

# A

## Appendix

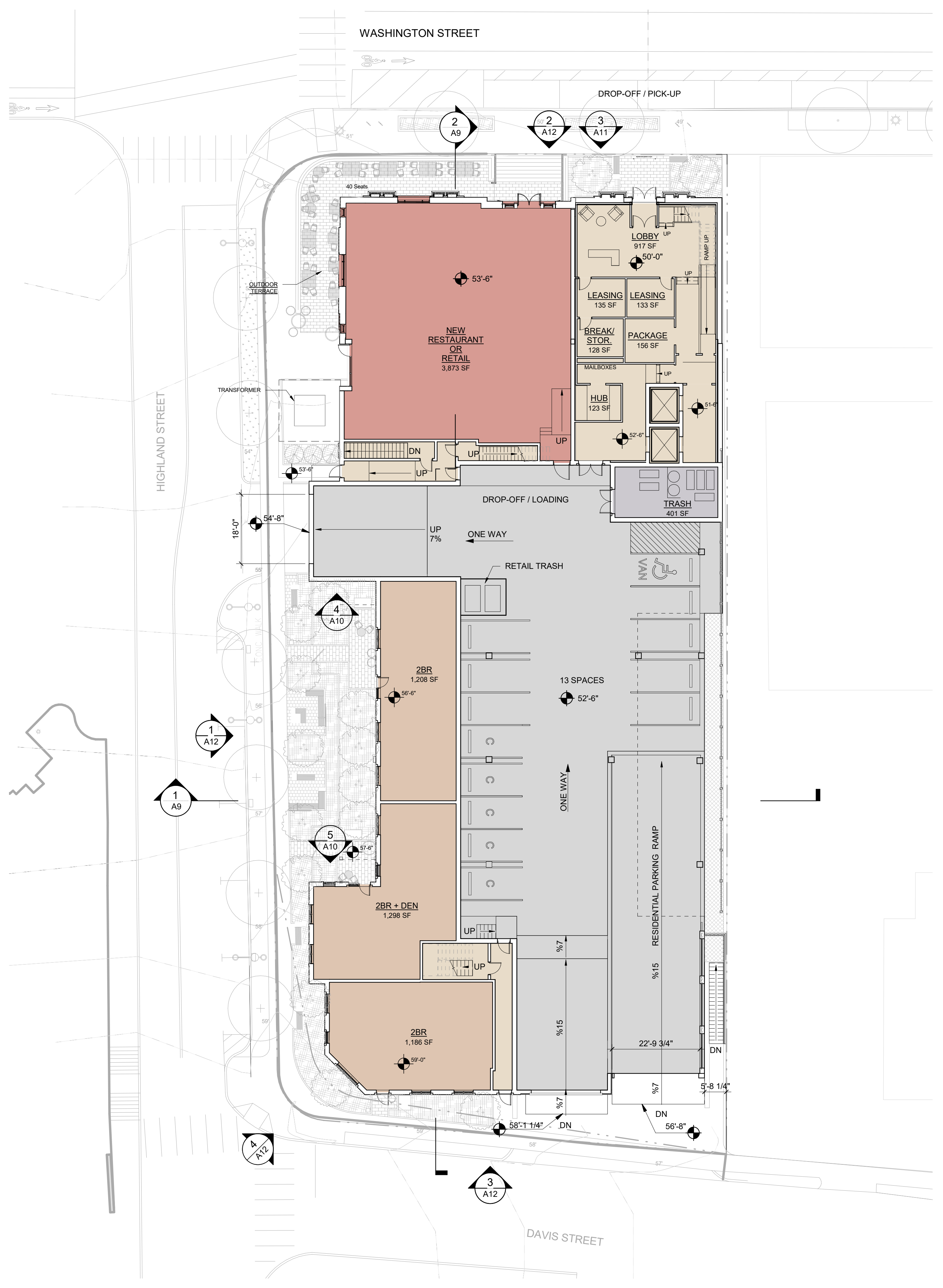
- › Site Plan
- › February 2022 Traffic Count Data
- › October 2021 Traffic Count Data
- › Count Adjustments
- › Public Transportation Schedules
- › Crash Data (2015-2019)
- › Historic Traffic Growth
- › Site-Specific Traffic Growth
- › Trip Generation
- › Trip Distribution
- › Site-Generated Traffic Volume Networks
- › Synchro Capacity Analyses
- › Sight Distance

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## Site Plan

D

C



**1314  
WASHINGTON  
STREET**  
WEST NEWTON, MA

**OWNER**  
**MARK  
DEVELOPMENT**

MARK DEVELOPMENT  
275 GROVE STREET, SUITE 2-150  
NEWTON, MA 02466  
617.614.9149

**DESIGN ARCHITECT**  
**DAVID M.  
SCHWARZ  
ARCHITECTS**

DAVID M. SCHWARZ ARCHITECTS  
1707 L STREET NW, SUITE 400  
WASHINGTON, DC 20036  
202.862.0777

**CIVIL ENGINEER**  
**BOHLER**

BOHLER ENGINEERING  
352 TURNPIKE ROAD  
SOUTHBOROUGH, MA 01772  
508.480.9900

**LANDSCAPE ARCHITECT**  
**HALVORSON**  
Tighe&Bond STUDIO

HALVORSON | TIGHE & BOND STUDIO  
25 KINGSTON STREET  
BOSTON, MA 02111-2200  
617.536.0380

PROFESSIONAL SEAL

**REVISIONS**

| # | DATE | DESCRIPTION |
|---|------|-------------|
|   |      |             |
|   |      |             |
|   |      |             |
|   |      |             |
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**SPECIAL PERMIT / ZONE  
CHANGE PLANS**

NOT FOR  
CONSTRUCTION  
**ISSUED: MAY 2, 2022**

SHEET TITLE:  
LEVEL 1 PLAN

SHEET NO.:

**A2**

1

2

3

4

5

1

2

3

4

5

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## February 2022 Traffic Count Data





# Location Map: 228414 Newton, MA

Precision Data Industries, LLC 157 Washington Street, Suite 2, Hudson, MA 01749 ph: 508-875-0100 email: datarequests@pdillc.com



(7) 7-9am/ 4-6pm TMCs  
\*\* 2 VCUs @ D  
(2) 48HR VCU-ATRs w/ HRs

Client:  
VHB

Engineer:  
M. Duranleau

Site Code:

Date:  
Wed 2/9 thru Thurs 2/10/2022

PDI Job #  
228414

City, State:  
Newton, MA

Highland Street  
 south of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 228414 ATR 1

Count Date: **Wednesday, February 9, 2022**  
 Direction: **NB**

| AM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 AM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 12:15 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:30 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:45 AM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 1:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:00 AM  | 0        | 0          | 0                  | 0     | 1                 | 0                | 1     |
| 3:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 4:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:45 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 5:00 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 5:15 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 5:30 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 5:45 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 6:00 AM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 6:15 AM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 6:30 AM  | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 6:45 AM  | 0        | 0          | 8                  | 0     | 1                 | 0                | 9     |
| 7:00 AM  | 0        | 0          | 10                 | 0     | 1                 | 0                | 11    |
| 7:15 AM  | 0        | 0          | 9                  | 0     | 1                 | 0                | 10    |
| 7:30 AM  | 0        | 0          | 32                 | 0     | 0                 | 0                | 32    |
| 7:45 AM  | 0        | 0          | 37                 | 0     | 0                 | 0                | 37    |
| 8:00 AM  | 0        | 0          | 32                 | 0     | 2                 | 0                | 34    |
| 8:15 AM  | 0        | 0          | 37                 | 0     | 0                 | 0                | 37    |
| 8:30 AM  | 0        | 0          | 46                 | 0     | 0                 | 0                | 46    |
| 8:45 AM  | 0        | 0          | 48                 | 0     | 0                 | 0                | 48    |
| 9:00 AM  | 0        | 0          | 44                 | 0     | 1                 | 0                | 45    |
| 9:15 AM  | 0        | 0          | 25                 | 0     | 0                 | 0                | 25    |
| 9:30 AM  | 0        | 0          | 19                 | 0     | 0                 | 0                | 19    |
| 9:45 AM  | 0        | 0          | 20                 | 0     | 0                 | 0                | 20    |
| 10:00 AM | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |
| 10:15 AM | 0        | 0          | 12                 | 0     | 1                 | 0                | 13    |
| 10:30 AM | 0        | 0          | 17                 | 0     | 1                 | 0                | 18    |
| 10:45 AM | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |
| 11:00 AM | 0        | 0          | 20                 | 0     | 0                 | 0                | 20    |
| 11:15 AM | 0        | 0          | 30                 | 0     | 0                 | 0                | 30    |
| 11:30 AM | 0        | 0          | 25                 | 0     | 1                 | 0                | 26    |
| 11:45 AM | 0        | 0          | 29                 | 0     | 0                 | 0                | 29    |

| PM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 PM | 0        | 0          | 32                 | 0     | 1                 | 0                | 33    |
| 12:15 PM | 0        | 0          | 29                 | 0     | 0                 | 0                | 29    |
| 12:30 PM | 0        | 0          | 30                 | 0     | 0                 | 0                | 30    |
| 12:45 PM | 0        | 0          | 29                 | 0     | 0                 | 0                | 29    |
| 1:00 PM  | 0        | 0          | 28                 | 0     | 0                 | 0                | 28    |
| 1:15 PM  | 0        | 0          | 20                 | 1     | 1                 | 0                | 22    |
| 1:30 PM  | 0        | 0          | 26                 | 0     | 1                 | 0                | 27    |
| 1:45 PM  | 0        | 0          | 30                 | 0     | 0                 | 0                | 30    |
| 2:00 PM  | 0        | 0          | 26                 | 0     | 0                 | 0                | 26    |
| 2:15 PM  | 0        | 0          | 32                 | 0     | 0                 | 0                | 32    |
| 2:30 PM  | 0        | 0          | 38                 | 0     | 0                 | 0                | 38    |
| 2:45 PM  | 0        | 0          | 40                 | 0     | 0                 | 0                | 40    |
| 3:00 PM  | 0        | 0          | 42                 | 0     | 0                 | 0                | 42    |
| 3:15 PM  | 0        | 0          | 46                 | 0     | 0                 | 0                | 46    |
| 3:30 PM  | 0        | 0          | 45                 | 1     | 0                 | 0                | 46    |
| 3:45 PM  | 0        | 0          | 51                 | 0     | 1                 | 0                | 52    |
| 4:00 PM  | 0        | 0          | 57                 | 1     | 0                 | 0                | 58    |
| 4:15 PM  | 0        | 0          | 55                 | 0     | 0                 | 0                | 55    |
| 4:30 PM  | 0        | 0          | 48                 | 1     | 0                 | 0                | 49    |
| 4:45 PM  | 0        | 0          | 56                 | 0     | 0                 | 0                | 56    |
| 5:00 PM  | 0        | 0          | 50                 | 0     | 0                 | 0                | 50    |
| 5:15 PM  | 0        | 0          | 65                 | 0     | 0                 | 0                | 65    |
| 5:30 PM  | 0        | 0          | 50                 | 0     | 1                 | 0                | 51    |
| 5:45 PM  | 0        | 0          | 43                 | 0     | 0                 | 0                | 43    |
| 6:00 PM  | 0        | 0          | 53                 | 0     | 0                 | 0                | 53    |
| 6:15 PM  | 0        | 0          | 52                 | 0     | 2                 | 0                | 54    |
| 6:30 PM  | 0        | 0          | 45                 | 0     | 0                 | 0                | 45    |
| 6:45 PM  | 0        | 0          | 23                 | 0     | 0                 | 0                | 23    |
| 7:00 PM  | 0        | 0          | 29                 | 0     | 0                 | 0                | 29    |
| 7:15 PM  | 0        | 0          | 28                 | 0     | 0                 | 0                | 28    |
| 7:30 PM  | 0        | 0          | 21                 | 0     | 0                 | 0                | 21    |
| 7:45 PM  | 0        | 0          | 21                 | 0     | 0                 | 0                | 21    |
| 8:00 PM  | 0        | 0          | 22                 | 0     | 0                 | 0                | 22    |
| 8:15 PM  | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |
| 8:30 PM  | 0        | 0          | 12                 | 0     | 0                 | 0                | 12    |
| 8:45 PM  | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 9:00 PM  | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |
| 9:15 PM  | 0        | 0          | 18                 | 0     | 0                 | 0                | 18    |
| 9:30 PM  | 0        | 0          | 14                 | 0     | 0                 | 0                | 14    |
| 9:45 PM  | 0        | 0          | 2                  | 0     | 1                 | 0                | 3     |
| 10:00 PM | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 10:15 PM | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 10:30 PM | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 10:45 PM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 11:00 PM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 11:15 PM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 11:30 PM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 11:45 PM | 0        | 0          | 2                  | 0     | 1                 | 0                | 3     |

AM Total 0 0 562 0 10 0 572  
 Percentage 0.00% 0.00% 98.25% 0.00% 1.75% 0.00%

PM Total 0 0 1378 4 9 0 1391  
 Percentage 0.00% 0.00% 99.07% 0.29% 0.65% 0.00%

AM Peak 12:00 AM 12:00 AM 8:15 AM 12:00 AM 6:30 AM 12:00 AM 8:15 AM  
 Volume 0 0 175 0 3 0 176

PM Peak 12:00 PM 12:00 PM 4:45 PM 3:15 PM 5:30 PM 12:00 PM 4:45 PM  
 Volume 0 0 221 2 3 0 222

Day Total 0 0 1940 4 19 0 1963  
 Percentage 0.00% 0.00% 98.83% 0.20% 0.97% 0.00%

Highland Street  
 south of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 228414 ATR 1

Count Date: Thursday, February 10, 2022  
 Direction: NB

| AM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:15 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:30 AM | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 12:45 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:00 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 2:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 2:30 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 2:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:30 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 3:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:45 AM  | 0        | 0          | 0                  | 0     | 1                 | 0                | 1     |
| 5:00 AM  | 0        | 0          | 1                  | 0     | 1                 | 0                | 2     |
| 5:15 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 5:30 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 5:45 AM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 6:00 AM  | 1        | 0          | 2                  | 0     | 0                 | 0                | 3     |
| 6:15 AM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 6:30 AM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 6:45 AM  | 0        | 0          | 4                  | 0     | 1                 | 0                | 5     |
| 7:00 AM  | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 7:15 AM  | 1        | 0          | 45                 | 0     | 0                 | 0                | 46    |
| 7:30 AM  | 0        | 0          | 87                 | 0     | 2                 | 1                | 90    |
| 7:45 AM  | 0        | 0          | 84                 | 0     | 1                 | 1                | 86    |
| 8:00 AM  | 0        | 0          | 67                 | 0     | 0                 | 0                | 67    |
| 8:15 AM  | 0        | 0          | 86                 | 0     | 2                 | 0                | 88    |
| 8:30 AM  | 0        | 0          | 86                 | 0     | 3                 | 0                | 89    |
| 8:45 AM  | 0        | 0          | 98                 | 0     | 0                 | 0                | 98    |
| 9:00 AM  | 0        | 0          | 87                 | 0     | 0                 | 0                | 87    |
| 9:15 AM  | 0        | 0          | 53                 | 0     | 0                 | 0                | 53    |
| 9:30 AM  | 0        | 0          | 48                 | 0     | 4                 | 0                | 52    |
| 9:45 AM  | 0        | 0          | 47                 | 0     | 2                 | 0                | 49    |
| 10:00 AM | 0        | 1          | 56                 | 0     | 2                 | 0                | 59    |
| 10:15 AM | 0        | 0          | 49                 | 0     | 1                 | 0                | 50    |
| 10:30 AM | 0        | 0          | 40                 | 0     | 1                 | 0                | 41    |
| 10:45 AM | 0        | 0          | 47                 | 0     | 1                 | 0                | 48    |
| 11:00 AM | 0        | 0          | 45                 | 0     | 1                 | 0                | 46    |
| 11:15 AM | 0        | 0          | 49                 | 0     | 1                 | 0                | 50    |
| 11:30 AM | 0        | 0          | 45                 | 0     | 1                 | 0                | 46    |
| 11:45 AM | 0        | 0          | 47                 | 0     | 2                 | 0                | 49    |

| PM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 PM | 0        | 0          | 73                 | 0     | 0                 | 0                | 73    |
| 12:15 PM | 0        | 0          | 54                 | 0     | 0                 | 0                | 54    |
| 12:30 PM | 0        | 0          | 48                 | 0     | 0                 | 0                | 48    |
| 12:45 PM | 0        | 0          | 51                 | 0     | 2                 | 0                | 53    |
| 1:00 PM  | 0        | 0          | 60                 | 0     | 0                 | 0                | 60    |
| 1:15 PM  | 0        | 0          | 58                 | 0     | 1                 | 0                | 59    |
| 1:30 PM  | 0        | 0          | 47                 | 1     | 3                 | 0                | 51    |
| 1:45 PM  | 0        | 0          | 75                 | 0     | 3                 | 0                | 78    |
| 2:00 PM  | 0        | 0          | 43                 | 0     | 0                 | 0                | 43    |
| 2:15 PM  | 0        | 0          | 66                 | 0     | 1                 | 0                | 67    |
| 2:30 PM  | 0        | 0          | 58                 | 0     | 3                 | 0                | 61    |
| 2:45 PM  | 0        | 0          | 64                 | 0     | 3                 | 0                | 67    |
| 3:00 PM  | 0        | 0          | 87                 | 0     | 2                 | 0                | 89    |
| 3:15 PM  | 0        | 0          | 70                 | 0     | 1                 | 0                | 71    |
| 3:30 PM  | 0        | 0          | 84                 | 1     | 1                 | 0                | 86    |
| 3:45 PM  | 0        | 0          | 97                 | 0     | 0                 | 0                | 97    |
| 4:00 PM  | 0        | 0          | 94                 | 0     | 1                 | 0                | 95    |
| 4:15 PM  | 0        | 0          | 89                 | 2     | 2                 | 0                | 93    |
| 4:30 PM  | 0        | 0          | 87                 | 1     | 0                 | 0                | 88    |
| 4:45 PM  | 0        | 0          | 89                 | 0     | 0                 | 0                | 89    |
| 5:00 PM  | 0        | 0          | 66                 | 0     | 0                 | 0                | 66    |
| 5:15 PM  | 0        | 0          | 77                 | 0     | 0                 | 0                | 77    |
| 5:30 PM  | 0        | 0          | 71                 | 0     | 1                 | 0                | 72    |
| 5:45 PM  | 0        | 0          | 55                 | 0     | 1                 | 0                | 56    |
| 6:00 PM  | 0        | 0          | 52                 | 0     | 0                 | 0                | 52    |
| 6:15 PM  | 0        | 0          | 60                 | 0     | 0                 | 0                | 60    |
| 6:30 PM  | 0        | 0          | 51                 | 0     | 0                 | 0                | 51    |
| 6:45 PM  | 0        | 0          | 47                 | 0     | 1                 | 0                | 48    |
| 7:00 PM  | 0        | 0          | 26                 | 0     | 0                 | 0                | 26    |
| 7:15 PM  | 0        | 0          | 32                 | 0     | 1                 | 0                | 33    |
| 7:30 PM  | 0        | 0          | 25                 | 0     | 0                 | 0                | 25    |
| 7:45 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 8:00 PM  | 0        | 0          | 21                 | 0     | 0                 | 0                | 21    |
| 8:15 PM  | 0        | 0          | 22                 | 0     | 0                 | 0                | 22    |
| 8:30 PM  | 0        | 0          | 22                 | 0     | 0                 | 0                | 22    |
| 8:45 PM  | 0        | 0          | 12                 | 0     | 0                 | 0                | 12    |
| 9:00 PM  | 0        | 0          | 20                 | 0     | 0                 | 0                | 20    |
| 9:15 PM  | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 9:30 PM  | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 9:45 PM  | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |
| 10:00 PM | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 10:15 PM | 0        | 0          | 4                  | 0     | 1                 | 0                | 5     |
| 10:30 PM | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 10:45 PM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 11:00 PM | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 11:15 PM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 11:30 PM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 11:45 PM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |

AM Total 2 1 1206 0 27 2 1238  
 Percentage 0.16% 0.08% 97.42% 0.00% 2.18% 0.16%

PM Total 0 0 2141 5 28 0 2174  
 Percentage 0.00% 0.00% 98.48% 0.23% 1.29% 0.00%

AM Peak 5:15 AM 9:15 AM 8:15 AM 12:00 AM 9:30 AM 7:00 AM 8:15 AM  
 Volume 1 1 357 0 9 2 362

PM Peak 12:00 PM 12:00 PM 3:45 PM 3:30 PM 2:15 PM 12:00 PM 3:45 PM  
 Volume 0 0 367 3 9 0 373

Day Total 2 1 3347 5 55 2 3412  
 Percentage 0.06% 0.03% 98.09% 0.15% 1.61% 0.06%

Highland Street  
 south of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 228414 ATR 1

Count Date: **Wednesday, February 9, 2022**  
 Direction: **SB**

| AM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 AM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 12:15 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:30 AM | 0        | 0          | 0                  | 0     | 1                 | 0                | 1     |
| 12:45 AM | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 1:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:30 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 1:45 AM  | 0        | 0          | 4                  | 0     | 1                 | 0                | 5     |
| 2:00 AM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 2:15 AM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 2:30 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 2:45 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 3:00 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 3:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 3:30 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 3:45 AM  | 0        | 0          | 1                  | 0     | 1                 | 0                | 2     |
| 4:00 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 4:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 4:30 AM  | 0        | 0          | 1                  | 0     | 1                 | 0                | 2     |
| 4:45 AM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 5:00 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 5:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 5:30 AM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 5:45 AM  | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 6:00 AM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 6:15 AM  | 0        | 0          | 14                 | 0     | 0                 | 0                | 14    |
| 6:30 AM  | 0        | 0          | 25                 | 1     | 1                 | 0                | 27    |
| 6:45 AM  | 0        | 0          | 38                 | 0     | 0                 | 0                | 38    |
| 7:00 AM  | 0        | 0          | 30                 | 0     | 1                 | 0                | 31    |
| 7:15 AM  | 0        | 0          | 38                 | 0     | 0                 | 0                | 38    |
| 7:30 AM  | 0        | 0          | 47                 | 0     | 1                 | 0                | 48    |
| 7:45 AM  | 0        | 0          | 77                 | 0     | 1                 | 0                | 78    |
| 8:00 AM  | 0        | 0          | 80                 | 0     | 0                 | 0                | 80    |
| 8:15 AM  | 0        | 0          | 77                 | 0     | 1                 | 0                | 78    |
| 8:30 AM  | 0        | 0          | 78                 | 0     | 0                 | 0                | 78    |
| 8:45 AM  | 0        | 0          | 95                 | 0     | 5                 | 0                | 100   |
| 9:00 AM  | 0        | 0          | 56                 | 0     | 0                 | 0                | 56    |
| 9:15 AM  | 0        | 0          | 32                 | 1     | 3                 | 0                | 36    |
| 9:30 AM  | 0        | 0          | 36                 | 1     | 1                 | 0                | 38    |
| 9:45 AM  | 0        | 0          | 38                 | 0     | 0                 | 0                | 38    |
| 10:00 AM | 0        | 0          | 38                 | 0     | 2                 | 0                | 40    |
| 10:15 AM | 0        | 0          | 41                 | 0     | 1                 | 1                | 43    |
| 10:30 AM | 0        | 0          | 44                 | 0     | 0                 | 0                | 44    |
| 10:45 AM | 0        | 0          | 37                 | 0     | 0                 | 0                | 37    |
| 11:00 AM | 0        | 0          | 36                 | 0     | 1                 | 0                | 37    |
| 11:15 AM | 0        | 0          | 30                 | 0     | 1                 | 0                | 31    |
| 11:30 AM | 0        | 0          | 31                 | 0     | 2                 | 0                | 33    |
| 11:45 AM | 0        | 0          | 49                 | 0     | 0                 | 0                | 49    |

| PM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 PM | 0        | 0          | 37                 | 0     | 0                 | 0                | 37    |
| 12:15 PM | 0        | 0          | 47                 | 0     | 2                 | 0                | 49    |
| 12:30 PM | 0        | 0          | 45                 | 0     | 0                 | 0                | 45    |
| 12:45 PM | 0        | 0          | 47                 | 0     | 2                 | 0                | 49    |
| 1:00 PM  | 0        | 0          | 40                 | 0     | 2                 | 0                | 42    |
| 1:15 PM  | 0        | 0          | 47                 | 1     | 2                 | 0                | 50    |
| 1:30 PM  | 0        | 0          | 44                 | 0     | 1                 | 0                | 45    |
| 1:45 PM  | 0        | 0          | 47                 | 1     | 0                 | 0                | 48    |
| 2:00 PM  | 0        | 0          | 45                 | 0     | 0                 | 0                | 45    |
| 2:15 PM  | 0        | 0          | 44                 | 0     | 1                 | 0                | 45    |
| 2:30 PM  | 0        | 0          | 55                 | 0     | 0                 | 0                | 55    |
| 2:45 PM  | 0        | 0          | 50                 | 0     | 1                 | 0                | 51    |
| 3:00 PM  | 0        | 0          | 44                 | 0     | 1                 | 0                | 45    |
| 3:15 PM  | 0        | 0          | 58                 | 0     | 0                 | 0                | 58    |
| 3:30 PM  | 0        | 0          | 59                 | 0     | 0                 | 0                | 59    |
| 3:45 PM  | 0        | 0          | 64                 | 1     | 1                 | 0                | 66    |
| 4:00 PM  | 0        | 0          | 66                 | 0     | 0                 | 0                | 66    |
| 4:15 PM  | 0        | 0          | 63                 | 0     | 0                 | 0                | 63    |
| 4:30 PM  | 0        | 0          | 58                 | 1     | 1                 | 0                | 60    |
| 4:45 PM  | 0        | 0          | 55                 | 0     | 0                 | 0                | 55    |
| 5:00 PM  | 0        | 0          | 65                 | 0     | 0                 | 0                | 65    |
| 5:15 PM  | 1        | 0          | 55                 | 0     | 1                 | 0                | 57    |
| 5:30 PM  | 0        | 0          | 60                 | 0     | 0                 | 0                | 60    |
| 5:45 PM  | 0        | 0          | 71                 | 0     | 1                 | 0                | 72    |
| 6:00 PM  | 0        | 0          | 66                 | 0     | 0                 | 0                | 66    |
| 6:15 PM  | 0        | 0          | 37                 | 0     | 0                 | 0                | 37    |
| 6:30 PM  | 0        | 0          | 37                 | 0     | 0                 | 0                | 37    |
| 6:45 PM  | 1        | 0          | 51                 | 0     | 0                 | 0                | 52    |
| 7:00 PM  | 0        | 0          | 32                 | 0     | 0                 | 0                | 32    |
| 7:15 PM  | 0        | 0          | 28                 | 0     | 0                 | 0                | 28    |
| 7:30 PM  | 0        | 0          | 33                 | 0     | 0                 | 0                | 33    |
| 7:45 PM  | 0        | 0          | 31                 | 0     | 0                 | 0                | 31    |
| 8:00 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 8:15 PM  | 0        | 0          | 24                 | 0     | 0                 | 0                | 24    |
| 8:30 PM  | 0        | 0          | 17                 | 0     | 1                 | 0                | 18    |
| 8:45 PM  | 0        | 0          | 13                 | 0     | 1                 | 0                | 14    |
| 9:00 PM  | 0        | 0          | 18                 | 0     | 0                 | 0                | 18    |
| 9:15 PM  | 0        | 0          | 14                 | 0     | 0                 | 0                | 14    |
| 9:30 PM  | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 9:45 PM  | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 10:00 PM | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 10:15 PM | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 10:30 PM | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 10:45 PM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 11:00 PM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 11:15 PM | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 11:30 PM | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 11:45 PM | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |

**AM Total** 0 0 1115 3 25 1 1144  
**Percentage** 0.00% 0.00% 97.47% 0.26% 2.19% 0.09%

**AM Peak** 12:00 AM 12:00 AM 8:00 AM 8:45 AM 8:45 AM 9:30 AM 8:00 AM  
**Volume** 0 0 330 2 9 1 336

**PM Total** 2 0 1747 4 18 0 1771  
**Percentage** 0.11% 0.00% 98.64% 0.23% 1.02% 0.00%

**PM Peak** 4:30 PM 12:00 PM 3:30 PM 1:00 PM 12:45 PM 12:00 PM 3:45 PM  
**Volume** 1 0 252 2 7 0 255

**Day Total** 2 0 2862 7 43 1 2915  
**Percentage** 0.07% 0.00% 98.18% 0.24% 1.48% 0.03%



Highland Street  
 south of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 228414 ATR 1

Count Date: Thursday, February 10, 2022  
 Direction: SB

| AM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:15 AM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 12:30 AM | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 12:45 AM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 1:00 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 1:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:30 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 1:45 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 2:00 AM  | 0        | 0          | 1                  | 0     | 1                 | 1                | 3     |
| 2:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 2:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:45 AM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 3:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 3:30 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 3:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:15 AM  | 0        | 0          | 3                  | 0     | 1                 | 0                | 4     |
| 4:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:45 AM  | 0        | 0          | 4                  | 0     | 2                 | 0                | 6     |
| 5:00 AM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 5:15 AM  | 0        | 0          | 2                  | 1     | 0                 | 0                | 3     |
| 5:30 AM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 5:45 AM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 6:00 AM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 6:15 AM  | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 6:30 AM  | 0        | 0          | 22                 | 0     | 0                 | 0                | 22    |
| 6:45 AM  | 0        | 0          | 26                 | 0     | 0                 | 0                | 26    |
| 7:00 AM  | 0        | 0          | 33                 | 0     | 1                 | 0                | 34    |
| 7:15 AM  | 0        | 0          | 48                 | 0     | 1                 | 1                | 50    |
| 7:30 AM  | 0        | 0          | 57                 | 0     | 1                 | 0                | 58    |
| 7:45 AM  | 0        | 0          | 75                 | 0     | 1                 | 0                | 76    |
| 8:00 AM  | 0        | 0          | 70                 | 0     | 1                 | 0                | 71    |
| 8:15 AM  | 0        | 0          | 77                 | 0     | 0                 | 0                | 77    |
| 8:30 AM  | 0        | 0          | 87                 | 0     | 1                 | 0                | 88    |
| 8:45 AM  | 0        | 0          | 83                 | 0     | 1                 | 0                | 84    |
| 9:00 AM  | 0        | 0          | 53                 | 0     | 0                 | 0                | 53    |
| 9:15 AM  | 0        | 0          | 36                 | 1     | 3                 | 0                | 40    |
| 9:30 AM  | 0        | 0          | 36                 | 0     | 1                 | 0                | 37    |
| 9:45 AM  | 0        | 0          | 50                 | 0     | 0                 | 0                | 50    |
| 10:00 AM | 0        | 0          | 39                 | 0     | 2                 | 0                | 41    |
| 10:15 AM | 0        | 0          | 36                 | 0     | 2                 | 0                | 38    |
| 10:30 AM | 0        | 0          | 27                 | 0     | 3                 | 0                | 30    |
| 10:45 AM | 0        | 0          | 44                 | 0     | 0                 | 0                | 44    |
| 11:00 AM | 0        | 0          | 32                 | 0     | 1                 | 0                | 33    |
| 11:15 AM | 0        | 0          | 51                 | 0     | 1                 | 0                | 52    |
| 11:30 AM | 0        | 0          | 38                 | 0     | 2                 | 0                | 40    |
| 11:45 AM | 0        | 0          | 48                 | 0     | 0                 | 0                | 48    |

| PM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 PM | 0        | 0          | 46                 | 0     | 0                 | 0                | 46    |
| 12:15 PM | 0        | 0          | 42                 | 0     | 4                 | 0                | 46    |
| 12:30 PM | 0        | 0          | 59                 | 0     | 0                 | 0                | 59    |
| 12:45 PM | 0        | 0          | 46                 | 0     | 0                 | 0                | 46    |
| 1:00 PM  | 0        | 0          | 33                 | 0     | 1                 | 0                | 34    |
| 1:15 PM  | 0        | 0          | 55                 | 1     | 0                 | 0                | 56    |
| 1:30 PM  | 0        | 0          | 34                 | 0     | 0                 | 1                | 35    |
| 1:45 PM  | 0        | 0          | 38                 | 0     | 2                 | 0                | 40    |
| 2:00 PM  | 0        | 0          | 32                 | 0     | 1                 | 1                | 34    |
| 2:15 PM  | 0        | 0          | 54                 | 0     | 0                 | 0                | 54    |
| 2:30 PM  | 0        | 0          | 49                 | 1     | 0                 | 0                | 50    |
| 2:45 PM  | 0        | 0          | 48                 | 0     | 0                 | 0                | 48    |
| 3:00 PM  | 0        | 0          | 52                 | 0     | 0                 | 0                | 52    |
| 3:15 PM  | 0        | 0          | 57                 | 0     | 0                 | 0                | 57    |
| 3:30 PM  | 0        | 0          | 65                 | 0     | 0                 | 0                | 65    |
| 3:45 PM  | 0        | 0          | 52                 | 0     | 0                 | 0                | 52    |
| 4:00 PM  | 0        | 0          | 63                 | 0     | 1                 | 0                | 64    |
| 4:15 PM  | 0        | 1          | 58                 | 1     | 0                 | 0                | 60    |
| 4:30 PM  | 0        | 0          | 56                 | 1     | 0                 | 0                | 57    |
| 4:45 PM  | 0        | 0          | 44                 | 0     | 2                 | 0                | 46    |
| 5:00 PM  | 1        | 0          | 57                 | 0     | 0                 | 0                | 58    |
| 5:15 PM  | 0        | 0          | 51                 | 0     | 0                 | 0                | 51    |
| 5:30 PM  | 0        | 0          | 55                 | 0     | 2                 | 0                | 57    |
| 5:45 PM  | 0        | 0          | 53                 | 0     | 0                 | 0                | 53    |
| 6:00 PM  | 0        | 0          | 48                 | 0     | 0                 | 0                | 48    |
| 6:15 PM  | 0        | 0          | 55                 | 0     | 0                 | 0                | 55    |
| 6:30 PM  | 0        | 0          | 48                 | 0     | 0                 | 0                | 48    |
| 6:45 PM  | 0        | 0          | 52                 | 0     | 1                 | 0                | 53    |
| 7:00 PM  | 0        | 0          | 44                 | 0     | 1                 | 0                | 45    |
| 7:15 PM  | 0        | 0          | 35                 | 0     | 1                 | 0                | 36    |
| 7:30 PM  | 0        | 0          | 21                 | 0     | 0                 | 0                | 21    |
| 7:45 PM  | 0        | 0          | 20                 | 0     | 0                 | 0                | 20    |
| 8:00 PM  | 0        | 0          | 21                 | 0     | 0                 | 0                | 21    |
| 8:15 PM  | 1        | 0          | 19                 | 0     | 0                 | 0                | 20    |
| 8:30 PM  | 0        | 0          | 21                 | 0     | 0                 | 0                | 21    |
| 8:45 PM  | 0        | 0          | 23                 | 0     | 0                 | 0                | 23    |
| 9:00 PM  | 0        | 0          | 18                 | 0     | 0                 | 0                | 18    |
| 9:15 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 9:30 PM  | 0        | 0          | 14                 | 0     | 0                 | 0                | 14    |
| 9:45 PM  | 0        | 0          | 23                 | 0     | 0                 | 0                | 23    |
| 10:00 PM | 0        | 0          | 8                  | 0     | 1                 | 0                | 9     |
| 10:15 PM | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 10:30 PM | 0        | 0          | 4                  | 0     | 1                 | 0                | 5     |
| 10:45 PM | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 11:00 PM | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 11:15 PM | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 11:30 PM | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 11:45 PM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |

AM Total 0 0 1126 2 26 2 1156  
 Percentage 0.00% 0.00% 97.40% 0.17% 2.25% 0.17%

AM Peak 12:00 AM 12:00 AM 8:00 AM 4:30 AM 9:45 AM 1:15 AM 8:00 AM  
 Volume 0 0 317 1 7 1 320

PM Total 2 1 1717 4 18 2 1744  
 Percentage 0.11% 0.06% 98.45% 0.23% 1.03% 0.11%

PM Peak 4:15 PM 3:30 PM 3:30 PM 3:45 PM 12:15 PM 1:15 PM 3:30 PM  
 Volume 1 1 238 2 5 2 241

Day Total 2 1 2843 6 44 4 2900  
 Percentage 0.07% 0.03% 98.03% 0.21% 1.52% 0.14%

Highland Street  
 south of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118  
**Weekly Report**

PDI File # 228414 ATR 1

Direction: NB

| Day<br>Date      | Wednesday<br>02/09/22 |                | Thursday<br>02/10/22 |                |          |          |          |          |          |          |          |          |          |          | Week<br>Ave |             |                |                |
|------------------|-----------------------|----------------|----------------------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------|-------------|----------------|----------------|
|                  | AM                    | PM             | AM                   | PM             | AM       | PM       | AM       | PM       | AM       | PM       | AM       | PM       | AM       | PM       | AM          | PM          |                |                |
| 12:00            | 3                     | 33             | 0                    | 73             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 53          |                |                |
| 12:15            | 0                     | 29             | 0                    | 54             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 42          |                |                |
| 12:30            | 0                     | 30             | 2                    | 48             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 39          |                |                |
| 12:45            | 1                     | 29             | 0                    | 53             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 41          |                |                |
| 1:00             | 0                     | 28             | 0                    | 60             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 44          |                |                |
| 1:15             | 0                     | 22             | 0                    | 59             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 41          |                |                |
| 1:30             | 0                     | 27             | 0                    | 51             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 39          |                |                |
| 1:45             | 0                     | 30             | 0                    | 78             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 54          |                |                |
| 2:00             | 0                     | 26             | 1                    | 43             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 35          |                |                |
| 2:15             | 0                     | 32             | 1                    | 67             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 50          |                |                |
| 2:30             | 0                     | 38             | 1                    | 61             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 50          |                |                |
| 2:45             | 0                     | 40             | 0                    | 67             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 54          |                |                |
| 3:00             | 1                     | 42             | 0                    | 89             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 66          |                |                |
| 3:15             | 0                     | 46             | 0                    | 71             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 59          |                |                |
| 3:30             | 0                     | 46             | 1                    | 86             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 66          |                |                |
| 3:45             | 0                     | 52             | 0                    | 97             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 75          |                |                |
| 4:00             | 0                     | 58             | 0                    | 95             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 77          |                |                |
| 4:15             | 1                     | 55             | 0                    | 93             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 74          |                |                |
| 4:30             | 0                     | 49             | 0                    | 88             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 69          |                |                |
| 4:45             | 1                     | 56             | 1                    | 89             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 73          |                |                |
| 5:00             | 1                     | 50             | 2                    | 66             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 58          |                |                |
| 5:15             | 2                     | 65             | 2                    | 77             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 71          |                |                |
| 5:30             | 2                     | 51             | 1                    | 72             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 62          |                |                |
| 5:45             | 1                     | 43             | 3                    | 56             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 50          |                |                |
| 6:00             | 5                     | 53             | 3                    | 52             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 4           | 53          |                |                |
| 6:15             | 7                     | 54             | 5                    | 60             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 6           | 57          |                |                |
| 6:30             | 6                     | 45             | 5                    | 51             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 6           | 48          |                |                |
| 6:45             | 9                     | 23             | 5                    | 48             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 7           | 36          |                |                |
| 7:00             | 11                    | 29             | 11                   | 26             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 11          | 28          |                |                |
| 7:15             | 10                    | 28             | 46                   | 33             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 28          | 31          |                |                |
| 7:30             | 32                    | 21             | 90                   | 25             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 61          | 23          |                |                |
| 7:45             | 37                    | 21             | 86                   | 15             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 62          | 18          |                |                |
| 8:00             | 34                    | 22             | 67                   | 21             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 51          | 22          |                |                |
| 8:15             | 37                    | 16             | 88                   | 22             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 63          | 19          |                |                |
| 8:30             | 46                    | 12             | 89                   | 22             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 68          | 17          |                |                |
| 8:45             | 48                    | 11             | 98                   | 12             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 73          | 12          |                |                |
| 9:00             | 45                    | 16             | 87                   | 20             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 66          | 18          |                |                |
| 9:15             | 25                    | 18             | 53                   | 13             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 39          | 16          |                |                |
| 9:30             | 19                    | 14             | 52                   | 6              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 36          | 10          |                |                |
| 9:45             | 20                    | 3              | 49                   | 16             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 35          | 10          |                |                |
| 10:00            | 16                    | 2              | 59                   | 10             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 38          | 6           |                |                |
| 10:15            | 13                    | 8              | 50                   | 5              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 32          | 7           |                |                |
| 10:30            | 18                    | 5              | 41                   | 6              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 30          | 6           |                |                |
| 10:45            | 16                    | 1              | 48                   | 3              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 32          | 2           |                |                |
| 11:00            | 20                    | 3              | 46                   | 6              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 33          | 5           |                |                |
| 11:15            | 30                    | 3              | 50                   | 3              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 40          | 3           |                |                |
| 11:30            | 26                    | 3              | 46                   | 3              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 36          | 3           |                |                |
| 11:45            | 29                    | 3              | 49                   | 3              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 39          | 3           |                |                |
| <b>Total</b>     | <b>572</b>            | <b>1391</b>    | <b>1238</b>          | <b>2174</b>    | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>905</b>  | <b>1783</b> |                |                |
| <b>Day Total</b> | <b>1963</b>           |                | <b>3412</b>          |                | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>2688</b> |             |                |                |
| <b>Peak HR</b>   | <b>8:15 AM</b>        | <b>4:45 PM</b> | <b>8:15 AM</b>       | <b>3:45 PM</b> |          |          |          |          |          |          |          |          |          |          |             |             | <b>8:15 AM</b> | <b>3:45 PM</b> |
| <b>Volume</b>    | <b>176</b>            | <b>222</b>     | <b>362</b>           | <b>373</b>     |          |          |          |          |          |          |          |          |          |          |             |             | <b>269</b>     | <b>294</b>     |

Highland Street  
 south of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

PDI File # 228414 ATR 1

Direction: SB

Weekly Report

| Day<br>Date      | Wednesday<br>02/09/22 |                | Thursday<br>02/10/22 |                |          |          |          |          |          |          |          |          |          |          | Week<br>Ave |             |                |                |
|------------------|-----------------------|----------------|----------------------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------|-------------|----------------|----------------|
|                  | AM                    | PM             | AM                   | PM             | AM       | PM       | AM       | PM       | AM       | PM       | AM       | PM       | AM       | PM       | AM          | PM          |                |                |
| 12:00            | 1                     | 37             | 0                    | 46             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 42          |                |                |
| 12:15            | 0                     | 49             | 1                    | 46             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 48          |                |                |
| 12:30            | 1                     | 45             | 2                    | 59             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 52          |                |                |
| 12:45            | 2                     | 49             | 1                    | 46             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 48          |                |                |
| 1:00             | 0                     | 42             | 2                    | 34             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 38          |                |                |
| 1:15             | 0                     | 50             | 0                    | 56             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 53          |                |                |
| 1:30             | 2                     | 45             | 1                    | 35             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 40          |                |                |
| 1:45             | 5                     | 48             | 1                    | 40             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 3           | 44          |                |                |
| 2:00             | 5                     | 45             | 3                    | 34             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 4           | 40          |                |                |
| 2:15             | 3                     | 45             | 1                    | 54             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 50          |                |                |
| 2:30             | 1                     | 55             | 0                    | 50             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 53          |                |                |
| 2:45             | 1                     | 51             | 3                    | 48             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 50          |                |                |
| 3:00             | 2                     | 45             | 0                    | 52             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 49          |                |                |
| 3:15             | 1                     | 58             | 1                    | 57             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 58          |                |                |
| 3:30             | 1                     | 59             | 2                    | 65             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 62          |                |                |
| 3:45             | 2                     | 66             | 0                    | 52             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 59          |                |                |
| 4:00             | 1                     | 66             | 0                    | 64             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 65          |                |                |
| 4:15             | 1                     | 63             | 4                    | 60             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 3           | 62          |                |                |
| 4:30             | 2                     | 60             | 0                    | 57             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 59          |                |                |
| 4:45             | 3                     | 55             | 6                    | 46             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 5           | 51          |                |                |
| 5:00             | 1                     | 65             | 4                    | 58             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 3           | 62          |                |                |
| 5:15             | 1                     | 57             | 3                    | 51             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 54          |                |                |
| 5:30             | 3                     | 60             | 5                    | 57             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 4           | 59          |                |                |
| 5:45             | 8                     | 72             | 7                    | 53             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 8           | 63          |                |                |
| 6:00             | 5                     | 66             | 4                    | 48             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 5           | 57          |                |                |
| 6:15             | 14                    | 37             | 13                   | 55             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 14          | 46          |                |                |
| 6:30             | 27                    | 37             | 22                   | 48             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 25          | 43          |                |                |
| 6:45             | 38                    | 52             | 26                   | 53             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 32          | 53          |                |                |
| 7:00             | 31                    | 32             | 34                   | 45             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 33          | 39          |                |                |
| 7:15             | 38                    | 28             | 50                   | 36             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 44          | 32          |                |                |
| 7:30             | 48                    | 33             | 58                   | 21             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 53          | 27          |                |                |
| 7:45             | 78                    | 31             | 76                   | 20             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 77          | 26          |                |                |
| 8:00             | 80                    | 15             | 71                   | 21             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 76          | 18          |                |                |
| 8:15             | 78                    | 24             | 77                   | 20             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 78          | 22          |                |                |
| 8:30             | 78                    | 18             | 88                   | 21             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 83          | 20          |                |                |
| 8:45             | 100                   | 14             | 84                   | 23             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 92          | 19          |                |                |
| 9:00             | 56                    | 18             | 53                   | 18             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 55          | 18          |                |                |
| 9:15             | 36                    | 14             | 40                   | 15             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 38          | 15          |                |                |
| 9:30             | 38                    | 13             | 37                   | 14             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 38          | 14          |                |                |
| 9:45             | 38                    | 8              | 50                   | 23             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 44          | 16          |                |                |
| 10:00            | 40                    | 10             | 41                   | 9              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 41          | 10          |                |                |
| 10:15            | 43                    | 5              | 38                   | 5              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 41          | 5           |                |                |
| 10:30            | 44                    | 8              | 30                   | 5              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 37          | 7           |                |                |
| 10:45            | 37                    | 3              | 44                   | 7              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 41          | 5           |                |                |
| 11:00            | 37                    | 3              | 33                   | 6              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 35          | 5           |                |                |
| 11:15            | 31                    | 5              | 52                   | 5              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 42          | 5           |                |                |
| 11:30            | 33                    | 4              | 40                   | 5              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 37          | 5           |                |                |
| 11:45            | 49                    | 6              | 48                   | 1              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 49          | 4           |                |                |
| <b>Total</b>     | <b>1144</b>           | <b>1771</b>    | <b>1156</b>          | <b>1744</b>    | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>1150</b> | <b>1758</b> |                |                |
| <b>Day Total</b> | <b>2915</b>           |                | <b>2900</b>          |                | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>2908</b> |             |                |                |
| <b>Peak HR</b>   | <b>8:00 AM</b>        | <b>3:45 PM</b> | <b>8:00 AM</b>       | <b>3:30 PM</b> |          |          |          |          |          |          |          |          |          |          |             |             | <b>8:00 AM</b> | <b>3:30 PM</b> |
| <b>Volume</b>    | <b>336</b>            | <b>255</b>     | <b>320</b>           | <b>241</b>     |          |          |          |          |          |          |          |          |          |          |             |             | <b>328</b>     | <b>248</b>     |

Davis Street  
 east of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 228414 ATR 2

Count Date: **Wednesday, February 9, 2022**  
 Direction: **EB**

| AM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 AM | 0        | 0          | 0                  | 0     | 1                 | 0                | 1     |
| 12:15 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:30 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:45 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:45 AM  | 0        | 0          | 0                  | 0     | 1                 | 0                | 1     |
| 2:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:45 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 4:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:30 AM  | 0        | 0          | 0                  | 0     | 1                 | 0                | 1     |
| 4:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:45 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 6:00 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 6:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 6:30 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 6:45 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 7:00 AM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 7:15 AM  | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 7:30 AM  | 0        | 0          | 17                 | 0     | 0                 | 0                | 17    |
| 7:45 AM  | 0        | 0          | 18                 | 0     | 0                 | 0                | 18    |
| 8:00 AM  | 0        | 0          | 17                 | 0     | 0                 | 0                | 17    |
| 8:15 AM  | 0        | 0          | 21                 | 0     | 0                 | 0                | 21    |
| 8:30 AM  | 0        | 0          | 34                 | 0     | 0                 | 0                | 34    |
| 8:45 AM  | 0        | 0          | 43                 | 0     | 1                 | 0                | 44    |
| 9:00 AM  | 0        | 0          | 23                 | 0     | 0                 | 0                | 23    |
| 9:15 AM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 9:30 AM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 9:45 AM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 10:00 AM | 0        | 0          | 14                 | 0     | 0                 | 0                | 14    |
| 10:15 AM | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 10:30 AM | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 10:45 AM | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 11:00 AM | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 11:15 AM | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 11:30 AM | 0        | 0          | 11                 | 0     | 2                 | 0                | 13    |
| 11:45 AM | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |

| PM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 PM | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 12:15 PM | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 12:30 PM | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 12:45 PM | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 1:00 PM  | 0        | 0          | 13                 | 0     | 1                 | 0                | 14    |
| 1:15 PM  | 0        | 0          | 14                 | 0     | 0                 | 0                | 14    |
| 1:30 PM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 1:45 PM  | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |
| 2:00 PM  | 0        | 0          | 9                  | 0     | 0                 | 0                | 9     |
| 2:15 PM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 2:30 PM  | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 2:45 PM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 3:00 PM  | 0        | 0          | 4                  | 0     | 2                 | 0                | 6     |
| 3:15 PM  | 0        | 0          | 9                  | 0     | 1                 | 0                | 10    |
| 3:30 PM  | 1        | 0          | 11                 | 0     | 0                 | 0                | 12    |
| 3:45 PM  | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |
| 4:00 PM  | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |
| 4:15 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 4:30 PM  | 0        | 0          | 17                 | 0     | 0                 | 0                | 17    |
| 4:45 PM  | 0        | 0          | 19                 | 0     | 0                 | 0                | 19    |
| 5:00 PM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 5:15 PM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 5:30 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 5:45 PM  | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 6:00 PM  | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 6:15 PM  | 0        | 0          | 12                 | 0     | 0                 | 0                | 12    |
| 6:30 PM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 6:45 PM  | 0        | 0          | 12                 | 0     | 0                 | 0                | 12    |
| 7:00 PM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 7:15 PM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 7:30 PM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 7:45 PM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 8:00 PM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 8:15 PM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 8:30 PM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 8:45 PM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 9:00 PM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 9:15 PM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 9:30 PM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 9:45 PM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 10:00 PM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 10:15 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 10:30 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 10:45 PM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 11:00 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:15 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:30 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:45 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |

**AM Total** 0 0 297 0 6 0 303  
**Percentage** 0.00% 0.00% 98.02% 0.00% 1.98% 0.00%

**AM Peak** 12:00 AM 12:00 AM 8:15 AM 12:00 AM 10:45 AM 12:00 AM 8:15 AM  
**Volume** 0 0 121 0 2 0 122

**PM Total** 1 0 389 0 4 0 394  
**Percentage** 0.25% 0.00% 98.73% 0.00% 1.02% 0.00%

**PM Peak** 2:45 PM 12:00 PM 4:00 PM 12:00 PM 2:30 PM 12:00 PM 4:00 PM  
**Volume** 1 0 67 0 3 0 67

**Day Total** 1 0 686 0 10 0 697  
**Percentage** 0.14% 0.00% 98.42% 0.00% 1.43% 0.00%

Davis Street  
 east of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 228414 ATR 2

Count Date: Thursday, February 10, 2022  
 Direction: EB

| AM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:15 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:30 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:45 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 2:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:15 AM  | 0        | 0          | 0                  | 0     | 1                 | 0                | 1     |
| 4:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:45 AM  | 0        | 0          | 0                  | 0     | 2                 | 0                | 2     |
| 5:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 5:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:45 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 6:00 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 6:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 6:30 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 6:45 AM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 7:00 AM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 7:15 AM  | 0        | 0          | 10                 | 0     | 1                 | 0                | 11    |
| 7:30 AM  | 0        | 0          | 37                 | 0     | 0                 | 0                | 37    |
| 7:45 AM  | 0        | 0          | 52                 | 0     | 0                 | 0                | 52    |
| 8:00 AM  | 0        | 0          | 36                 | 0     | 1                 | 0                | 37    |
| 8:15 AM  | 0        | 0          | 35                 | 0     | 0                 | 0                | 35    |
| 8:30 AM  | 0        | 0          | 51                 | 0     | 0                 | 0                | 51    |
| 8:45 AM  | 0        | 0          | 51                 | 0     | 1                 | 0                | 52    |
| 9:00 AM  | 0        | 0          | 34                 | 0     | 0                 | 0                | 34    |
| 9:15 AM  | 0        | 0          | 12                 | 0     | 1                 | 0                | 13    |
| 9:30 AM  | 0        | 0          | 17                 | 0     | 2                 | 0                | 19    |
| 9:45 AM  | 0        | 0          | 22                 | 0     | 0                 | 0                | 22    |
| 10:00 AM | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 10:15 AM | 0        | 0          | 12                 | 0     | 1                 | 0                | 13    |
| 10:30 AM | 0        | 0          | 12                 | 0     | 0                 | 0                | 12    |
| 10:45 AM | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 11:00 AM | 0        | 0          | 13                 | 0     | 1                 | 0                | 14    |
| 11:15 AM | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 11:30 AM | 0        | 0          | 16                 | 0     | 1                 | 0                | 17    |
| 11:45 AM | 0        | 0          | 23                 | 0     | 0                 | 0                | 23    |

| PM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 PM | 0        | 0          | 22                 | 0     | 0                 | 0                | 22    |
| 12:15 PM | 0        | 0          | 13                 | 0     | 2                 | 0                | 15    |
| 12:30 PM | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 12:45 PM | 0        | 0          | 12                 | 0     | 0                 | 0                | 12    |
| 1:00 PM  | 0        | 0          | 24                 | 0     | 1                 | 0                | 25    |
| 1:15 PM  | 0        | 0          | 19                 | 0     | 0                 | 0                | 19    |
| 1:30 PM  | 0        | 0          | 17                 | 0     | 0                 | 0                | 17    |
| 1:45 PM  | 0        | 0          | 15                 | 0     | 1                 | 0                | 16    |
| 2:00 PM  | 0        | 0          | 16                 | 0     | 1                 | 1                | 18    |
| 2:15 PM  | 0        | 0          | 19                 | 0     | 0                 | 0                | 19    |
| 2:30 PM  | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 2:45 PM  | 0        | 0          | 20                 | 0     | 0                 | 0                | 20    |
| 3:00 PM  | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 3:15 PM  | 0        | 0          | 24                 | 0     | 0                 | 0                | 24    |
| 3:30 PM  | 0        | 0          | 29                 | 0     | 0                 | 0                | 29    |
| 3:45 PM  | 0        | 0          | 24                 | 0     | 2                 | 0                | 26    |
| 4:00 PM  | 0        | 0          | 18                 | 0     | 2                 | 0                | 20    |
| 4:15 PM  | 1        | 0          | 25                 | 0     | 0                 | 0                | 26    |
| 4:30 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 4:45 PM  | 0        | 0          | 23                 | 0     | 0                 | 0                | 23    |
| 5:00 PM  | 0        | 0          | 14                 | 0     | 1                 | 0                | 15    |
| 5:15 PM  | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 5:30 PM  | 0        | 0          | 21                 | 0     | 0                 | 0                | 21    |
| 5:45 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 6:00 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 6:15 PM  | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 6:30 PM  | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 6:45 PM  | 0        | 0          | 20                 | 0     | 0                 | 0                | 20    |
| 7:00 PM  | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 7:15 PM  | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 7:30 PM  | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 7:45 PM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 8:00 PM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 8:15 PM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 8:30 PM  | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 8:45 PM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 9:00 PM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 9:15 PM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 9:30 PM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 9:45 PM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 10:00 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 10:15 PM | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 10:30 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 10:45 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:00 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:15 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:30 PM | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 11:45 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |

AM Total 0 0 484 0 12 0 496  
 Percentage 0.00% 0.00% 97.58% 0.00% 2.42% 0.00%

AM Peak 12:00 AM 12:00 AM 7:45 AM 12:00 AM 8:45 AM 12:00 AM 7:45 AM  
 Volume 0 0 174 0 4 0 175

PM Total 1 0 548 0 10 1 560  
 Percentage 0.18% 0.00% 97.86% 0.00% 1.79% 0.18%

PM Peak 3:30 PM 12:00 PM 3:30 PM 12:00 PM 3:15 PM 1:15 PM 3:30 PM  
 Volume 1 0 96 0 4 1 101

Day Total 1 0 1032 0 22 1 1056  
 Percentage 0.09% 0.00% 97.73% 0.00% 2.08% 0.09%



Davis Street  
 east of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 228414 ATR 2

Count Date: **Wednesday, February 9, 2022**  
 Direction: **WB**

| AM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 AM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 12:15 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:30 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:45 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:00 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 3:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:30 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 5:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 6:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 6:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 6:30 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 6:45 AM  | 0        | 0          | 0                  | 0     | 1                 | 0                | 1     |
| 7:00 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 7:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 7:30 AM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 7:45 AM  | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 8:00 AM  | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 8:15 AM  | 0        | 0          | 12                 | 0     | 0                 | 0                | 12    |
| 8:30 AM  | 0        | 0          | 9                  | 0     | 0                 | 0                | 9     |
| 8:45 AM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 9:00 AM  | 0        | 0          | 17                 | 0     | 1                 | 0                | 18    |
| 9:15 AM  | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 9:30 AM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 9:45 AM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 10:00 AM | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 10:15 AM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 10:30 AM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 10:45 AM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 11:00 AM | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 11:15 AM | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 11:30 AM | 0        | 0          | 5                  | 0     | 1                 | 0                | 6     |
| 11:45 AM | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |

| PM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 PM | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 12:15 PM | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 12:30 PM | 1        | 0          | 5                  | 0     | 0                 | 0                | 6     |
| 12:45 PM | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 1:00 PM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 1:15 PM  | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 1:30 PM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 1:45 PM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 2:00 PM  | 0        | 0          | 12                 | 0     | 0                 | 0                | 12    |
| 2:15 PM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 2:30 PM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 2:45 PM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 3:00 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 3:15 PM  | 0        | 0          | 9                  | 0     | 0                 | 0                | 9     |
| 3:30 PM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 3:45 PM  | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |
| 4:00 PM  | 0        | 0          | 23                 | 0     | 0                 | 0                | 23    |
| 4:15 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 4:30 PM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 4:45 PM  | 0        | 0          | 16                 | 0     | 0                 | 0                | 16    |
| 5:00 PM  | 0        | 0          | 20                 | 0     | 0                 | 0                | 20    |
| 5:15 PM  | 0        | 0          | 18                 | 0     | 0                 | 0                | 18    |
| 5:30 PM  | 0        | 0          | 11                 | 0     | 0                 | 0                | 11    |
| 5:45 PM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 6:00 PM  | 0        | 0          | 13                 | 0     | 0                 | 0                | 13    |
| 6:15 PM  | 0        | 0          | 18                 | 0     | 0                 | 0                | 18    |
| 6:30 PM  | 0        | 0          | 10                 | 0     | 0                 | 0                | 10    |
| 6:45 PM  | 0        | 0          | 9                  | 0     | 0                 | 0                | 9     |
| 7:00 PM  | 1        | 0          | 3                  | 0     | 0                 | 0                | 4     |
| 7:15 PM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 7:30 PM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 7:45 PM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 8:00 PM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 8:15 PM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 8:30 PM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 8:45 PM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 9:00 PM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 9:15 PM  | 0        | 0          | 9                  | 0     | 0                 | 0                | 9     |
| 9:30 PM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 9:45 PM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 10:00 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 10:15 PM | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 10:30 PM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 10:45 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:00 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:15 PM | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 11:30 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:45 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |

**AM Total**      0      0      132      0      3      0      135  
**Percentage**   0.00%   0.00%   97.78%   0.00%   2.22%   0.00%

**AM Peak**   12:00 AM   12:00 AM   8:15 AM   12:00 AM   6:00 AM   12:00 AM   8:15 AM  
**Volume**      0      0      48      0      1      0      49

**PM Total**      2      0      353      0      0      0      355  
**Percentage**   0.56%   0.00%   99.44%   0.00%   0.00%   0.00%

**PM Peak**   12:00 PM   12:00 PM   4:45 PM   12:00 PM   12:00 PM   12:00 PM   4:45 PM  
**Volume**      1      0      65      0      0      0      65

**Day Total**      2      0      485      0      3      0      490  
**Percentage**   0.41%   0.00%   98.98%   0.00%   0.61%   0.00%

Davis Street  
 east of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 228414 ATR 2

Count Date: Thursday, February 10, 2022  
 Direction: WB

| AM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:15 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 12:30 AM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 12:45 AM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 1:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:15 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 2:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 2:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 3:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:00 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 4:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:00 AM  | 0        | 0          | 1                  | 0     | 1                 | 0                | 2     |
| 5:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:30 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 5:45 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 6:00 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 6:15 AM  | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 6:30 AM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 6:45 AM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 7:00 AM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 7:15 AM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 7:30 AM  | 0        | 0          | 28                 | 1     | 0                 | 0                | 29    |
| 7:45 AM  | 0        | 0          | 36                 | 1     | 1                 | 0                | 38    |
| 8:00 AM  | 0        | 0          | 35                 | 0     | 3                 | 1                | 39    |
| 8:15 AM  | 0        | 0          | 38                 | 0     | 0                 | 0                | 38    |
| 8:30 AM  | 0        | 0          | 42                 | 0     | 1                 | 0                | 43    |
| 8:45 AM  | 0        | 0          | 58                 | 0     | 1                 | 0                | 59    |
| 9:00 AM  | 0        | 0          | 25                 | 0     | 0                 | 0                | 25    |
| 9:15 AM  | 0        | 0          | 26                 | 0     | 2                 | 0                | 28    |
| 9:30 AM  | 0        | 0          | 16                 | 0     | 1                 | 0                | 17    |
| 9:45 AM  | 0        | 0          | 14                 | 1     | 1                 | 0                | 16    |
| 10:00 AM | 0        | 0          | 21                 | 0     | 2                 | 0                | 23    |
| 10:15 AM | 0        | 0          | 17                 | 0     | 0                 | 0                | 17    |
| 10:30 AM | 0        | 0          | 27                 | 0     | 0                 | 0                | 27    |
| 10:45 AM | 0        | 0          | 21                 | 0     | 0                 | 0                | 21    |
| 11:00 AM | 0        | 0          | 22                 | 0     | 0                 | 0                | 22    |
| 11:15 AM | 0        | 0          | 20                 | 0     | 0                 | 0                | 20    |
| 11:30 AM | 0        | 0          | 30                 | 0     | 1                 | 0                | 31    |
| 11:45 AM | 0        | 0          | 17                 | 0     | 0                 | 0                | 17    |

| PM       | Bicycles | Motorcycle | Cars & Light Goods | Buses | Single Unit Heavy | Multi Unit Heavy | Total |
|----------|----------|------------|--------------------|-------|-------------------|------------------|-------|
| 12:00 PM | 0        | 0          | 36                 | 0     | 0                 | 0                | 36    |
| 12:15 PM | 0        | 0          | 34                 | 0     | 0                 | 0                | 34    |
| 12:30 PM | 0        | 0          | 23                 | 0     | 1                 | 0                | 24    |
| 12:45 PM | 0        | 0          | 23                 | 0     | 2                 | 0                | 25    |
| 1:00 PM  | 0        | 0          | 22                 | 0     | 0                 | 0                | 22    |
| 1:15 PM  | 0        | 0          | 32                 | 0     | 0                 | 0                | 32    |
| 1:30 PM  | 0        | 0          | 25                 | 0     | 1                 | 0                | 26    |
| 1:45 PM  | 0        | 0          | 27                 | 0     | 1                 | 0                | 28    |
| 2:00 PM  | 0        | 0          | 20                 | 0     | 2                 | 0                | 22    |
| 2:15 PM  | 0        | 0          | 35                 | 0     | 0                 | 0                | 35    |
| 2:30 PM  | 0        | 0          | 35                 | 1     | 0                 | 0                | 36    |
| 2:45 PM  | 0        | 0          | 39                 | 0     | 0                 | 0                | 39    |
| 3:00 PM  | 0        | 0          | 27                 | 0     | 1                 | 0                | 28    |
| 3:15 PM  | 0        | 0          | 44                 | 0     | 0                 | 0                | 44    |
| 3:30 PM  | 0        | 0          | 36                 | 0     | 1                 | 0                | 37    |
| 3:45 PM  | 0        | 0          | 57                 | 0     | 1                 | 0                | 58    |
| 4:00 PM  | 0        | 0          | 34                 | 0     | 1                 | 0                | 35    |
| 4:15 PM  | 0        | 0          | 48                 | 0     | 0                 | 0                | 48    |
| 4:30 PM  | 0        | 0          | 37                 | 0     | 0                 | 0                | 37    |
| 4:45 PM  | 0        | 0          | 40                 | 0     | 2                 | 0                | 42    |
| 5:00 PM  | 0        | 0          | 39                 | 0     | 1                 | 0                | 40    |
| 5:15 PM  | 0        | 0          | 55                 | 0     | 0                 | 0                | 55    |
| 5:30 PM  | 0        | 0          | 45                 | 0     | 2                 | 0                | 47    |
| 5:45 PM  | 0        | 0          | 37                 | 0     | 1                 | 0                | 38    |
| 6:00 PM  | 0        | 0          | 37                 | 0     | 0                 | 0                | 37    |
| 6:15 PM  | 0        | 0          | 39                 | 0     | 0                 | 0                | 39    |
| 6:30 PM  | 0        | 0          | 19                 | 0     | 0                 | 0                | 19    |
| 6:45 PM  | 0        | 0          | 15                 | 0     | 0                 | 0                | 15    |
| 7:00 PM  | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 7:15 PM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 7:30 PM  | 0        | 0          | 7                  | 0     | 0                 | 0                | 7     |
| 7:45 PM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 8:00 PM  | 0        | 0          | 4                  | 0     | 0                 | 0                | 4     |
| 8:15 PM  | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 8:30 PM  | 0        | 0          | 5                  | 0     | 0                 | 0                | 5     |
| 8:45 PM  | 0        | 0          | 3                  | 0     | 0                 | 0                | 3     |
| 9:00 PM  | 0        | 0          | 8                  | 0     | 0                 | 0                | 8     |
| 9:15 PM  | 0        | 0          | 6                  | 0     | 0                 | 0                | 6     |
| 9:30 PM  | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 9:45 PM  | 0        | 0          | 2                  | 0     | 0                 | 0                | 2     |
| 10:00 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 10:15 PM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 10:30 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 10:45 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:00 PM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |
| 11:15 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:30 PM | 0        | 0          | 0                  | 0     | 0                 | 0                | 0     |
| 11:45 PM | 0        | 0          | 1                  | 0     | 0                 | 0                | 1     |

AM Total 0 0 510 3 14 1 528  
 Percentage 0.00% 0.00% 96.59% 0.57% 2.65% 0.19%

AM Peak 12:00 AM 12:00 AM 8:00 AM 7:00 AM 9:15 AM 7:15 AM 8:00 AM  
 Volume 0 0 173 2 6 1 179

PM Total 0 0 1024 1 17 0 1042  
 Percentage 0.00% 0.00% 98.27% 0.10% 1.63% 0.00%

PM Peak 12:00 PM 12:00 PM 4:45 PM 1:45 PM 4:45 PM 12:00 PM 4:45 PM  
 Volume 0 0 179 1 5 0 184

Day Total 0 0 1534 4 31 1 1570  
 Percentage 0.00% 0.00% 97.71% 0.25% 1.97% 0.06%

Davis Street  
east of Santander Bank Driveway  
City, State: Newton, MA  
Client: VHB/M. Duranleau  
Site Code: TBD



157 Washington Street, Suite 2  
Hudson, MA 01749  
Office: 508-875-0100 Fax: 508-875-0118  
**Weekly Report**

PDI File # 228414 ATR 2

Direction: EB

| Day<br>Date      | Wednesday<br>02/09/22 |                | Thursday<br>02/10/22 |                |          |          |          |          |          |          |          |          |          |          | Week<br>Ave |            |                |                |
|------------------|-----------------------|----------------|----------------------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------------|------------|----------------|----------------|
|                  | AM                    | PM             | AM                   | PM             | AM       | PM       | AM       | PM       | AM       | PM       | AM       | PM       | AM       | PM       | AM          | PM         |                |                |
| 12:00            | 1                     | 11             | 0                    | 22             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 17         |                |                |
| 12:15            | 0                     | 11             | 0                    | 15             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 13         |                |                |
| 12:30            | 0                     | 13             | 0                    | 13             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 13         |                |                |
| 12:45            | 0                     | 13             | 0                    | 12             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 13         |                |                |
| 1:00             | 0                     | 14             | 0                    | 25             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 20         |                |                |
| 1:15             | 0                     | 14             | 0                    | 19             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 17         |                |                |
| 1:30             | 0                     | 7              | 0                    | 17             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 12         |                |                |
| 1:45             | 1                     | 16             | 0                    | 16             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 16         |                |                |
| 2:00             | 0                     | 9              | 0                    | 18             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 14         |                |                |
| 2:15             | 0                     | 7              | 1                    | 19             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 13         |                |                |
| 2:30             | 0                     | 11             | 0                    | 11             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 11         |                |                |
| 2:45             | 0                     | 10             | 0                    | 20             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 15         |                |                |
| 3:00             | 0                     | 6              | 0                    | 11             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 9          |                |                |
| 3:15             | 0                     | 10             | 0                    | 24             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 17         |                |                |
| 3:30             | 0                     | 12             | 0                    | 29             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 21         |                |                |
| 3:45             | 1                     | 16             | 0                    | 26             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 21         |                |                |
| 4:00             | 0                     | 16             | 0                    | 20             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 18         |                |                |
| 4:15             | 0                     | 15             | 1                    | 26             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 21         |                |                |
| 4:30             | 1                     | 17             | 0                    | 15             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 16         |                |                |
| 4:45             | 0                     | 19             | 2                    | 23             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 21         |                |                |
| 5:00             | 0                     | 10             | 0                    | 15             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 13         |                |                |
| 5:15             | 0                     | 10             | 1                    | 8              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 9          |                |                |
| 5:30             | 0                     | 15             | 0                    | 21             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0           | 18         |                |                |
| 5:45             | 1                     | 13             | 1                    | 15             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 14         |                |                |
| 6:00             | 1                     | 13             | 1                    | 15             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 14         |                |                |
| 6:15             | 1                     | 12             | 1                    | 8              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1           | 10         |                |                |
| 6:30             | 1                     | 5              | 2                    | 11             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2           | 8          |                |                |
| 6:45             | 2                     | 12             | 7                    | 20             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 5           | 16         |                |                |
| 7:00             | 3                     | 10             | 4                    | 13             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 4           | 12         |                |                |
| 7:15             | 8                     | 4              | 11                   | 8              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 10          | 6          |                |                |
| 7:30             | 17                    | 10             | 37                   | 8              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 27          | 9          |                |                |
| 7:45             | 18                    | 10             | 52                   | 4              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 35          | 7          |                |                |
| 8:00             | 17                    | 1              | 37                   | 4              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 27          | 3          |                |                |
| 8:15             | 21                    | 4              | 35                   | 3              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 28          | 4          |                |                |
| 8:30             | 34                    | 2              | 51                   | 6              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 43          | 4          |                |                |
| 8:45             | 44                    | 3              | 52                   | 4              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 48          | 4          |                |                |
| 9:00             | 23                    | 5              | 34                   | 2              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 29          | 4          |                |                |
| 9:15             | 5                     | 4              | 13                   | 2              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 9           | 3          |                |                |
| 9:30             | 7                     | 1              | 19                   | 7              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 13          | 4          |                |                |
| 9:45             | 10                    | 1              | 22                   | 1              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 16          | 1          |                |                |
| 10:00            | 14                    | 1              | 15                   | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 15          | 1          |                |                |
| 10:15            | 13                    | 0              | 13                   | 2              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 13          | 1          |                |                |
| 10:30            | 7                     | 0              | 12                   | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 10          | 0          |                |                |
| 10:45            | 11                    | 1              | 11                   | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 11          | 1          |                |                |
| 11:00            | 6                     | 0              | 14                   | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 10          | 0          |                |                |
| 11:15            | 6                     | 0              | 7                    | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 7           | 0          |                |                |
| 11:30            | 13                    | 0              | 17                   | 2              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 15          | 1          |                |                |
| 11:45            | 16                    | 0              | 23                   | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 20          | 0          |                |                |
| <b>Total</b>     | <b>303</b>            | <b>394</b>     | <b>496</b>           | <b>560</b>     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>400</b>  | <b>477</b> |                |                |
| <b>Day Total</b> | <b>697</b>            |                | <b>1056</b>          |                | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>877</b>  |            |                |                |
| <b>Peak HR</b>   | <b>8:15 AM</b>        | <b>4:00 PM</b> | <b>7:45 AM</b>       | <b>3:30 PM</b> |          |          |          |          |          |          |          |          |          |          |             |            | <b>8:15 AM</b> | <b>3:30 PM</b> |
| <b>Volume</b>    | <b>122</b>            | <b>67</b>      | <b>175</b>           | <b>101</b>     |          |          |          |          |          |          |          |          |          |          |             |            | <b>147</b>     | <b>80</b>      |

Davis Street  
 east of Santander Bank Driveway  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118  
**Weekly Report**

PDI File # 228414 ATR 2

Direction: WB

| Day<br>Date      | Wednesday<br>02/09/22 |                | Thursday<br>02/10/22 |                |          |          |          |          |          |          |          |          |          |          | Week<br>Ave    |                |
|------------------|-----------------------|----------------|----------------------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------------|----------------|
|                  | AM                    | PM             | AM                   | PM             | AM       | PM       | AM       | PM       | AM       | PM       | AM       | PM       | AM       | PM       | AM             | PM             |
| 12:00            | 1                     | 11             | 0                    | 36             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1              | 24             |
| 12:15            | 0                     | 8              | 0                    | 34             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 21             |
| 12:30            | 0                     | 6              | 1                    | 24             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1              | 15             |
| 12:45            | 0                     | 8              | 0                    | 25             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 17             |
| 1:00             | 0                     | 4              | 0                    | 22             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 13             |
| 1:15             | 0                     | 6              | 0                    | 32             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 19             |
| 1:30             | 0                     | 5              | 0                    | 26             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 16             |
| 1:45             | 0                     | 10             | 0                    | 28             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 19             |
| 2:00             | 0                     | 12             | 0                    | 22             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 17             |
| 2:15             | 0                     | 7              | 1                    | 35             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1              | 21             |
| 2:30             | 0                     | 10             | 0                    | 36             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 23             |
| 2:45             | 0                     | 5              | 0                    | 39             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 22             |
| 3:00             | 1                     | 15             | 0                    | 28             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1              | 22             |
| 3:15             | 0                     | 9              | 0                    | 44             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 27             |
| 3:30             | 0                     | 7              | 0                    | 37             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 22             |
| 3:45             | 0                     | 16             | 0                    | 58             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 37             |
| 4:00             | 0                     | 23             | 0                    | 35             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 29             |
| 4:15             | 0                     | 15             | 0                    | 48             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 32             |
| 4:30             | 0                     | 10             | 0                    | 37             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 24             |
| 4:45             | 0                     | 16             | 0                    | 42             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 29             |
| 5:00             | 0                     | 20             | 2                    | 40             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1              | 30             |
| 5:15             | 0                     | 18             | 0                    | 55             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 37             |
| 5:30             | 1                     | 11             | 0                    | 47             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1              | 29             |
| 5:45             | 0                     | 7              | 0                    | 38             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 23             |
| 6:00             | 0                     | 13             | 1                    | 37             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1              | 25             |
| 6:15             | 0                     | 18             | 0                    | 39             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0              | 29             |
| 6:30             | 2                     | 10             | 1                    | 19             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2              | 15             |
| 6:45             | 1                     | 9              | 3                    | 15             | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2              | 12             |
| 7:00             | 2                     | 4              | 2                    | 8              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2              | 6              |
| 7:15             | 1                     | 5              | 7                    | 7              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 4              | 6              |
| 7:30             | 5                     | 3              | 29                   | 7              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 17             | 5              |
| 7:45             | 8                     | 2              | 38                   | 4              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 23             | 3              |
| 8:00             | 6                     | 4              | 39                   | 4              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 23             | 4              |
| 8:15             | 12                    | 3              | 38                   | 6              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 25             | 5              |
| 8:30             | 9                     | 2              | 43                   | 5              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 26             | 4              |
| 8:45             | 10                    | 2              | 59                   | 3              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 35             | 3              |
| 9:00             | 18                    | 5              | 25                   | 8              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 22             | 7              |
| 9:15             | 6                     | 9              | 28                   | 6              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 17             | 8              |
| 9:30             | 4                     | 1              | 17                   | 1              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 11             | 1              |
| 9:45             | 4                     | 0              | 16                   | 2              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 10             | 1              |
| 10:00            | 5                     | 0              | 23                   | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 14             | 0              |
| 10:15            | 1                     | 3              | 17                   | 1              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 9              | 2              |
| 10:30            | 3                     | 1              | 27                   | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 15             | 1              |
| 10:45            | 3                     | 0              | 21                   | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 12             | 0              |
| 11:00            | 5                     | 0              | 22                   | 1              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 14             | 1              |
| 11:15            | 11                    | 2              | 20                   | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 16             | 1              |
| 11:30            | 6                     | 0              | 31                   | 0              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 19             | 0              |
| 11:45            | 10                    | 0              | 17                   | 1              | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 14             | 1              |
| <b>Total</b>     | <b>135</b>            | <b>355</b>     | <b>528</b>           | <b>1042</b>    | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>332</b>     | <b>699</b>     |
| <b>Day Total</b> | <b>490</b>            |                | <b>1570</b>          |                | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>0</b> |          | <b>1030</b>    |                |
| <b>Peak HR</b>   | <b>8:15 AM</b>        | <b>4:45 PM</b> | <b>8:00 AM</b>       | <b>4:45 PM</b> |          |          |          |          |          |          |          |          |          |          | <b>8:00 AM</b> | <b>4:45 PM</b> |
| <b>Volume</b>    | <b>49</b>             | <b>65</b>      | <b>179</b>           | <b>184</b>     |          |          |          |          |          |          |          |          |          |          | <b>108</b>     | <b>125</b>     |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street |      |      |        |       | Total |
|-------------------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------------------|------|------|--------|-------|-------|
|                   | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West         |      |      |        |       |       |
|                   | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right             | Thru | Left | U-Turn | Total |       |
| 7:00 AM           | 45         | 0    | 0    | 0      | 45    | 8                            | 72   | 0    | 0      | 80    | 98                           | 10   | 2    | 0      | 110   | 0                 | 0    | 0    | 0      | 0     | 235   |
| 7:15 AM           | 60         | 0    | 0    | 0      | 60    | 5                            | 103  | 0    | 0      | 108   | 129                          | 21   | 3    | 0      | 153   | 0                 | 0    | 0    | 0      | 0     | 321   |
| 7:30 AM           | 76         | 0    | 0    | 0      | 76    | 8                            | 113  | 0    | 0      | 121   | 163                          | 26   | 5    | 0      | 194   | 0                 | 0    | 0    | 0      | 0     | 391   |
| 7:45 AM           | 91         | 0    | 0    | 0      | 91    | 7                            | 137  | 0    | 0      | 144   | 146                          | 28   | 6    | 0      | 180   | 0                 | 0    | 0    | 0      | 0     | 415   |
| <b>Total</b>      | 272        | 0    | 0    | 0      | 272   | 28                           | 425  | 0    | 0      | 453   | 536                          | 85   | 16   | 0      | 637   | 0                 | 0    | 0    | 0      | 0     | 1362  |
| 8:00 AM           | 70         | 0    | 0    | 0      | 70    | 10                           | 112  | 0    | 0      | 122   | 147                          | 25   | 3    | 0      | 175   | 0                 | 0    | 0    | 0      | 0     | 367   |
| 8:15 AM           | 70         | 0    | 0    | 0      | 70    | 14                           | 100  | 0    | 0      | 114   | 138                          | 31   | 7    | 0      | 176   | 0                 | 0    | 0    | 0      | 0     | 360   |
| 8:30 AM           | 67         | 0    | 0    | 0      | 67    | 12                           | 92   | 0    | 0      | 104   | 136                          | 34   | 11   | 0      | 181   | 0                 | 0    | 0    | 0      | 0     | 352   |
| 8:45 AM           | 59         | 0    | 0    | 0      | 59    | 18                           | 103  | 0    | 0      | 121   | 152                          | 27   | 8    | 0      | 187   | 0                 | 0    | 0    | 0      | 0     | 367   |
| <b>Total</b>      | 266        | 0    | 0    | 0      | 266   | 54                           | 407  | 0    | 0      | 461   | 573                          | 117  | 29   | 0      | 719   | 0                 | 0    | 0    | 0      | 0     | 1446  |
| Grand Total       | 538        | 0    | 0    | 0      | 538   | 82                           | 832  | 0    | 0      | 914   | 1109                         | 202  | 45   | 0      | 1356  | 0                 | 0    | 0    | 0      | 0     | 2808  |
| Approach %        | 100.0      | 0.0  | 0.0  | 0.0    |       | 9.0                          | 91.0 | 0.0  | 0.0    |       | 81.8                         | 14.9 | 3.3  | 0.0    |       | 0.0               | 0.0  | 0.0  | 0.0    |       |       |
| Total %           | 19.2       | 0.0  | 0.0  | 0.0    | 19.2  | 2.9                          | 29.6 | 0.0  | 0.0    | 32.5  | 39.5                         | 7.2  | 1.6  | 0.0    | 48.3  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   |       |
| Exiting Leg Total | 284        |      |      |        |       | 1109                         |      |      |        |       | 0                            |      |      |        |       | 1415              |      |      |        |       | 2808  |
| Cars              | 511        | 0    | 0    | 0      | 511   | 77                           | 797  | 0    | 0      | 874   | 1073                         | 187  | 43   | 0      | 1303  | 0                 | 0    | 0    | 0      | 0     | 2688  |
| % Cars            | 95.0       | 0.0  | 0.0  | 0.0    | 95.0  | 93.9                         | 95.8 | 0.0  | 0.0    | 95.6  | 96.8                         | 92.6 | 95.6 | 0.0    | 96.1  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   | 95.7  |
| Exiting Leg Total | 264        |      |      |        |       | 1073                         |      |      |        |       | 0                            |      |      |        |       | 1351              |      |      |        |       | 2688  |
| Heavy Vehicles    | 27         | 0    | 0    | 0      | 27    | 5                            | 35   | 0    | 0      | 40    | 36                           | 15   | 2    | 0      | 53    | 0                 | 0    | 0    | 0      | 0     | 120   |
| % Heavy Vehicles  | 5.0        | 0.0  | 0.0  | 0.0    | 5.0   | 6.1                          | 4.2  | 0.0  | 0.0    | 4.4   | 3.2                          | 7.4  | 4.4  | 0.0    | 3.9   | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   | 4.3   |
| Exiting Leg Total | 20         |      |      |        |       | 36                           |      |      |        |       | 0                            |      |      |        |       | 64                |      |      |        |       | 120   |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                    | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street |       |       |        |       | Total |
|--------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------------------|-------|-------|--------|-------|-------|
|                    | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West         |       |       |        |       |       |
|                    | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right             | Thru  | Left  | U-Turn | Total |       |
| 7:30 AM            | 76         | 0     | 0     | 0      | 76    | 8                            | 113   | 0     | 0      | 121   | 163                          | 26    | 5     | 0      | 194   | 0                 | 0     | 0     | 0      | 0     | 391   |
| 7:45 AM            | 91         | 0     | 0     | 0      | 91    | 7                            | 137   | 0     | 0      | 144   | 146                          | 28    | 6     | 0      | 180   | 0                 | 0     | 0     | 0      | 0     | 415   |
| 8:00 AM            | 70         | 0     | 0     | 0      | 70    | 10                           | 112   | 0     | 0      | 122   | 147                          | 25    | 3     | 0      | 175   | 0                 | 0     | 0     | 0      | 0     | 367   |
| 8:15 AM            | 70         | 0     | 0     | 0      | 70    | 14                           | 100   | 0     | 0      | 114   | 138                          | 31    | 7     | 0      | 176   | 0                 | 0     | 0     | 0      | 0     | 360   |
| Total Volume       | 307        | 0     | 0     | 0      | 307   | 39                           | 462   | 0     | 0      | 501   | 594                          | 110   | 21    | 0      | 725   | 0                 | 0     | 0     | 0      | 0     | 1533  |
| % Approach Total   | 100.0      | 0.0   | 0.0   | 0.0    |       | 7.8                          | 92.2  | 0.0   | 0.0    |       | 81.9                         | 15.2  | 2.9   | 0.0    |       | 0.0               | 0.0   | 0.0   | 0.0    |       |       |
| PHF                | 0.843      | 0.000 | 0.000 | 0.000  | 0.843 | 0.696                        | 0.843 | 0.000 | 0.000  | 0.870 | 0.911                        | 0.887 | 0.750 | 0.000  | 0.934 | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.923 |
| Cars               | 295        | 0     | 0     | 0      | 295   | 37                           | 444   | 0     | 0      | 481   | 579                          | 101   | 19    | 0      | 699   | 0                 | 0     | 0     | 0      | 0     | 1475  |
| Cars %             | 96.1       | 0.0   | 0.0   | 0.0    | 96.1  | 94.9                         | 96.1  | 0.0   | 0.0    | 96.0  | 97.5                         | 91.8  | 90.5  | 0.0    | 96.4  | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   | 96.2  |
| Heavy Vehicles     | 12         | 0     | 0     | 0      | 12    | 2                            | 18    | 0     | 0      | 20    | 15                           | 9     | 2     | 0      | 26    | 0                 | 0     | 0     | 0      | 0     | 58    |
| Heavy Vehicles %   | 3.9        | 0.0   | 0.0   | 0.0    | 3.9   | 5.1                          | 3.9   | 0.0   | 0.0    | 4.0   | 2.5                          | 8.2   | 9.5   | 0.0    | 3.6   | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   | 3.8   |
| Cars Enter Leg     | 295        | 0     | 0     | 0      | 295   | 37                           | 444   | 0     | 0      | 481   | 579                          | 101   | 19    | 0      | 699   | 0                 | 0     | 0     | 0      | 0     | 1475  |
| Heavy Enter Leg    | 12         | 0     | 0     | 0      | 12    | 2                            | 18    | 0     | 0      | 20    | 15                           | 9     | 2     | 0      | 26    | 0                 | 0     | 0     | 0      | 0     | 58    |
| Total Entering Leg | 307        | 0     | 0     | 0      | 307   | 39                           | 462   | 0     | 0      | 501   | 594                          | 110   | 21    | 0      | 725   | 0                 | 0     | 0     | 0      | 0     | 1533  |
| Cars Exiting Leg   | 138        |       |       |        |       | 579                          |       |       |        |       | 0                            |       |       |        |       | 758               |       |       |        |       | 1475  |
| Heavy Exiting Leg  | 11         |       |       |        |       | 15                           |       |       |        |       | 0                            |       |       |        |       | 32                |       |       |        |       | 58    |
| Total Exiting Leg  | 149        |       |       |        |       | 594                          |       |       |        |       | 0                            |       |       |        |       | 790               |       |       |        |       | 1533  |



PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class: **Cars**



|                   | Elm Street |          |          |          |            | Washington Street (Route 16) |            |          |          |            | Washington Street (Route 16) |            |           |          |            | Washington Street |          |          |          |          | Total       |
|-------------------|------------|----------|----------|----------|------------|------------------------------|------------|----------|----------|------------|------------------------------|------------|-----------|----------|------------|-------------------|----------|----------|----------|----------|-------------|
|                   | from North |          |          |          |            | from East                    |            |          |          |            | from South                   |            |           |          |            | from West         |          |          |          |          |             |
|                   | Right      | Thru     | Left     | U-Turn   | Total      | Right                        | Thru       | Left     | U-Turn   | Total      | Right                        | Thru       | Left      | U-Turn   | Total      | Right             | Thru     | Left     | U-Turn   | Total    |             |
| 7:00 AM           | 40         | 0        | 0        | 0        | 40         | 7                            | 69         | 0        | 0        | 76         | 92                           | 9          | 2         | 0        | 103        | 0                 | 0        | 0        | 0        | 0        | 219         |
| 7:15 AM           | 58         | 0        | 0        | 0        | 58         | 5                            | 96         | 0        | 0        | 101        | 124                          | 19         | 3         | 0        | 146        | 0                 | 0        | 0        | 0        | 0        | 305         |
| 7:30 AM           | 73         | 0        | 0        | 0        | 73         | 7                            | 108        | 0        | 0        | 115        | 157                          | 26         | 5         | 0        | 188        | 0                 | 0        | 0        | 0        | 0        | 376         |
| 7:45 AM           | 87         | 0        | 0        | 0        | 87         | 7                            | 133        | 0        | 0        | 140        | 143                          | 27         | 5         | 0        | 175        | 0                 | 0        | 0        | 0        | 0        | 402         |
| <b>Total</b>      | <b>258</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>258</b> | <b>26</b>                    | <b>406</b> | <b>0</b> | <b>0</b> | <b>432</b> | <b>516</b>                   | <b>81</b>  | <b>15</b> | <b>0</b> | <b>612</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>1302</b> |
| 8:00 AM           | 69         | 0        | 0        | 0        | 69         | 9                            | 106        | 0        | 0        | 115        | 145                          | 22         | 2         | 0        | 169        | 0                 | 0        | 0        | 0        | 0        | 353         |
| 8:15 AM           | 66         | 0        | 0        | 0        | 66         | 14                           | 97         | 0        | 0        | 111        | 134                          | 26         | 7         | 0        | 167        | 0                 | 0        | 0        | 0        | 0        | 344         |
| 8:30 AM           | 61         | 0        | 0        | 0        | 61         | 11                           | 89         | 0        | 0        | 100        | 129                          | 34         | 11        | 0        | 174        | 0                 | 0        | 0        | 0        | 0        | 335         |
| 8:45 AM           | 57         | 0        | 0        | 0        | 57         | 17                           | 99         | 0        | 0        | 116        | 149                          | 24         | 8         | 0        | 181        | 0                 | 0        | 0        | 0        | 0        | 354         |
| <b>Total</b>      | <b>253</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>253</b> | <b>51</b>                    | <b>391</b> | <b>0</b> | <b>0</b> | <b>442</b> | <b>557</b>                   | <b>106</b> | <b>28</b> | <b>0</b> | <b>691</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>1386</b> |
| Grand Total       | 511        | 0        | 0        | 0        | 511        | 77                           | 797        | 0        | 0        | 874        | 1073                         | 187        | 43        | 0        | 1303       | 0                 | 0        | 0        | 0        | 0        | 2688        |
| Approach %        | 100.0      | 0.0      | 0.0      | 0.0      |            | 8.8                          | 91.2       | 0.0      | 0.0      |            | 82.3                         | 14.4       | 3.3       | 0.0      |            | 0.0               | 0.0      | 0.0      | 0.0      |          |             |
| Total %           | 19.0       | 0.0      | 0.0      | 0.0      | 19.0       | 2.9                          | 29.7       | 0.0      | 0.0      | 32.5       | 39.9                         | 7.0        | 1.6       | 0.0      | 48.5       | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      |             |
| Exiting Leg Total | 264        |          |          |          |            | 1073                         |            |          |          |            | 0                            |            |           |          |            | 1351              |          |          |          |          | 2688        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street |       |       |        |       | Total       |
|------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------------------|-------|-------|--------|-------|-------------|
|                  | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West         |       |       |        |       |             |
|                  | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right             | Thru  | Left  | U-Turn | Total |             |
| 7:30 AM          | 73         | 0     | 0     | 0      | 73    | 7                            | 108   | 0     | 0      | 115   | 157                          | 26    | 5     | 0      | 188   | 0                 | 0     | 0     | 0      | 0     | 376         |
| 7:45 AM          | 87         | 0     | 0     | 0      | 87    | 7                            | 133   | 0     | 0      | 140   | 143                          | 27    | 5     | 0      | 175   | 0                 | 0     | 0     | 0      | 0     | 402         |
| 8:00 AM          | 69         | 0     | 0     | 0      | 69    | 9                            | 106   | 0     | 0      | 115   | 145                          | 22    | 2     | 0      | 169   | 0                 | 0     | 0     | 0      | 0     | 353         |
| 8:15 AM          | 66         | 0     | 0     | 0      | 66    | 14                           | 97    | 0     | 0      | 111   | 134                          | 26    | 7     | 0      | 167   | 0                 | 0     | 0     | 0      | 0     | 344         |
| Total Volume     | 295        | 0     | 0     | 0      | 295   | 37                           | 444   | 0     | 0      | 481   | 579                          | 101   | 19    | 0      | 699   | 0                 | 0     | 0     | 0      | 0     | 1475        |
| % Approach Total | 100.0      | 0.0   | 0.0   | 0.0    |       | 7.7                          | 92.3  | 0.0   | 0.0    |       | 82.8                         | 14.4  | 2.7   | 0.0    |       | 0.0               | 0.0   | 0.0   | 0.0    |       |             |
| PHF              | 0.848      | 0.000 | 0.000 | 0.000  | 0.848 | 0.661                        | 0.835 | 0.000 | 0.000  | 0.859 | 0.922                        | 0.935 | 0.679 | 0.000  | 0.930 | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.917       |
| Entering Leg     | 295        | 0     | 0     | 0      | 295   | 37                           | 444   | 0     | 0      | 481   | 579                          | 101   | 19    | 0      | 699   | 0                 | 0     | 0     | 0      | 0     | 1475        |
| Exiting Leg      | 138        |       |       |        |       | 579                          |       |       |        |       | 0                            |       |       |        |       | 758               |       |       |        |       | 1475        |
| <b>Total</b>     | <b>433</b> |       |       |        |       | <b>1060</b>                  |       |       |        |       | <b>699</b>                   |       |       |        |       | <b>758</b>        |       |       |        |       | <b>2950</b> |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



|                    | Elm Street |          |          |          |           | Washington Street (Route 16) |           |          |          |           | Washington Street (Route 16) |           |          |          |           | Washington Street |          |          |          |          | Total     |
|--------------------|------------|----------|----------|----------|-----------|------------------------------|-----------|----------|----------|-----------|------------------------------|-----------|----------|----------|-----------|-------------------|----------|----------|----------|----------|-----------|
|                    | from North |          |          |          |           | from East                    |           |          |          |           | from South                   |           |          |          |           | from West         |          |          |          |          |           |
|                    | Right      | Thru     | Left     | U-Turn   | Total     | Right                        | Thru      | Left     | U-Turn   | Total     | Right                        | Thru      | Left     | U-Turn   | Total     | Right             | Thru     | Left     | U-Turn   | Total    |           |
| 7:00 AM            | 5          | 0        | 0        | 0        | 5         | 1                            | 3         | 0        | 0        | 4         | 6                            | 1         | 0        | 0        | 7         | 0                 | 0        | 0        | 0        | 0        | 16        |
| 7:15 AM            | 2          | 0        | 0        | 0        | 2         | 0                            | 7         | 0        | 0        | 7         | 5                            | 2         | 0        | 0        | 7         | 0                 | 0        | 0        | 0        | 0        | 16        |
| 7:30 AM            | 3          | 0        | 0        | 0        | 3         | 1                            | 5         | 0        | 0        | 6         | 6                            | 0         | 0        | 0        | 6         | 0                 | 0        | 0        | 0        | 0        | 15        |
| 7:45 AM            | 4          | 0        | 0        | 0        | 4         | 0                            | 4         | 0        | 0        | 4         | 3                            | 1         | 1        | 0        | 5         | 0                 | 0        | 0        | 0        | 0        | 13        |
| <b>Total</b>       | <b>14</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>14</b> | <b>2</b>                     | <b>19</b> | <b>0</b> | <b>0</b> | <b>21</b> | <b>20</b>                    | <b>4</b>  | <b>1</b> | <b>0</b> | <b>25</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>60</b> |
| 8:00 AM            | 1          | 0        | 0        | 0        | 1         | 1                            | 6         | 0        | 0        | 7         | 2                            | 3         | 1        | 0        | 6         | 0                 | 0        | 0        | 0        | 0        | 14        |
| 8:15 AM            | 4          | 0        | 0        | 0        | 4         | 0                            | 3         | 0        | 0        | 3         | 4                            | 5         | 0        | 0        | 9         | 0                 | 0        | 0        | 0        | 0        | 16        |
| 8:30 AM            | 6          | 0        | 0        | 0        | 6         | 1                            | 3         | 0        | 0        | 4         | 7                            | 0         | 0        | 0        | 7         | 0                 | 0        | 0        | 0        | 0        | 17        |
| 8:45 AM            | 2          | 0        | 0        | 0        | 2         | 1                            | 4         | 0        | 0        | 5         | 3                            | 3         | 0        | 0        | 6         | 0                 | 0        | 0        | 0        | 0        | 13        |
| <b>Total</b>       | <b>13</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>13</b> | <b>3</b>                     | <b>16</b> | <b>0</b> | <b>0</b> | <b>19</b> | <b>16</b>                    | <b>11</b> | <b>1</b> | <b>0</b> | <b>28</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>60</b> |
| Grand Total        | 27         | 0        | 0        | 0        | 27        | 5                            | 35        | 0        | 0        | 40        | 36                           | 15        | 2        | 0        | 53        | 0                 | 0        | 0        | 0        | 0        | 120       |
| Approach %         | 100.0      | 0.0      | 0.0      | 0.0      |           | 12.5                         | 87.5      | 0.0      | 0.0      |           | 67.9                         | 28.3      | 3.8      | 0.0      |           | 0.0               | 0.0      | 0.0      | 0.0      |          |           |
| Total %            | 22.5       | 0.0      | 0.0      | 0.0      | 22.5      | 4.2                          | 29.2      | 0.0      | 0.0      | 33.3      | 30.0                         | 12.5      | 1.7      | 0.0      | 44.2      | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      |           |
| Exiting Leg Total  | 20         |          |          |          |           | 36                           |           |          |          |           | 0                            |           |          |          |           | 64                |          |          |          |          | 120       |
| Buses              | 9          | 0        | 0        | 0        | 9         | 4                            | 7         | 0        | 0        | 11        | 6                            | 5         | 0        | 0        | 11        | 0                 | 0        | 0        | 0        | 0        | 31        |
| % Buses            | 33.3       | 0.0      | 0.0      | 0.0      | 33.3      | 80.0                         | 20.0      | 0.0      | 0.0      | 27.5      | 16.7                         | 33.3      | 0.0      | 0.0      | 20.8      | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      | 25.8      |
| Exiting Leg Total  | 9          |          |          |          |           | 6                            |           |          |          |           | 0                            |           |          |          |           | 16                |          |          |          |          | 31        |
| Single-Unit Trucks | 18         | 0        | 0        | 0        | 18        | 1                            | 23        | 0        | 0        | 24        | 28                           | 9         | 2        | 0        | 39        | 0                 | 0        | 0        | 0        | 0        | 81        |
| % Single-Unit      | 66.7       | 0.0      | 0.0      | 0.0      | 66.7      | 20.0                         | 65.7      | 0.0      | 0.0      | 60.0      | 77.8                         | 60.0      | 100.0    | 0.0      | 73.6      | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      | 67.5      |
| Exiting Leg Total  | 10         |          |          |          |           | 28                           |           |          |          |           | 0                            |           |          |          |           | 43                |          |          |          |          | 81        |
| Articulated Trucks | 0          | 0        | 0        | 0        | 0         | 0                            | 5         | 0        | 0        | 5         | 2                            | 1         | 0        | 0        | 3         | 0                 | 0        | 0        | 0        | 0        | 8         |
| % Articulated      | 0.0        | 0.0      | 0.0      | 0.0      | 0.0       | 0.0                          | 14.3      | 0.0      | 0.0      | 12.5      | 5.6                          | 6.7       | 0.0      | 0.0      | 5.7       | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      | 6.7       |
| Exiting Leg Total  | 1          |          |          |          |           | 2                            |           |          |          |           | 0                            |           |          |          |           | 5                 |          |          |          |          | 8         |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                     | Elm Street |          |          |          |           | Washington Street (Route 16) |           |          |          |           | Washington Street (Route 16) |          |          |          |           | Washington Street |          |          |          |          | Total     |
|---------------------|------------|----------|----------|----------|-----------|------------------------------|-----------|----------|----------|-----------|------------------------------|----------|----------|----------|-----------|-------------------|----------|----------|----------|----------|-----------|
|                     | from North |          |          |          |           | from East                    |           |          |          |           | from South                   |          |          |          |           | from West         |          |          |          |          |           |
|                     | Right      | Thru     | Left     | U-Turn   | Total     | Right                        | Thru      | Left     | U-Turn   | Total     | Right                        | Thru     | Left     | U-Turn   | Total     | Right             | Thru     | Left     | U-Turn   | Total    |           |
| 7:00 AM             | 5          | 0        | 0        | 0        | 5         | 1                            | 3         | 0        | 0        | 4         | 6                            | 1        | 0        | 0        | 7         | 0                 | 0        | 0        | 0        | 0        | 16        |
| 7:15 AM             | 2          | 0        | 0        | 0        | 2         | 0                            | 7         | 0        | 0        | 7         | 5                            | 2        | 0        | 0        | 7         | 0                 | 0        | 0        | 0        | 0        | 16        |
| 7:30 AM             | 3          | 0        | 0        | 0        | 3         | 1                            | 5         | 0        | 0        | 6         | 6                            | 0        | 0        | 0        | 6         | 0                 | 0        | 0        | 0        | 0        | 15        |
| 7:45 AM             | 4          | 0        | 0        | 0        | 4         | 0                            | 4         | 0        | 0        | 4         | 3                            | 1        | 1        | 0        | 5         | 0                 | 0        | 0        | 0        | 0        | 13        |
| <b>Total Volume</b> | <b>14</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>14</b> | <b>2</b>                     | <b>19</b> | <b>0</b> | <b>0</b> | <b>21</b> | <b>20</b>                    | <b>4</b> | <b>1</b> | <b>0</b> | <b>25</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>60</b> |
| % Approach Total    | 100.0      | 0.0      | 0.0      | 0.0      |           | 9.5                          | 90.5      | 0.0      | 0.0      |           | 80.0                         | 16.0     | 4.0      | 0.0      |           | 0.0               | 0.0      | 0.0      | 0.0      |          |           |
| PHF                 | 0.700      | 0.000    | 0.000    | 0.000    | 0.700     | 0.500                        | 0.679     | 0.000    | 0.000    | 0.750     | 0.833                        | 0.500    | 0.250    | 0.000    | 0.893     | 0.000             | 0.000    | 0.000    | 0.000    | 0.000    | 0.938     |
| Buses               | 5          | 0        | 0        | 0        | 5         | 2                            | 4         | 0        | 0        | 6         | 3                            | 2        | 0        | 0        | 5         | 0                 | 0        | 0        | 0        | 0        | 16        |
| Buses %             | 35.7       | 0.0      | 0.0      | 0.0      | 35.7      | 100.0                        | 21.1      | 0.0      | 0.0      | 28.6      | 15.0                         | 50.0     | 0.0      | 0.0      | 20.0      | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      | 26.7      |
| Single-Unit Trucks  | 9          | 0        | 0        | 0        | 9         | 0                            | 11        | 0        | 0        | 11        | 17                           | 2        | 1        | 0        | 20        | 0                 | 0        | 0        | 0        | 0        | 40        |
| Single-Unit %       | 64.3       | 0.0      | 0.0      | 0.0      | 64.3      | 0.0                          | 57.9      | 0.0      | 0.0      | 52.4      | 85.0                         | 50.0     | 100.0    | 0.0      | 80.0      | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      | 66.7      |
| Articulated Trucks  | 0          | 0        | 0        | 0        | 0         | 0                            | 4         | 0        | 0        | 4         | 0                            | 0        | 0        | 0        | 0         | 0                 | 0        | 0        | 0        | 0        | 4         |
| Articulated %       | 0.0        | 0.0      | 0.0      | 0.0      | 0.0       | 0.0                          | 21.1      | 0.0      | 0.0      | 19.0      | 0.0                          | 0.0      | 0.0      | 0.0      | 0.0       | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      | 6.7       |
| Buses               | 5          | 0        | 0        | 0        | 5         | 2                            | 4         | 0        | 0        | 6         | 3                            | 2        | 0        | 0        | 5         | 0                 | 0        | 0        | 0        | 0        | 16        |
| Single-Unit Trucks  | 9          | 0        | 0        | 0        | 9         | 0                            | 11        | 0        | 0        | 11        | 17                           | 2        | 1        | 0        | 20        | 0                 | 0        | 0        | 0        | 0        | 40        |
| Articulated Trucks  | 0          | 0        | 0        | 0        | 0         | 0                            | 4         | 0        | 0        | 4         | 0                            | 0        | 0        | 0        | 0         | 0                 | 0        | 0        | 0        | 0        | 4         |
| Total Entering Leg  | 14         | 0        | 0        | 0        | 14        | 2                            | 19        | 0        | 0        | 21        | 20                           | 4        | 1        | 0        | 25        | 0                 | 0        | 0        | 0        | 0        | 60        |
| Buses               | 4          |          |          |          |           | 3                            |           |          |          |           | 0                            |          |          |          |           | 9                 |          |          |          |          | 16        |
| Single-Unit Trucks  | 2          |          |          |          |           | 17                           |           |          |          |           | 0                            |          |          |          |           | 21                |          |          |          |          | 40        |
| Articulated Trucks  | 0          |          |          |          |           | 0                            |           |          |          |           | 0                            |          |          |          |           | 4                 |          |          |          |          | 4         |
| Total Exiting Leg   | 6          |          |          |          |           | 20                           |           |          |          |           | 0                            |          |          |          |           | 34                |          |          |          |          | 60        |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Buses**

|                    | Elm Street |          |          |          |          | Washington Street (Route 16) |          |          |          |           | Washington Street (Route 16) |          |          |          |           | Washington Street |          |          |          |          | Total     |    |
|--------------------|------------|----------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|------------------------------|----------|----------|----------|-----------|-------------------|----------|----------|----------|----------|-----------|----|
|                    | from North |          |          |          |          | from East                    |          |          |          |           | from South                   |          |          |          |           | from West         |          |          |          |          |           |    |
|                    | Right      | Thru     | Left     | U-Turn   | Total    | Right                        | Thru     | Left     | U-Turn   | Total     | Right                        | Thru     | Left     | U-Turn   | Total     | Right             | Thru     | Left     | U-Turn   | Total    |           |    |
| 7:00 AM            | 1          | 0        | 0        | 0        | 1        | 1                            | 0        | 0        | 0        | 1         | 1                            | 0        | 0        | 0        | 1         | 0                 | 0        | 0        | 0        | 0        | 3         |    |
| 7:15 AM            | 2          | 0        | 0        | 0        | 2        | 0                            | 0        | 0        | 0        | 0         | 0                            | 2        | 0        | 0        | 2         | 0                 | 0        | 0        | 0        | 0        | 4         |    |
| 7:30 AM            | 1          | 0        | 0        | 0        | 1        | 1                            | 3        | 0        | 0        | 4         | 2                            | 0        | 0        | 0        | 2         | 0                 | 0        | 0        | 0        | 0        | 7         |    |
| 7:45 AM            | 1          | 0        | 0        | 0        | 1        | 0                            | 1        | 0        | 0        | 1         | 0                            | 0        | 0        | 0        | 0         | 0                 | 0        | 0        | 0        | 0        | 2         |    |
| <b>Total</b>       | <b>5</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>5</b> | <b>2</b>                     | <b>4</b> | <b>0</b> | <b>0</b> | <b>6</b>  | <b>3</b>                     | <b>2</b> | <b>0</b> | <b>0</b> | <b>5</b>  | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>16</b> |    |
| 8:00 AM            | 0          | 0        | 0        | 0        | 0        | 1                            | 2        | 0        | 0        | 3         | 0                            | 1        | 0        | 0        | 1         | 0                 | 0        | 0        | 0        | 0        | 4         |    |
| 8:15 AM            | 1          | 0        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0         | 1                            | 1        | 0        | 0        | 2         | 0                 | 0        | 0        | 0        | 0        | 3         |    |
| 8:30 AM            | 2          | 0        | 0        | 0        | 2        | 0                            | 1        | 0        | 0        | 1         | 2                            | 0        | 0        | 0        | 2         | 0                 | 0        | 0        | 0        | 0        | 5         |    |
| 8:45 AM            | 1          | 0        | 0        | 0        | 1        | 1                            | 0        | 0        | 0        | 1         | 0                            | 1        | 0        | 0        | 1         | 0                 | 0        | 0        | 0        | 0        | 3         |    |
| <b>Total</b>       | <b>4</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>2</b>                     | <b>3</b> | <b>0</b> | <b>0</b> | <b>5</b>  | <b>3</b>                     | <b>3</b> | <b>0</b> | <b>0</b> | <b>6</b>  | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>15</b> |    |
| <b>Grand Total</b> | <b>9</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>9</b> | <b>4</b>                     | <b>7</b> | <b>0</b> | <b>0</b> | <b>11</b> | <b>6</b>                     | <b>5</b> | <b>0</b> | <b>0</b> | <b>11</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>31</b> |    |
| Approach %         | 100.0      | 0.0      | 0.0      | 0.0      |          | 36.4                         | 63.6     | 0.0      | 0.0      |           | 54.5                         | 45.5     | 0.0      | 0.0      |           | 0.0               | 0.0      | 0.0      | 0.0      |          |           |    |
| Total %            | 29.0       | 0.0      | 0.0      | 0.0      | 29.0     | 12.9                         | 22.6     | 0.0      | 0.0      | 35.5      | 19.4                         | 16.1     | 0.0      | 0.0      | 35.5      | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      |           |    |
| Exiting Leg Total  |            |          |          |          |          | 9                            |          |          |          |           | 6                            |          |          |          |           | 0                 |          |          |          |          | 16        | 31 |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                     | Elm Street |          |          |          |          | Washington Street (Route 16) |          |          |          |          | Washington Street (Route 16) |          |          |          |          | Washington Street |          |          |          |          | Total     |    |
|---------------------|------------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|-----------|----|
|                     | from North |          |          |          |          | from East                    |          |          |          |          | from South                   |          |          |          |          | from West         |          |          |          |          |           |    |
|                     | Right      | Thru     | Left     | U-Turn   | Total    | Right                        | Thru     | Left     | U-Turn   | Total    | Right                        | Thru     | Left     | U-Turn   | Total    | Right             | Thru     | Left     | U-Turn   | Total    |           |    |
| 7:15 AM             | 2          | 0        | 0        | 0        | 2        | 0                            | 0        | 0        | 0        | 0        | 0                            | 2        | 0        | 0        | 2        | 0                 | 0        | 0        | 0        | 0        | 4         |    |
| 7:30 AM             | 1          | 0        | 0        | 0        | 1        | 1                            | 3        | 0        | 0        | 4        | 2                            | 0        | 0        | 0        | 2        | 0                 | 0        | 0        | 0        | 0        | 7         |    |
| 7:45 AM             | 1          | 0        | 0        | 0        | 1        | 0                            | 1        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 2         |    |
| 8:00 AM             | 0          | 0        | 0        | 0        | 0        | 1                            | 2        | 0        | 0        | 3        | 0                            | 1        | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 4         |    |
| <b>Total Volume</b> | <b>4</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>2</b>                     | <b>6</b> | <b>0</b> | <b>0</b> | <b>8</b> | <b>2</b>                     | <b>3</b> | <b>0</b> | <b>0</b> | <b>5</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>17</b> |    |
| % Approach Total    | 100.0      | 0.0      | 0.0      | 0.0      |          | 25.0                         | 75.0     | 0.0      | 0.0      |          | 40.0                         | 60.0     | 0.0      | 0.0      |          | 0.0               | 0.0      | 0.0      | 0.0      |          |           |    |
| PHF                 | 0.500      | 0.000    | 0.000    | 0.000    | 0.500    | 0.500                        | 0.500    | 0.000    | 0.000    | 0.500    | 0.250                        | 0.375    | 0.000    | 0.000    | 0.625    | 0.000             | 0.000    | 0.000    | 0.000    | 0.000    | 0.607     |    |
| Entering Leg        | 4          | 0        | 0        | 0        | 4        | 2                            | 6        | 0        | 0        | 8        | 2                            | 3        | 0        | 0        | 5        | 0                 | 0        | 0        | 0        | 0        | 17        |    |
| Exiting Leg         |            |          |          |          |          | 5                            |          |          |          |          | 2                            |          |          |          |          | 0                 |          |          |          |          | 10        | 17 |
| <b>Total</b>        |            |          |          |          |          | 9                            |          |          |          |          | 10                           |          |          |          |          | 5                 |          |          |          |          | 10        | 34 |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Single-Unit Trucks**

|                   | Elm Street |          |          |          |          | Washington Street (Route 16) |           |          |          |           | Washington Street (Route 16) |          |          |          |           | Washington Street |          |          |          |          | Total     |
|-------------------|------------|----------|----------|----------|----------|------------------------------|-----------|----------|----------|-----------|------------------------------|----------|----------|----------|-----------|-------------------|----------|----------|----------|----------|-----------|
|                   | from North |          |          |          |          | from East                    |           |          |          |           | from South                   |          |          |          |           | from West         |          |          |          |          |           |
|                   | Right      | Thru     | Left     | U-Turn   | Total    | Right                        | Thru      | Left     | U-Turn   | Total     | Right                        | Thru     | Left     | U-Turn   | Total     | Right             | Thru     | Left     | U-Turn   | Total    |           |
| 7:00 AM           | 4          | 0        | 0        | 0        | 4        | 0                            | 2         | 0        | 0        | 2         | 5                            | 1        | 0        | 0        | 6         | 0                 | 0        | 0        | 0        | 0        | 12        |
| 7:15 AM           | 0          | 0        | 0        | 0        | 0        | 0                            | 5         | 0        | 0        | 5         | 5                            | 0        | 0        | 0        | 5         | 0                 | 0        | 0        | 0        | 0        | 10        |
| 7:30 AM           | 2          | 0        | 0        | 0        | 2        | 0                            | 2         | 0        | 0        | 2         | 4                            | 0        | 0        | 0        | 4         | 0                 | 0        | 0        | 0        | 0        | 8         |
| 7:45 AM           | 3          | 0        | 0        | 0        | 3        | 0                            | 2         | 0        | 0        | 2         | 3                            | 1        | 1        | 0        | 5         | 0                 | 0        | 0        | 0        | 0        | 10        |
| <b>Total</b>      | <b>9</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>9</b> | <b>0</b>                     | <b>11</b> | <b>0</b> | <b>0</b> | <b>11</b> | <b>17</b>                    | <b>2</b> | <b>1</b> | <b>0</b> | <b>20</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>40</b> |
| 8:00 AM           | 1          | 0        | 0        | 0        | 1        | 0                            | 4         | 0        | 0        | 4         | 2                            | 2        | 1        | 0        | 5         | 0                 | 0        | 0        | 0        | 0        | 10        |
| 8:15 AM           | 3          | 0        | 0        | 0        | 3        | 0                            | 2         | 0        | 0        | 2         | 3                            | 4        | 0        | 0        | 7         | 0                 | 0        | 0        | 0        | 0        | 12        |
| 8:30 AM           | 4          | 0        | 0        | 0        | 4        | 1                            | 2         | 0        | 0        | 3         | 4                            | 0        | 0        | 0        | 4         | 0                 | 0        | 0        | 0        | 0        | 11        |
| 8:45 AM           | 1          | 0        | 0        | 0        | 1        | 0                            | 4         | 0        | 0        | 4         | 2                            | 1        | 0        | 0        | 3         | 0                 | 0        | 0        | 0        | 0        | 8         |
| <b>Total</b>      | <b>9</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>9</b> | <b>1</b>                     | <b>12</b> | <b>0</b> | <b>0</b> | <b>13</b> | <b>11</b>                    | <b>7</b> | <b>1</b> | <b>0</b> | <b>19</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>41</b> |
| Grand Total       | 18         | 0        | 0        | 0        | 18       | 1                            | 23        | 0        | 0        | 24        | 28                           | 9        | 2        | 0        | 39        | 0                 | 0        | 0        | 0        | 0        | 81        |
| Approach %        | 100.0      | 0.0      | 0.0      | 0.0      |          | 4.2                          | 95.8      | 0.0      | 0.0      |           | 71.8                         | 23.1     | 5.1      | 0.0      |           | 0.0               | 0.0      | 0.0      | 0.0      |          |           |
| Total %           | 22.2       | 0.0      | 0.0      | 0.0      | 22.2     | 1.2                          | 28.4      | 0.0      | 0.0      | 29.6      | 34.6                         | 11.1     | 2.5      | 0.0      | 48.1      | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      |           |
| Exiting Leg Total | 10         |          |          |          |          | 28                           |           |          |          |           | 0                            |          |          |          |           | 43                |          |          |          |          | 81        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street |       |       |        |       | Total |
|------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------------------|-------|-------|--------|-------|-------|
|                  | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West         |       |       |        |       |       |
|                  | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right             | Thru  | Left  | U-Turn | Total |       |
| 7:45 AM          | 3          | 0     | 0     | 0      | 3     | 0                            | 2     | 0     | 0      | 2     | 3                            | 1     | 1     | 0      | 5     | 0                 | 0     | 0     | 0      | 0     | 10    |
| 7:45 AM          | 3          | 0     | 0     | 0      | 3     | 0                            | 2     | 0     | 0      | 2     | 3                            | 4     | 0     | 0      | 7     | 0                 | 0     | 0     | 0      | 0     | 12    |
| 8:00 AM          | 1          | 0     | 0     | 0      | 1     | 0                            | 4     | 0     | 0      | 4     | 2                            | 2     | 1     | 0      | 5     | 0                 | 0     | 0     | 0      | 0     | 10    |
| 8:15 AM          | 3          | 0     | 0     | 0      | 3     | 0                            | 2     | 0     | 0      | 2     | 3                            | 4     | 0     | 0      | 7     | 0                 | 0     | 0     | 0      | 0     | 12    |
| 8:30 AM          | 4          | 0     | 0     | 0      | 4     | 1                            | 2     | 0     | 0      | 3     | 4                            | 0     | 0     | 0      | 4     | 0                 | 0     | 0     | 0      | 0     | 11    |
| Total Volume     | 11         | 0     | 0     | 0      | 11    | 1                            | 10    | 0     | 0      | 11    | 12                           | 7     | 2     | 0      | 21    | 0                 | 0     | 0     | 0      | 0     | 43    |
| % Approach Total | 100.0      | 0.0   | 0.0   | 0.0    |       | 9.1                          | 90.9  | 0.0   | 0.0    |       | 57.1                         | 33.3  | 9.5   | 0.0    |       | 0.0               | 0.0   | 0.0   | 0.0    |       |       |
| PHF              | 0.688      | 0.000 | 0.000 | 0.000  | 0.688 | 0.250                        | 0.625 | 0.000 | 0.000  | 0.688 | 0.750                        | 0.438 | 0.500 | 0.000  | 0.750 | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.896 |
| Entering Leg     | 11         | 0     | 0     | 0      | 11    | 1                            | 10    | 0     | 0      | 11    | 12                           | 7     | 2     | 0      | 21    | 0                 | 0     | 0     | 0      | 0     | 43    |
| Exiting Leg      | 8          |       |       |        |       | 12                           |       |       |        |       | 0                            |       |       |        |       | 23                |       |       |        |       | 43    |
| Total            | 19         |       |       |        |       | 23                           |       |       |        |       | 21                           |       |       |        |       | 23                |       |       |        |       | 86    |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Articulated Trucks**

|                    | Elm Street |      |      |        |       | Washington Street (Route 16) |       |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street |      |      |        |       | Total |
|--------------------|------------|------|------|--------|-------|------------------------------|-------|------|--------|-------|------------------------------|------|------|--------|-------|-------------------|------|------|--------|-------|-------|
|                    | from North |      |      |        |       | from East                    |       |      |        |       | from South                   |      |      |        |       | from West         |      |      |        |       |       |
|                    | Right      | Thru | Left | U-Turn | Total | Right                        | Thru  | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right             | Thru | Left | U-Turn | Total |       |
| 7:00 AM            | 0          | 0    | 0    | 0      | 0     | 0                            | 1     | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 1     |
| 7:15 AM            | 0          | 0    | 0    | 0      | 0     | 0                            | 2     | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 2     |
| 7:30 AM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0     | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |
| 7:45 AM            | 0          | 0    | 0    | 0      | 0     | 0                            | 1     | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 1     |
| <b>Total</b>       | 0          | 0    | 0    | 0      | 0     | 0                            | 4     | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 4     |
| 8:00 AM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0     | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |
| 8:15 AM            | 0          | 0    | 0    | 0      | 0     | 0                            | 1     | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 1     |
| 8:30 AM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0     | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                 | 0    | 0    | 0      | 0     | 1     |
| 8:45 AM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0     | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 0                 | 0    | 0    | 0      | 0     | 2     |
| <b>Total</b>       | 0          | 0    | 0    | 0      | 0     | 0                            | 1     | 0    | 0      | 1     | 2                            | 1    | 0    | 0      | 3     | 0                 | 0    | 0    | 0      | 0     | 4     |
| <b>Grand Total</b> | 0          | 0    | 0    | 0      | 0     | 0                            | 5     | 0    | 0      | 5     | 2                            | 1    | 0    | 0      | 3     | 0                 | 0    | 0    | 0      | 0     | 8     |
| Approach %         | 0.0        | 0.0  | 0.0  | 0.0    |       | 0.0                          | 100.0 | 0.0  | 0.0    |       | 66.7                         | 33.3 | 0.0  | 0.0    |       | 0.0               | 0.0  | 0.0  | 0.0    |       |       |
| Total %            | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 0.0                          | 62.5  | 0.0  | 0.0    | 62.5  | 25.0                         | 12.5 | 0.0  | 0.0    | 37.5  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   |       |
| Exiting Leg Total  |            |      |      |        |       | 1                            |       |      |        |       |                              | 2    |      |        |       |                   |      | 0    | 5      | 8     |       |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                         | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street |       |       |        |       | Total |
|-------------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------------------|-------|-------|--------|-------|-------|
|                         | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West         |       |       |        |       |       |
|                         | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right             | Thru  | Left  | U-Turn | Total |       |
| 7:00 AM                 | 0          | 0     | 0     | 0      | 0     | 0                            | 1     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1     |
| 7:15 AM                 | 0          | 0     | 0     | 0      | 0     | 0                            | 2     | 0     | 0      | 2     | 0                            | 0     | 0     | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 2     |
| 7:30 AM                 | 0          | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     |
| 7:45 AM                 | 0          | 0     | 0     | 0      | 0     | 0                            | 1     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1     |
| <b>Total Volume</b>     | 0          | 0     | 0     | 0      | 0     | 0                            | 4     | 0     | 0      | 4     | 0                            | 0     | 0     | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 4     |
| <b>% Approach Total</b> | 0.0        | 0.0   | 0.0   | 0.0    |       | 0.0                          | 100.0 | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       | 0.0               | 0.0   | 0.0   | 0.0    |       |       |
| PHF                     | 0.000      | 0.000 | 0.000 | 0.000  | 0.000 | 0.000                        | 0.500 | 0.000 | 0.000  | 0.500 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.500 |
| Entering Leg            | 0          | 0     | 0     | 0      | 0     | 0                            | 4     | 0     | 0      | 4     | 0                            | 0     | 0     | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 4     |
| Exiting Leg             |            |       |       |        |       | 0                            |       |       |        |       |                              | 0     |       |        |       |                   |       | 4     | 4      |       |       |
| <b>Total</b>            |            |       |       |        |       | 0                            |       |       |        |       |                              | 4     |       |        |       |                   |       | 0     | 4      | 8     |       |



PDI File #: 228414 A  
 Location: N: Elm Street S: Washington Street (Route 16)  
 Location: E: Washington Street (Route 16) W: Washington Street  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

|                   | Elm Street |       |      |        |       |       |       | Washington Street (Route 16) |      |      |        |       |       |       | Washington Street (Route 16) |      |      |        |       |       |       | Washington Street |      |      |        |       |       |       | Total |
|-------------------|------------|-------|------|--------|-------|-------|-------|------------------------------|------|------|--------|-------|-------|-------|------------------------------|------|------|--------|-------|-------|-------|-------------------|------|------|--------|-------|-------|-------|-------|
|                   | from North |       |      |        |       |       |       | from East                    |      |      |        |       |       |       | from South                   |      |      |        |       |       |       | from West         |      |      |        |       |       |       |       |
|                   | Right      | Thru  | Left | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru | Left | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru | Left | U-Turn | CW-WB | CW-EB | Total | Right             | Thru | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 7:00 AM           | 0          | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 7:15 AM           | 0          | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 7:30 AM           | 0          | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 7:45 AM           | 0          | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| Total             | 0          | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 8:00 AM           | 0          | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 8:15 AM           | 0          | 1     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 8:30 AM           | 0          | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 8:45 AM           | 0          | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| Total             | 0          | 1     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| Grand Total       | 0          | 1     | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     | 0     |       |
| Approach %        | 0.0        | 100.0 | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   | 66.7  | 33.3                         | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   |       |
| Total %           | 0.0        | 25.0  | 0.0  | 0.0    | 0.0   | 0.0   | 25.0  | 0.0                          | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   | 50.0  | 25.0                         | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   | 75.0  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   |       |
| Exiting Leg Total | 1          |       |      |        |       |       |       | 2                            |      |      |        |       |       |       | 1                            |      |      |        |       |       |       | 0                 |      |      |        |       |       |       | 4     |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Elm Street |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street |       |       |        |       |       |       | Total |
|------------------|------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------------------|-------|-------|--------|-------|-------|-------|-------|
|                  | from North |       |       |        |       |       |       | from East                    |       |       |        |       |       |       | from South                   |       |       |        |       |       |       | from West         |       |       |        |       |       |       |       |
|                  | Right      | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru  | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 7:30 AM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     |       |
| 7:45 AM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     |       |
| 8:00 AM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     |       |
| 8:15 AM          | 0          | 1     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     |       |
| Total Volume     | 0          | 1     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     |       |
| % Approach Total | 0.0        | 100.0 | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 66.7  | 33.3                         | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   |       |
| PHF              | 0.000      | 0.250 | 0.000 | 0.000  | 0.000 | 0.000 | 0.250 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.250 | 0.250                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.375 | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.500 |       |
| Entering Leg     | 0          | 1     | 0     | 0      | 0     | 0     | 1     | 0                            | 0     | 0     | 0      | 0     | 0     | 2     | 1                            | 0     | 0     | 0      | 0     | 0     | 3     | 0                 | 0     | 0     | 0      | 0     | 0     | 4     |       |
| Exiting Leg      | 1          |       |       |        |       |       |       | 2                            |       |       |        |       |       |       | 1                            |       |       |        |       |       |       | 0                 |       |       |        |       |       |       | 4     |
| Total            | 2          |       |       |        |       |       |       | 2                            |       |       |        |       |       |       | 4                            |       |       |        |       |       |       | 0                 |       |       |        |       |       |       | 8     |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Pedestrians**

|                   | Elm Street |      |      |        |       |       |       | Washington Street (Route 16) |      |      |        |       |       |       | Washington Street (Route 16) |      |      |        |       |       |       | Washington Street |      |      |        |       |       |       | Total |
|-------------------|------------|------|------|--------|-------|-------|-------|------------------------------|------|------|--------|-------|-------|-------|------------------------------|------|------|--------|-------|-------|-------|-------------------|------|------|--------|-------|-------|-------|-------|
|                   | from North |      |      |        |       |       |       | from East                    |      |      |        |       |       |       | from South                   |      |      |        |       |       |       | from West         |      |      |        |       |       |       |       |
|                   | Right      | Thru | Left | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru | Left | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru | Left | U-Turn | CW-WB | CW-EB | Total | Right             | Thru | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 7:00 AM           | 0          | 0    | 0    | 0      | 2     | 0     | 2     | 0                            | 0    | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 3     |       |       |
| 7:15 AM           | 0          | 0    | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0    | 0      | 3     | 0     | 3     | 0                            | 0    | 0    | 0      | 0     | 2     | 2     | 0                 | 0    | 0    | 0      | 0     | 7     |       |       |
| 7:30 AM           | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 1     |       |       |
| 7:45 AM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |       |       |
| Total             | 0          | 0    | 0    | 0      | 2     | 3     | 5     | 0                            | 0    | 0    | 0      | 4     | 0     | 4     | 0                            | 0    | 0    | 0      | 2     | 2     | 0     | 0                 | 0    | 0    | 0      | 0     | 11    |       |       |
| 8:00 AM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 3     | 0     | 3     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 3     |       |       |
| 8:15 AM           | 0          | 0    | 0    | 0      | 4     | 2     | 6     | 0                            | 0    | 0    | 0      | 4     | 0     | 4     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 10    |       |       |
| 8:30 AM           | 0          | 0    | 0    | 0      | 2     | 0     | 2     | 0                            | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 3     |       |       |
| 8:45 AM           | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 1     |       |       |
| Total             | 0          | 0    | 0    | 0      | 6     | 3     | 9     | 0                            | 0    | 0    | 0      | 7     | 1     | 8     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 17    |       |       |
| Grand Total       | 0          | 0    | 0    | 0      | 8     | 6     | 14    | 0                            | 0    | 0    | 0      | 11    | 1     | 12    | 0                            | 0    | 0    | 0      | 0     | 2     | 2     | 0                 | 0    | 0    | 0      | 0     | 28    |       |       |
| Approach %        | 0          | 0    | 0    | 0      | 57.1  | 42.9  |       | 0                            | 0    | 0    | 0      | 91.7  | 8.33  |       | 0                            | 0    | 0    | 0      | 0     | 100   |       | 0                 | 0    | 0    | 0      | 0     |       |       |       |
| Total %           | 0          | 0    | 0    | 0      | 28.6  | 21.4  | 50    | 0                            | 0    | 0    | 0      | 39.3  | 3.57  | 42.9  | 0                            | 0    | 0    | 0      | 0     | 7.14  | 7.14  | 0                 | 0    | 0    | 0      | 0     |       |       |       |
| Exiting Leg Total | 14         |      |      |        |       |       |       | 12                           |      |      |        |       |       |       | 2                            |      |      |        |       |       |       | 0                 |      |      |        |       |       |       | 28    |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Elm Street |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street |       |       |        |       |       |       | Total |
|------------------|------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------------------|-------|-------|--------|-------|-------|-------|-------|
|                  | from North |       |       |        |       |       |       | from East                    |       |       |        |       |       |       | from South                   |       |       |        |       |       |       | from West         |       |       |        |       |       |       |       |
|                  | Right      | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru  | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 8:00 AM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 3     | 0     | 3     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 3     |       |       |
| 8:15 AM          | 0          | 0     | 0     | 0      | 4     | 2     | 6     | 0                            | 0     | 0     | 0      | 4     | 0     | 4     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 10    |       |       |
| 8:30 AM          | 0          | 0     | 0     | 0      | 2     | 0     | 2     | 0                            | 0     | 0     | 0      | 0     | 1     | 1     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 3     |       |       |
| 8:45 AM          | 0          | 0     | 0     | 0      | 0     | 1     | 1     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 1     |       |       |
| Total Volume     | 0          | 0     | 0     | 0      | 6     | 3     | 9     | 0                            | 0     | 0     | 0      | 7     | 1     | 8     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 17    |       |       |
| % Approach Total | 0.0        | 0.0   | 0.0   | 0.0    | 66.7  | 33.3  |       | 0.0                          | 0.0   | 0.0   | 0.0    | 87.5  | 12.5  |       | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   |       | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   |       |       |       |
| PHF              | 0.000      | 0.000 | 0.000 | 0.000  | 0.375 | 0.375 | 0.375 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.438 | 0.250 | 0.500 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 |       | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.425 |       |       |
| Entering Leg     | 0          | 0     | 0     | 0      | 6     | 3     | 9     | 0                            | 0     | 0     | 0      | 7     | 1     | 8     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 17    |       |       |
| Exiting Leg      | 9          |       |       |        |       |       |       | 8                            |       |       |        |       |       |       | 0                            |       |       |        |       |       |       | 0                 |       |       |        |       |       |       | 17    |
| Total            | 18         |       |       |        |       |       |       | 16                           |       |       |        |       |       |       | 0                            |       |       |        |       |       |       | 0                 |       |       |        |       |       |       | 34    |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street |      |      |        |       | Total |
|-------------------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------------------|------|------|--------|-------|-------|
|                   | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West         |      |      |        |       |       |
|                   | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right             | Thru | Left | U-Turn | Total |       |
| 4:00 PM           | 46         | 0    | 0    | 0      | 46    | 7                            | 116  | 0    | 0      | 123   | 140                          | 35   | 8    | 0      | 183   | 0                 | 0    | 0    | 0      | 0     | 352   |
| 4:15 PM           | 53         | 0    | 0    | 0      | 53    | 16                           | 143  | 0    | 0      | 159   | 153                          | 31   | 9    | 0      | 193   | 0                 | 0    | 0    | 0      | 0     | 405   |
| 4:30 PM           | 44         | 0    | 0    | 0      | 44    | 8                            | 110  | 0    | 0      | 118   | 153                          | 31   | 11   | 0      | 195   | 0                 | 0    | 0    | 0      | 0     | 357   |
| 4:45 PM           | 45         | 0    | 0    | 0      | 45    | 12                           | 137  | 0    | 0      | 149   | 127                          | 40   | 8    | 0      | 175   | 0                 | 0    | 0    | 0      | 0     | 369   |
| <b>Total</b>      | 188        | 0    | 0    | 0      | 188   | 43                           | 506  | 0    | 0      | 549   | 573                          | 137  | 36   | 0      | 746   | 0                 | 0    | 0    | 0      | 0     | 1483  |
| 5:00 PM           | 66         | 0    | 0    | 0      | 66    | 10                           | 122  | 0    | 0      | 132   | 155                          | 26   | 4    | 0      | 185   | 0                 | 0    | 0    | 0      | 0     | 383   |
| 5:15 PM           | 50         | 0    | 0    | 0      | 50    | 14                           | 153  | 0    | 0      | 167   | 161                          | 31   | 11   | 0      | 203   | 0                 | 0    | 0    | 0      | 0     | 420   |
| 5:30 PM           | 58         | 0    | 0    | 0      | 58    | 17                           | 119  | 0    | 0      | 136   | 169                          | 43   | 10   | 0      | 222   | 0                 | 0    | 0    | 0      | 0     | 416   |
| 5:45 PM           | 53         | 0    | 0    | 0      | 53    | 19                           | 132  | 0    | 0      | 151   | 187                          | 39   | 8    | 0      | 234   | 0                 | 0    | 0    | 0      | 0     | 438   |
| <b>Total</b>      | 227        | 0    | 0    | 0      | 227   | 60                           | 526  | 0    | 0      | 586   | 672                          | 139  | 33   | 0      | 844   | 0                 | 0    | 0    | 0      | 0     | 1657  |
| Grand Total       | 415        | 0    | 0    | 0      | 415   | 103                          | 1032 | 0    | 0      | 1135  | 1245                         | 276  | 69   | 0      | 1590  | 0                 | 0    | 0    | 0      | 0     | 3140  |
| Approach %        | 100.0      | 0.0  | 0.0  | 0.0    |       | 9.1                          | 90.9 | 0.0  | 0.0    |       | 78.3                         | 17.4 | 4.3  | 0.0    |       | 0.0               | 0.0  | 0.0  | 0.0    |       |       |
| Total %           | 13.2       | 0.0  | 0.0  | 0.0    | 13.2  | 3.3                          | 32.9 | 0.0  | 0.0    | 36.1  | 39.6                         | 8.8  | 2.2  | 0.0    | 50.6  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   |       |
| Exiting Leg Total | 379        |      |      |        |       | 1245                         |      |      |        |       | 0                            |      |      |        |       | 1516              |      |      |        |       | 3140  |
| Cars              | 404        | 0    | 0    | 0      | 404   | 95                           | 1015 | 0    | 0      | 1110  | 1225                         | 267  | 68   | 0      | 1560  | 0                 | 0    | 0    | 0      | 0     | 3074  |
| % Cars            | 97.3       | 0.0  | 0.0  | 0.0    | 97.3  | 92.2                         | 98.4 | 0.0  | 0.0    | 97.8  | 98.4                         | 96.7 | 98.6 | 0.0    | 98.1  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   | 97.9  |
| Exiting Leg Total | 362        |      |      |        |       | 1225                         |      |      |        |       | 0                            |      |      |        |       | 1487              |      |      |        |       | 3074  |
| Heavy Vehicles    | 11         | 0    | 0    | 0      | 11    | 8                            | 17   | 0    | 0      | 25    | 20                           | 9    | 1    | 0      | 30    | 0                 | 0    | 0    | 0      | 0     | 66    |
| % Heavy Vehicles  | 2.7        | 0.0  | 0.0  | 0.0    | 2.7   | 7.8                          | 1.6  | 0.0  | 0.0    | 2.2   | 1.6                          | 3.3  | 1.4  | 0.0    | 1.9   | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   | 2.1   |
| Exiting Leg Total | 17         |      |      |        |       | 20                           |      |      |        |       | 0                            |      |      |        |       | 29                |      |      |        |       | 66    |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 5:00 PM            | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street |       |       |        |       | Total |
|--------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------------------|-------|-------|--------|-------|-------|
|                    | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West         |       |       |        |       |       |
|                    | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right             | Thru  | Left  | U-Turn | Total |       |
| 5:00 PM            | 66         | 0     | 0     | 0      | 66    | 10                           | 122   | 0     | 0      | 132   | 155                          | 26    | 4     | 0      | 185   | 0                 | 0     | 0     | 0      | 0     | 383   |
| 5:15 PM            | 50         | 0     | 0     | 0      | 50    | 14                           | 153   | 0     | 0      | 167   | 161                          | 31    | 11    | 0      | 203   | 0                 | 0     | 0     | 0      | 0     | 420   |
| 5:30 PM            | 58         | 0     | 0     | 0      | 58    | 17                           | 119   | 0     | 0      | 136   | 169                          | 43    | 10    | 0      | 222   | 0                 | 0     | 0     | 0      | 0     | 416   |
| 5:45 PM            | 53         | 0     | 0     | 0      | 53    | 19                           | 132   | 0     | 0      | 151   | 187                          | 39    | 8     | 0      | 234   | 0                 | 0     | 0     | 0      | 0     | 438   |
| Total Volume       | 227        | 0     | 0     | 0      | 227   | 60                           | 526   | 0     | 0      | 586   | 672                          | 139   | 33    | 0      | 844   | 0                 | 0     | 0     | 0      | 0     | 1657  |
| % Approach Total   | 100.0      | 0.0   | 0.0   | 0.0    |       | 10.2                         | 89.8  | 0.0   | 0.0    |       | 79.6                         | 16.5  | 3.9   | 0.0    |       | 0.0               | 0.0   | 0.0   | 0.0    |       |       |
| PHF                | 0.860      | 0.000 | 0.000 | 0.000  | 0.860 | 0.789                        | 0.859 | 0.000 | 0.000  | 0.877 | 0.898                        | 0.808 | 0.750 | 0.000  | 0.902 | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.946 |
| Cars               | 222        | 0     | 0     | 0      | 222   | 56                           | 520   | 0     | 0      | 576   | 665                          | 135   | 33    | 0      | 833   | 0                 | 0     | 0     | 0      | 0     | 1631  |
| Cars %             | 97.8       | 0.0   | 0.0   | 0.0    | 97.8  | 93.3                         | 98.9  | 0.0   | 0.0    | 98.3  | 99.0                         | 97.1  | 100.0 | 0.0    | 98.7  | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   | 98.4  |
| Heavy Vehicles     | 5          | 0     | 0     | 0      | 5     | 4                            | 6     | 0     | 0      | 10    | 7                            | 4     | 0     | 0      | 11    | 0                 | 0     | 0     | 0      | 0     | 26    |
| Heavy Vehicles %   | 2.2        | 0.0   | 0.0   | 0.0    | 2.2   | 6.7                          | 1.1   | 0.0   | 0.0    | 1.7   | 1.0                          | 2.9   | 0.0   | 0.0    | 1.3   | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   | 1.6   |
| Cars Enter Leg     | 222        | 0     | 0     | 0      | 222   | 56                           | 520   | 0     | 0      | 576   | 665                          | 135   | 33    | 0      | 833   | 0                 | 0     | 0     | 0      | 0     | 1631  |
| Heavy Enter Leg    | 5          | 0     | 0     | 0      | 5     | 4                            | 6     | 0     | 0      | 10    | 7                            | 4     | 0     | 0      | 11    | 0                 | 0     | 0     | 0      | 0     | 26    |
| Total Entering Leg | 227        | 0     | 0     | 0      | 227   | 60                           | 526   | 0     | 0      | 586   | 672                          | 139   | 33    | 0      | 844   | 0                 | 0     | 0     | 0      | 0     | 1657  |
| Cars Exiting Leg   | 191        |       |       |        |       | 665                          |       |       |        |       | 0                            |       |       |        |       | 775               |       |       |        |       | 1631  |
| Heavy Exiting Leg  | 8          |       |       |        |       | 7                            |       |       |        |       | 0                            |       |       |        |       | 11                |       |       |        |       | 26    |
| Total Exiting Leg  | 199        |       |       |        |       | 672                          |       |       |        |       | 0                            |       |       |        |       | 786               |       |       |        |       | 1657  |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars**

|                   | Elm Street |          |          |          |            | Washington Street (Route 16) |            |          |          |            | Washington Street (Route 16) |            |           |          |            | Washington Street |          |          |          |          | Total       |
|-------------------|------------|----------|----------|----------|------------|------------------------------|------------|----------|----------|------------|------------------------------|------------|-----------|----------|------------|-------------------|----------|----------|----------|----------|-------------|
|                   | from North |          |          |          |            | from East                    |            |          |          |            | from South                   |            |           |          |            | from West         |          |          |          |          |             |
|                   | Right      | Thru     | Left     | U-Turn   | Total      | Right                        | Thru       | Left     | U-Turn   | Total      | Right                        | Thru       | Left      | U-Turn   | Total      | Right             | Thru     | Left     | U-Turn   | Total    |             |
| 4:00 PM           | 45         | 0        | 0        | 0        | 45         | 5                            | 114        | 0        | 0        | 119        | 137                          | 33         | 8         | 0        | 178        | 0                 | 0        | 0        | 0        | 0        | 342         |
| 4:15 PM           | 52         | 0        | 0        | 0        | 52         | 16                           | 140        | 0        | 0        | 156        | 148                          | 29         | 9         | 0        | 186        | 0                 | 0        | 0        | 0        | 0        | 394         |
| 4:30 PM           | 41         | 0        | 0        | 0        | 41         | 6                            | 108        | 0        | 0        | 114        | 149                          | 30         | 10        | 0        | 189        | 0                 | 0        | 0        | 0        | 0        | 344         |
| 4:45 PM           | 44         | 0        | 0        | 0        | 44         | 12                           | 133        | 0        | 0        | 145        | 126                          | 40         | 8         | 0        | 174        | 0                 | 0        | 0        | 0        | 0        | 363         |
| <b>Total</b>      | <b>182</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>182</b> | <b>39</b>                    | <b>495</b> | <b>0</b> | <b>0</b> | <b>534</b> | <b>560</b>                   | <b>132</b> | <b>35</b> | <b>0</b> | <b>727</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>1443</b> |
| 5:00 PM           | 66         | 0        | 0        | 0        | 66         | 9                            | 120        | 0        | 0        | 129        | 153                          | 26         | 4         | 0        | 183        | 0                 | 0        | 0        | 0        | 0        | 378         |
| 5:15 PM           | 48         | 0        | 0        | 0        | 48         | 13                           | 152        | 0        | 0        | 165        | 160                          | 31         | 11        | 0        | 202        | 0                 | 0        | 0        | 0        | 0        | 415         |
| 5:30 PM           | 56         | 0        | 0        | 0        | 56         | 17                           | 118        | 0        | 0        | 135        | 166                          | 41         | 10        | 0        | 217        | 0                 | 0        | 0        | 0        | 0        | 408         |
| 5:45 PM           | 52         | 0        | 0        | 0        | 52         | 17                           | 130        | 0        | 0        | 147        | 186                          | 37         | 8         | 0        | 231        | 0                 | 0        | 0        | 0        | 0        | 430         |
| <b>Total</b>      | <b>222</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>222</b> | <b>56</b>                    | <b>520</b> | <b>0</b> | <b>0</b> | <b>576</b> | <b>665</b>                   | <b>135</b> | <b>33</b> | <b>0</b> | <b>833</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>1631</b> |
| Grand Total       | 404        | 0        | 0        | 0        | 404        | 95                           | 1015       | 0        | 0        | 1110       | 1225                         | 267        | 68        | 0        | 1560       | 0                 | 0        | 0        | 0        | 0        | 3074        |
| Approach %        | 100.0      | 0.0      | 0.0      | 0.0      |            | 8.6                          | 91.4       | 0.0      | 0.0      |            | 78.5                         | 17.1       | 4.4       | 0.0      |            | 0.0               | 0.0      | 0.0      | 0.0      |          |             |
| Total %           | 13.1       | 0.0      | 0.0      | 0.0      | 13.1       | 3.1                          | 33.0       | 0.0      | 0.0      | 36.1       | 39.9                         | 8.7        | 2.2       | 0.0      | 50.7       | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      |             |
| Exiting Leg Total |            |          |          |          | 362        |                              |            |          |          | 1225       |                              |            |           |          | 0          |                   |          |          |          | 1487     | 3074        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                         | Elm Street   |            |            |            |            | Washington Street (Route 16) |             |            |            |             | Washington Street (Route 16) |             |            |            |            | Washington Street |            |            |            |            | Total       |
|-------------------------|--------------|------------|------------|------------|------------|------------------------------|-------------|------------|------------|-------------|------------------------------|-------------|------------|------------|------------|-------------------|------------|------------|------------|------------|-------------|
|                         | from North   |            |            |            |            | from East                    |             |            |            |             | from South                   |             |            |            |            | from West         |            |            |            |            |             |
|                         | Right        | Thru       | Left       | U-Turn     | Total      | Right                        | Thru        | Left       | U-Turn     | Total       | Right                        | Thru        | Left       | U-Turn     | Total      | Right             | Thru       | Left       | U-Turn     | Total      |             |
| 5:00 PM                 | 66           | 0          | 0          | 0          | 66         | 9                            | 120         | 0          | 0          | 129         | 153                          | 26          | 4          | 0          | 183        | 0                 | 0          | 0          | 0          | 0          | 378         |
| 5:15 PM                 | 48           | 0          | 0          | 0          | 48         | 13                           | 152         | 0          | 0          | 165         | 160                          | 31          | 11         | 0          | 202        | 0                 | 0          | 0          | 0          | 0          | 415         |
| 5:30 PM                 | 56           | 0          | 0          | 0          | 56         | 17                           | 118         | 0          | 0          | 135         | 166                          | 41          | 10         | 0          | 217        | 0                 | 0          | 0          | 0          | 0          | 408         |
| 5:45 PM                 | 52           | 0          | 0          | 0          | 52         | 17                           | 130         | 0          | 0          | 147         | 186                          | 37          | 8          | 0          | 231        | 0                 | 0          | 0          | 0          | 0          | 430         |
| <b>Total Volume</b>     | <b>222</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>222</b> | <b>56</b>                    | <b>520</b>  | <b>0</b>   | <b>0</b>   | <b>576</b>  | <b>665</b>                   | <b>135</b>  | <b>33</b>  | <b>0</b>   | <b>833</b> | <b>0</b>          | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>1631</b> |
| <b>% Approach Total</b> | <b>100.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> |            | <b>9.7</b>                   | <b>90.3</b> | <b>0.0</b> | <b>0.0</b> |             | <b>79.8</b>                  | <b>16.2</b> | <b>4.0</b> | <b>0.0</b> |            | <b>0.0</b>        | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> |            |             |
| PHF                     | 0.841        | 0.000      | 0.000      | 0.000      | 0.841      | 0.824                        | 0.855       | 0.000      | 0.000      | 0.873       | 0.894                        | 0.823       | 0.750      | 0.000      | 0.902      | 0.000             | 0.000      | 0.000      | 0.000      | 0.000      | 0.948       |
| Entering Leg            | 222          | 0          | 0          | 0          | 222        | 56                           | 520         | 0          | 0          | 576         | 665                          | 135         | 33         | 0          | 833        | 0                 | 0          | 0          | 0          | 0          | 1631        |
| Exiting Leg             |              |            |            |            | 191        |                              |             |            |            | 665         |                              |             |            |            | 0          |                   |            |            |            | 775        | 1631        |
| <b>Total</b>            |              |            |            |            | <b>413</b> |                              |             |            |            | <b>1241</b> |                              |             |            |            | <b>833</b> |                   |            |            |            | <b>775</b> | <b>3262</b> |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |       |        |       | Washington Street |      |      |        |       | Total |
|--------------------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|-------|--------|-------|-------------------|------|------|--------|-------|-------|
|                    | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |       |        |       | from West         |      |      |        |       |       |
|                    | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left  | U-Turn | Total | Right             | Thru | Left | U-Turn | Total |       |
| 4:00 PM            | 1          | 0    | 0    | 0      | 1     | 2                            | 2    | 0    | 0      | 4     | 3                            | 2    | 0     | 0      | 5     | 0                 | 0    | 0    | 0      | 0     | 10    |
| 4:15 PM            | 1          | 0    | 0    | 0      | 1     | 0                            | 3    | 0    | 0      | 3     | 5                            | 2    | 0     | 0      | 7     | 0                 | 0    | 0    | 0      | 0     | 11    |
| 4:30 PM            | 3          | 0    | 0    | 0      | 3     | 2                            | 2    | 0    | 0      | 4     | 4                            | 1    | 1     | 0      | 6     | 0                 | 0    | 0    | 0      | 0     | 13    |
| 4:45 PM            | 1          | 0    | 0    | 0      | 1     | 0                            | 4    | 0    | 0      | 4     | 1                            | 0    | 0     | 0      | 1     | 0                 | 0    | 0    | 0      | 0     | 6     |
| <b>Total</b>       | 6          | 0    | 0    | 0      | 6     | 4                            | 11   | 0    | 0      | 15    | 13                           | 5    | 1     | 0      | 19    | 0                 | 0    | 0    | 0      | 0     | 40    |
| 5:00 PM            | 0          | 0    | 0    | 0      | 0     | 1                            | 2    | 0    | 0      | 3     | 2                            | 0    | 0     | 0      | 2     | 0                 | 0    | 0    | 0      | 0     | 5     |
| 5:15 PM            | 2          | 0    | 0    | 0      | 2     | 1                            | 1    | 0    | 0      | 2     | 1                            | 0    | 0     | 0      | 1     | 0                 | 0    | 0    | 0      | 0     | 5     |
| 5:30 PM            | 2          | 0    | 0    | 0      | 2     | 0                            | 1    | 0    | 0      | 1     | 3                            | 2    | 0     | 0      | 5     | 0                 | 0    | 0    | 0      | 0     | 8     |
| 5:45 PM            | 1          | 0    | 0    | 0      | 1     | 2                            | 2    | 0    | 0      | 4     | 1                            | 2    | 0     | 0      | 3     | 0                 | 0    | 0    | 0      | 0     | 8     |
| <b>Total</b>       | 5          | 0    | 0    | 0      | 5     | 4                            | 6    | 0    | 0      | 10    | 7                            | 4    | 0     | 0      | 11    | 0                 | 0    | 0    | 0      | 0     | 26    |
| Grand Total        | 11         | 0    | 0    | 0      | 11    | 8                            | 17   | 0    | 0      | 25    | 20                           | 9    | 1     | 0      | 30    | 0                 | 0    | 0    | 0      | 0     | 66    |
| Approach %         | 100.0      | 0.0  | 0.0  | 0.0    |       | 32.0                         | 68.0 | 0.0  | 0.0    |       | 66.7                         | 30.0 | 3.3   | 0.0    |       | 0.0               | 0.0  | 0.0  | 0.0    |       |       |
| Total %            | 16.7       | 0.0  | 0.0  | 0.0    | 16.7  | 12.1                         | 25.8 | 0.0  | 0.0    | 37.9  | 30.3                         | 13.6 | 1.5   | 0.0    | 45.5  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   |       |
| Exiting Leg Total  | 17         |      |      |        |       | 20                           |      |      |        |       | 0                            |      |       |        |       | 29                |      |      |        |       | 66    |
| Buses              | 6          | 0    | 0    | 0      | 6     | 5                            | 3    | 0    | 0      | 8     | 8                            | 3    | 0     | 0      | 11    | 0                 | 0    | 0    | 0      | 0     | 25    |
| % Buses            | 54.5       | 0.0  | 0.0  | 0.0    | 54.5  | 62.5                         | 17.6 | 0.0  | 0.0    | 32.0  | 40.0                         | 33.3 | 0.0   | 0.0    | 36.7  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   | 37.9  |
| Exiting Leg Total  | 8          |      |      |        |       | 8                            |      |      |        |       | 0                            |      |       |        |       | 9                 |      |      |        |       | 25    |
| Single-Unit Trucks | 5          | 0    | 0    | 0      | 5     | 2                            | 13   | 0    | 0      | 15    | 11                           | 5    | 1     | 0      | 17    | 0                 | 0    | 0    | 0      | 0     | 37    |
| % Single-Unit      | 45.5       | 0.0  | 0.0  | 0.0    | 45.5  | 25.0                         | 76.5 | 0.0  | 0.0    | 60.0  | 55.0                         | 55.6 | 100.0 | 0.0    | 56.7  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   | 56.1  |
| Exiting Leg Total  | 7          |      |      |        |       | 11                           |      |      |        |       | 0                            |      |       |        |       | 19                |      |      |        |       | 37    |
| Articulated Trucks | 0          | 0    | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 1                            | 1    | 0     | 0      | 2     | 0                 | 0    | 0    | 0      | 0     | 4     |
| % Articulated      | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 12.5                         | 5.9  | 0.0  | 0.0    | 8.0   | 5.0                          | 11.1 | 0.0   | 0.0    | 6.7   | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   | 6.1   |
| Exiting Leg Total  | 2          |      |      |        |       | 1                            |      |      |        |       | 0                            |      |       |        |       | 1                 |      |      |        |       | 4     |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM            | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street |       |       |        |       | Total |
|--------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------------------|-------|-------|--------|-------|-------|
|                    | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West         |       |       |        |       |       |
|                    | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right             | Thru  | Left  | U-Turn | Total |       |
| 4:00 PM            | 1          | 0     | 0     | 0      | 1     | 2                            | 2     | 0     | 0      | 4     | 3                            | 2     | 0     | 0      | 5     | 0                 | 0     | 0     | 0      | 0     | 10    |
| 4:15 PM            | 1          | 0     | 0     | 0      | 1     | 0                            | 3     | 0     | 0      | 3     | 5                            | 2     | 0     | 0      | 7     | 0                 | 0     | 0     | 0      | 0     | 11    |
| 4:30 PM            | 3          | 0     | 0     | 0      | 3     | 2                            | 2     | 0     | 0      | 4     | 4                            | 1     | 1     | 0      | 6     | 0                 | 0     | 0     | 0      | 0     | 13    |
| 4:45 PM            | 1          | 0     | 0     | 0      | 1     | 0                            | 4     | 0     | 0      | 4     | 1                            | 0     | 0     | 0      | 1     | 0                 | 0     | 0     | 0      | 0     | 6     |
| Total Volume       | 6          | 0     | 0     | 0      | 6     | 4                            | 11    | 0     | 0      | 15    | 13                           | 5     | 1     | 0      | 19    | 0                 | 0     | 0     | 0      | 0     | 40    |
| % Approach Total   | 100.0      | 0.0   | 0.0   | 0.0    |       | 26.7                         | 73.3  | 0.0   | 0.0    |       | 68.4                         | 26.3  | 5.3   | 0.0    |       | 0.0               | 0.0   | 0.0   | 0.0    |       |       |
| PHF                | 0.500      | 0.000 | 0.000 | 0.000  | 0.500 | 0.500                        | 0.688 | 0.000 | 0.000  | 0.938 | 0.650                        | 0.625 | 0.250 | 0.000  | 0.679 | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.769 |
| Buses              | 4          | 0     | 0     | 0      | 4     | 2                            | 2     | 0     | 0      | 4     | 7                            | 2     | 0     | 0      | 9     | 0                 | 0     | 0     | 0      | 0     | 17    |
| Buses %            | 66.7       | 0.0   | 0.0   | 0.0    | 66.7  | 50.0                         | 18.2  | 0.0   | 0.0    | 26.7  | 53.8                         | 40.0  | 0.0   | 0.0    | 47.4  | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   | 42.5  |
| Single-Unit Trucks | 2          | 0     | 0     | 0      | 2     | 1                            | 8     | 0     | 0      | 9     | 6                            | 2     | 1     | 0      | 9     | 0                 | 0     | 0     | 0      | 0     | 20    |
| Single-Unit %      | 33.3       | 0.0   | 0.0   | 0.0    | 33.3  | 25.0                         | 72.7  | 0.0   | 0.0    | 60.0  | 46.2                         | 40.0  | 100.0 | 0.0    | 47.4  | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   | 50.0  |
| Articulated Trucks | 0          | 0     | 0     | 0      | 0     | 1                            | 1     | 0     | 0      | 2     | 0                            | 1     | 0     | 0      | 1     | 0                 | 0     | 0     | 0      | 0     | 3     |
| Articulated %      | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 25.0                         | 9.1   | 0.0   | 0.0    | 13.3  | 0.0                          | 20.0  | 0.0   | 0.0    | 5.3   | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   | 7.5   |
| Buses              | 4          | 0     | 0     | 0      | 4     | 2                            | 2     | 0     | 0      | 4     | 7                            | 2     | 0     | 0      | 9     | 0                 | 0     | 0     | 0      | 0     | 17    |
| Single-Unit Trucks | 2          | 0     | 0     | 0      | 2     | 1                            | 8     | 0     | 0      | 9     | 6                            | 2     | 1     | 0      | 9     | 0                 | 0     | 0     | 0      | 0     | 20    |
| Articulated Trucks | 0          | 0     | 0     | 0      | 0     | 1                            | 1     | 0     | 0      | 2     | 0                            | 1     | 0     | 0      | 1     | 0                 | 0     | 0     | 0      | 0     | 3     |
| Total Entering Leg | 6          | 0     | 0     | 0      | 6     | 4                            | 11    | 0     | 0      | 15    | 13                           | 5     | 1     | 0      | 19    | 0                 | 0     | 0     | 0      | 0     | 40    |
| Buses              | 4          |       |       |        |       | 7                            |       |       |        |       | 0                            |       |       |        |       | 6                 |       |       |        |       | 17    |
| Single-Unit Trucks | 3          |       |       |        |       | 6                            |       |       |        |       | 0                            |       |       |        |       | 11                |       |       |        |       | 20    |
| Articulated Trucks | 2          |       |       |        |       | 0                            |       |       |        |       | 0                            |       |       |        |       | 1                 |       |       |        |       | 3     |
| Total Exiting Leg  | 9          |       |       |        |       | 13                           |       |       |        |       | 0                            |       |       |        |       | 18                |       |       |        |       | 40    |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Buses**

|                   | Elm Street |          |          |          |          | Washington Street (Route 16) |          |          |          |          | Washington Street (Route 16) |          |          |          |          | Washington Street |          |          |          |          | Total     |
|-------------------|------------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|-----------|
|                   | from North |          |          |          |          | from East                    |          |          |          |          | from South                   |          |          |          |          | from West         |          |          |          |          |           |
|                   | Right      | Thru     | Left     | U-Turn   | Total    | Right                        | Thru     | Left     | U-Turn   | Total    | Right                        | Thru     | Left     | U-Turn   | Total    | Right             | Thru     | Left     | U-Turn   | Total    |           |
| 4:00 PM           | 0          | 0        | 0        | 0        | 0        | 1                            | 1        | 0        | 0        | 2        | 0                            | 1        | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 3         |
| 4:15 PM           | 1          | 0        | 0        | 0        | 1        | 0                            | 1        | 0        | 0        | 1        | 5                            | 0        | 0        | 0        | 5        | 0                 | 0        | 0        | 0        | 0        | 7         |
| 4:30 PM           | 3          | 0        | 0        | 0        | 3        | 1                            | 0        | 0        | 0        | 1        | 2                            | 1        | 0        | 0        | 3        | 0                 | 0        | 0        | 0        | 0        | 7         |
| 4:45 PM           | 0          | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0         |
| <b>Total</b>      | <b>4</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>2</b>                     | <b>2</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>7</b>                     | <b>2</b> | <b>0</b> | <b>0</b> | <b>9</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>17</b> |
| 5:00 PM           | 0          | 0        | 0        | 0        | 0        | 1                            | 0        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1         |
| 5:15 PM           | 2          | 0        | 0        | 0        | 2        | 1                            | 0        | 0        | 0        | 1        | 1                            | 0        | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 4         |
| 5:30 PM           | 0          | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0                            | 1        | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 1         |
| 5:45 PM           | 0          | 0        | 0        | 0        | 0        | 1                            | 1        | 0        | 0        | 2        | 0                            | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 2         |
| <b>Total</b>      | <b>2</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>3</b>                     | <b>1</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>1</b>                     | <b>1</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>8</b>  |
| Grand Total       | 6          | 0        | 0        | 0        | 6        | 5                            | 3        | 0        | 0        | 8        | 8                            | 3        | 0        | 0        | 11       | 0                 | 0        | 0        | 0        | 0        | 25        |
| Approach %        | 100.0      | 0.0      | 0.0      | 0.0      |          | 62.5                         | 37.5     | 0.0      | 0.0      |          | 72.7                         | 27.3     | 0.0      | 0.0      |          | 0.0               | 0.0      | 0.0      | 0.0      |          |           |
| Total %           | 24.0       | 0.0      | 0.0      | 0.0      | 24.0     | 20.0                         | 12.0     | 0.0      | 0.0      | 32.0     | 32.0                         | 12.0     | 0.0      | 0.0      | 44.0     | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      |           |
| Exiting Leg Total | 8          |          |          |          |          | 8                            |          |          |          |          | 0                            |          |          |          |          | 9                 |          |          |          |          | 25        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street |       |       |        |       | Total |
|------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------------------|-------|-------|--------|-------|-------|
|                  | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West         |       |       |        |       |       |
|                  | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right             | Thru  | Left  | U-Turn | Total |       |
| 4:00 PM          | 0          | 0     | 0     | 0      | 0     | 1                            | 1     | 0     | 0      | 2     | 0                            | 1     | 0     | 0      | 1     | 0                 | 0     | 0     | 0      | 0     | 3     |
| 4:15 PM          | 1          | 0     | 0     | 0      | 1     | 0                            | 1     | 0     | 0      | 1     | 5                            | 0     | 0     | 0      | 5     | 0                 | 0     | 0     | 0      | 0     | 7     |
| 4:30 PM          | 3          | 0     | 0     | 0      | 3     | 1                            | 0     | 0     | 0      | 1     | 2                            | 1     | 0     | 0      | 3     | 0                 | 0     | 0     | 0      | 0     | 7     |
| 4:45 PM          | 0          | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     |
| Total Volume     | 4          | 0     | 0     | 0      | 4     | 2                            | 2     | 0     | 0      | 4     | 7                            | 2     | 0     | 0      | 9     | 0                 | 0     | 0     | 0      | 0     | 17    |
| % Approach Total | 100.0      | 0.0   | 0.0   | 0.0    |       | 50.0                         | 50.0  | 0.0   | 0.0    |       | 77.8                         | 22.2  | 0.0   | 0.0    |       | 0.0               | 0.0   | 0.0   | 0.0    |       |       |
| PHF              | 0.333      | 0.000 | 0.000 | 0.000  | 0.333 | 0.500                        | 0.500 | 0.000 | 0.000  | 0.500 | 0.350                        | 0.500 | 0.000 | 0.000  | 0.450 | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.607 |
| Entering Leg     | 4          | 0     | 0     | 0      | 4     | 2                            | 2     | 0     | 0      | 4     | 7                            | 2     | 0     | 0      | 9     | 0                 | 0     | 0     | 0      | 0     | 17    |
| Exiting Leg      | 4          |       |       |        |       | 7                            |       |       |        |       | 0                            |       |       |        |       | 6                 |       |       |        |       | 17    |
| Total            | 8          |       |       |        |       | 11                           |       |       |        |       | 9                            |       |       |        |       | 6                 |       |       |        |       | 34    |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Single-Unit Trucks**

|                   | Elm Street |          |          |          |          | Washington Street (Route 16) |          |          |          |          | Washington Street (Route 16) |          |          |          |          | Washington Street |          |          |          |          | Total     |    |
|-------------------|------------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|-----------|----|
|                   | from North |          |          |          |          | from East                    |          |          |          |          | from South                   |          |          |          |          | from West         |          |          |          |          |           |    |
|                   | Right      | Thru     | Left     | U-Turn   | Total    | Right                        | Thru     | Left     | U-Turn   | Total    | Right                        | Thru     | Left     | U-Turn   | Total    | Right             | Thru     | Left     | U-Turn   | Total    |           |    |
| 4:00 PM           | 1          | 0        | 0        | 0        | 1        | 0                            | 1        | 0        | 0        | 1        | 3                            | 0        | 0        | 0        | 3        | 0                 | 0        | 0        | 0        | 0        | 5         |    |
| 4:15 PM           | 0          | 0        | 0        | 0        | 0        | 0                            | 2        | 0        | 0        | 2        | 0                            | 2        | 0        | 0        | 2        | 0                 | 0        | 0        | 0        | 0        | 4         |    |
| 4:30 PM           | 0          | 0        | 0        | 0        | 0        | 1                            | 2        | 0        | 0        | 3        | 2                            | 0        | 1        | 0        | 3        | 0                 | 0        | 0        | 0        | 0        | 6         |    |
| 4:45 PM           | 1          | 0        | 0        | 0        | 1        | 0                            | 3        | 0        | 0        | 3        | 1                            | 0        | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 5         |    |
| <b>Total</b>      | <b>2</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>1</b>                     | <b>8</b> | <b>0</b> | <b>0</b> | <b>9</b> | <b>6</b>                     | <b>2</b> | <b>1</b> | <b>0</b> | <b>9</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>20</b> |    |
| 5:00 PM           | 0          | 0        | 0        | 0        | 0        | 0                            | 2        | 0        | 0        | 2        | 2                            | 0        | 0        | 0        | 2        | 0                 | 0        | 0        | 0        | 0        | 4         |    |
| 5:15 PM           | 0          | 0        | 0        | 0        | 0        | 0                            | 1        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1         |    |
| 5:30 PM           | 2          | 0        | 0        | 0        | 2        | 0                            | 1        | 0        | 0        | 1        | 2                            | 1        | 0        | 0        | 3        | 0                 | 0        | 0        | 0        | 0        | 6         |    |
| 5:45 PM           | 1          | 0        | 0        | 0        | 1        | 1                            | 1        | 0        | 0        | 2        | 1                            | 2        | 0        | 0        | 3        | 0                 | 0        | 0        | 0        | 0        | 6         |    |
| <b>Total</b>      | <b>3</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b> | <b>1</b>                     | <b>5</b> | <b>0</b> | <b>0</b> | <b>6</b> | <b>5</b>                     | <b>3</b> | <b>0</b> | <b>0</b> | <b>8</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>17</b> |    |
| Grand Total       | 5          | 0        | 0        | 0        | 5        | 2                            | 13       | 0        | 0        | 15       | 11                           | 5        | 1        | 0        | 17       | 0                 | 0        | 0        | 0        | 0        | 37        |    |
| Approach %        | 100.0      | 0.0      | 0.0      | 0.0      |          | 13.3                         | 86.7     | 0.0      | 0.0      |          | 64.7                         | 29.4     | 5.9      | 0.0      |          | 0.0               | 0.0      | 0.0      | 0.0      |          |           |    |
| Total %           | 13.5       | 0.0      | 0.0      | 0.0      | 13.5     | 5.4                          | 35.1     | 0.0      | 0.0      | 40.5     | 29.7                         | 13.5     | 2.7      | 0.0      | 45.9     | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      |           |    |
| Exiting Leg Total |            |          |          |          |          | 7                            |          |          |          |          | 11                           |          |          |          |          | 0                 |          |          |          |          | 19        | 37 |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                         | Elm Street   |            |            |            |          | Washington Street (Route 16) |             |            |            |          | Washington Street (Route 16) |             |             |            |          | Washington Street |            |            |            |          | Total     |    |  |  |  |    |
|-------------------------|--------------|------------|------------|------------|----------|------------------------------|-------------|------------|------------|----------|------------------------------|-------------|-------------|------------|----------|-------------------|------------|------------|------------|----------|-----------|----|--|--|--|----|
|                         | from North   |            |            |            |          | from East                    |             |            |            |          | from South                   |             |             |            |          | from West         |            |            |            |          |           |    |  |  |  |    |
|                         | Right        | Thru       | Left       | U-Turn     | Total    | Right                        | Thru        | Left       | U-Turn     | Total    | Right                        | Thru        | Left        | U-Turn     | Total    | Right             | Thru       | Left       | U-Turn     | Total    |           |    |  |  |  |    |
| 4:00 PM                 | 1            | 0          | 0          | 0          | 1        | 0                            | 1           | 0          | 0          | 1        | 3                            | 0           | 0           | 0          | 3        | 0                 | 0          | 0          | 0          | 0        | 5         |    |  |  |  |    |
| 4:15 PM                 | 0            | 0          | 0          | 0          | 0        | 0                            | 2           | 0          | 0          | 2        | 0                            | 2           | 0           | 0          | 2        | 0                 | 0          | 0          | 0          | 0        | 4         |    |  |  |  |    |
| 4:30 PM                 | 0            | 0          | 0          | 0          | 0        | 1                            | 2           | 0          | 0          | 3        | 2                            | 0           | 1           | 0          | 3        | 0                 | 0          | 0          | 0          | 0        | 6         |    |  |  |  |    |
| 4:45 PM                 | 1            | 0          | 0          | 0          | 1        | 0                            | 3           | 0          | 0          | 3        | 1                            | 0           | 0           | 0          | 1        | 0                 | 0          | 0          | 0          | 0        | 5         |    |  |  |  |    |
| <b>Total Volume</b>     | <b>2</b>     | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>2</b> | <b>1</b>                     | <b>8</b>    | <b>0</b>   | <b>0</b>   | <b>9</b> | <b>6</b>                     | <b>2</b>    | <b>1</b>    | <b>0</b>   | <b>9</b> | <b>0</b>          | <b>0</b>   | <b>0</b>   | <b>0</b>   | <b>0</b> | <b>20</b> |    |  |  |  |    |
| <b>% Approach Total</b> | <b>100.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> |          | <b>11.1</b>                  | <b>88.9</b> | <b>0.0</b> | <b>0.0</b> |          | <b>66.7</b>                  | <b>22.2</b> | <b>11.1</b> | <b>0.0</b> |          | <b>0.0</b>        | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> |          |           |    |  |  |  |    |
| PHF                     | 0.500        | 0.000      | 0.000      | 0.000      | 0.500    | 0.250                        | 0.667       | 0.000      | 0.000      | 0.750    | 0.500                        | 0.250       | 0.250       | 0.000      | 0.750    | 0.000             | 0.000      | 0.000      | 0.000      | 0.000    | 0.833     |    |  |  |  |    |
| Entering Leg            | 2            | 0          | 0          | 0          | 2        | 1                            | 8           | 0          | 0          | 9        | 6                            | 2           | 1           | 0          | 9        | 0                 | 0          | 0          | 0          | 0        | 20        |    |  |  |  |    |
| Exiting Leg             |              |            |            |            |          | 3                            |             |            |            |          | 6                            |             |             |            |          | 0                 |            |            |            |          | 11        | 20 |  |  |  |    |
| <b>Total</b>            |              |            |            |            |          | 5                            |             |            |            |          | 15                           |             |             |            |          | 9                 |            |            |            |          | 11        |    |  |  |  | 40 |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Articulated Trucks**

|                    | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street |      |      |        |       | Total |
|--------------------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------------------|------|------|--------|-------|-------|
|                    | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West         |      |      |        |       |       |
|                    | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right             | Thru | Left | U-Turn | Total |       |
| 4:00 PM            | 0          | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 0                 | 0    | 0    | 0      | 0     | 2     |
| 4:15 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |
| 4:30 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |
| 4:45 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 1     |
| <b>Total</b>       | 0          | 0    | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 0                            | 1    | 0    | 0      | 1     | 0                 | 0    | 0    | 0      | 0     | 3     |
| 5:00 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |
| 5:15 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |
| 5:30 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                 | 0    | 0    | 0      | 0     | 1     |
| 5:45 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |
| <b>Total</b>       | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                 | 0    | 0    | 0      | 0     | 1     |
| <b>Grand Total</b> | 0          | 0    | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 1                            | 1    | 0    | 0      | 2     | 0                 | 0    | 0    | 0      | 0     | 4     |
| Approach %         | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 50.0                         | 50.0 | 0.0  | 0.0    | 50.0  | 50.0                         | 50.0 | 0.0  | 0.0    | 50.0  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   |       |
| Total %            | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 25.0                         | 25.0 | 0.0  | 0.0    | 50.0  | 25.0                         | 25.0 | 0.0  | 0.0    | 50.0  | 0.0               | 0.0  | 0.0  | 0.0    | 0.0   |       |
| Exiting Leg Total  |            |      |      |        |       | 2                            |      |      |        |       |                              | 1    |      |        |       |                   |      | 0    | 1      | 4     |       |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                         | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street |       |       |        |       | Total |
|-------------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------------------|-------|-------|--------|-------|-------|
|                         | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West         |       |       |        |       |       |
|                         | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right             | Thru  | Left  | U-Turn | Total |       |
| 4:00 PM                 | 0          | 0     | 0     | 0      | 0     | 1                            | 0     | 0     | 0      | 1     | 0                            | 1     | 0     | 0      | 1     | 0                 | 0     | 0     | 0      | 0     | 2     |
| 4:15 PM                 | 0          | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     |
| 4:30 PM                 | 0          | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     |
| 4:45 PM                 | 0          | 0     | 0     | 0      | 0     | 0                            | 1     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1     |
| <b>Total Volume</b>     | 0          | 0     | 0     | 0      | 0     | 1                            | 1     | 0     | 0      | 2     | 0                            | 1     | 0     | 0      | 1     | 0                 | 0     | 0     | 0      | 0     | 3     |
| <b>% Approach Total</b> | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 50.0                         | 50.0  | 0.0   | 0.0    | 50.0  | 0.0                          | 100.0 | 0.0   | 0.0    | 50.0  | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   |       |
| PHF                     | 0.000      | 0.000 | 0.000 | 0.000  | 0.000 | 0.250                        | 0.250 | 0.000 | 0.000  | 0.500 | 0.000                        | 0.250 | 0.000 | 0.000  | 0.250 | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.375 |
| Entering Leg            | 0          | 0     | 0     | 0      | 0     | 1                            | 1     | 0     | 0      | 2     | 0                            | 1     | 0     | 0      | 1     | 0                 | 0     | 0     | 0      | 0     | 3     |
| Exiting Leg             |            |       |       |        |       | 2                            |       |       |        |       |                              | 0     |       |        |       |                   |       | 1     | 3      |       |       |
| <b>Total</b>            |            |       |       |        |       | 2                            |       |       |        |       |                              | 2     |       |        |       |                   |       | 1     | 1      | 6     |       |



PDI File #: 228414 A  
 Location: N: Elm Street S: Washington Street (Route 16)  
 Location: E: Washington Street (Route 16) W: Washington Street  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

|                   | Elm Street |      |      |        |       |       |       | Washington Street (Route 16) |       |      |        |       |       |       | Washington Street (Route 16) |       |      |        |       |       |       | Washington Street |      |      |        |       |       |       | Total |
|-------------------|------------|------|------|--------|-------|-------|-------|------------------------------|-------|------|--------|-------|-------|-------|------------------------------|-------|------|--------|-------|-------|-------|-------------------|------|------|--------|-------|-------|-------|-------|
|                   | from North |      |      |        |       |       |       | from East                    |       |      |        |       |       |       | from South                   |       |      |        |       |       |       | from West         |      |      |        |       |       |       |       |
|                   | Right      | Thru | Left | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | Left | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru  | Left | U-Turn | CW-WB | CW-EB | Total | Right             | Thru | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 4:00 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1     | 0    | 0      | 0     | 0     | 0     | 0                            | 1     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 1     |       |       |
| 4:15 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |       |       |
| 4:30 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |       |       |
| 4:45 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |       |       |
| Total             | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1     | 0    | 0      | 0     | 0     | 0     | 1                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 1     |       |       |
| 5:00 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |       |       |
| 5:15 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1     | 0    | 0      | 0     | 0     | 0     | 1                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 1     |       |       |
| 5:30 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 0     |       |       |
| 5:45 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0                            | 1     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 1     |       |       |
| Total             | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1     | 0    | 0      | 0     | 0     | 1     | 0                            | 1     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 2     |       |       |
| Grand Total       | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 2     | 0    | 0      | 0     | 0     | 2     | 0                            | 1     | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0    | 0      | 0     | 3     |       |       |
| Approach %        | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   |       | 0.0                          | 100.0 | 0.0  | 0.0    | 0.0   | 0.0   |       | 0.0                          | 100.0 | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0               | 0.0  | 0.0  | 0.0    |       |       |       |       |
| Total %           | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   |       | 0.0                          | 66.7  | 0.0  | 0.0    | 0.0   | 0.0   | 66.7  | 0.0                          | 33.3  | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0               | 0.0  | 0.0  | 0.0    |       |       |       |       |
| Exiting Leg Total | 1          |      |      |        |       |       |       | 0                            |       |      |        |       |       |       | 0                            |       |      |        |       |       |       | 2                 |      |      |        |       |       |       | 3     |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Elm Street |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street |       |       |        |       |       |       | Total |
|------------------|------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------------------|-------|-------|--------|-------|-------|-------|-------|
|                  | from North |       |       |        |       |       |       | from East                    |       |       |        |       |       |       | from South                   |       |       |        |       |       |       | from West         |       |       |        |       |       |       |       |
|                  | Right      | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru  | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 5:00 PM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 0     |       |       |
| 5:00 PM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 1     | 0     | 0      | 0     | 0     | 1     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 1     |       |       |
| 5:15 PM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 0     |       |       |
| 5:30 PM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 0     |       |       |
| 5:45 PM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 1     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 1     |       |       |
| Total Volume     | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 1     | 0     | 0      | 0     | 0     | 1     | 0                            | 1     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 2     |       |       |
| % Approach Total | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   |       | 0.0                          | 100.0 | 0.0   | 0.0    | 0.0   | 0.0   |       | 0.0                          | 100.0 | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0               | 0.0   | 0.0   | 0.0    |       |       |       |       |
| PHF              | 0.000      | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000                        | 0.250 | 0.000 | 0.000  | 0.000 | 0.250 | 0.000 | 0.250                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.250 | 0.000 | 0.000             | 0.000 | 0.000 | 0.000  | 0.500 |       |       |       |
| Entering Leg     | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 1     | 0     | 0      | 0     | 0     | 1     | 0                            | 1     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 2     |       |       |       |
| Exiting Leg      | 1          |       |       |        |       |       |       | 0                            |       |       |        |       |       |       | 0                            |       |       |        |       |       |       | 1                 |       |       |        |       |       |       | 2     |
| Total            | 1          |       |       |        |       |       |       | 1                            |       |       |        |       |       |       | 1                            |       |       |        |       |       |       | 1                 |       |       |        |       |       |       | 4     |

PDI File #: **228414 A**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington Street (Route 16) W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Pedestrians**

|                   | Elm Street |          |          |          |           |          |           | Washington Street (Route 16) |          |          |          |          |          |          | Washington Street (Route 16) |          |          |          |          |          |          | Washington Street |          |          |          |          |          |          | Total     |
|-------------------|------------|----------|----------|----------|-----------|----------|-----------|------------------------------|----------|----------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|-----------|
|                   | from North |          |          |          |           |          |           | from East                    |          |          |          |          |          |          | from South                   |          |          |          |          |          |          | from West         |          |          |          |          |          |          |           |
|                   | Right      | Thru     | Left     | U-Turn   | CW-EB     | CW-WB    | Total     | Right                        | Thru     | Left     | U-Turn   | CW-SB    | CW-NB    | Total    | Right                        | Thru     | Left     | U-Turn   | CW-WB    | CW-EB    | Total    | Right             | Thru     | Left     | U-Turn   | CW-NB    | CW-SB    | Total    |           |
| 4:00 PM           | 0          | 0        | 0        | 0        | 3         | 1        | 4         | 0                            | 0        | 0        | 0        | 1        | 3        | 4        | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 8         |
| 4:15 PM           | 0          | 0        | 0        | 0        | 2         | 3        | 5         | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 5         |
| 4:30 PM           | 0          | 0        | 0        | 0        | 2         | 1        | 3         | 0                            | 0        | 0        | 0        | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 4         |
| 4:45 PM           | 0          | 0        | 0        | 0        | 1         | 2        | 3         | 0                            | 0        | 0        | 0        | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 4         |
| <b>Total</b>      | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>8</b>  | <b>7</b> | <b>15</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b> | <b>3</b> | <b>6</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>21</b> |
| 5:00 PM           | 0          | 0        | 0        | 0        | 1         | 1        | 2         | 0                            | 0        | 0        | 0        | 0        | 5        | 5        | 0                            | 0        | 0        | 0        | 1        | 0        | 1        | 0                 | 0        | 0        | 0        | 1        | 0        | 1        | 9         |
| 5:15 PM           | 0          | 0        | 0        | 0        | 2         | 1        | 3         | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 3         |
| 5:30 PM           | 0          | 0        | 0        | 0        | 4         | 2        | 6         | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1        | 1        | 7         |
| 5:45 PM           | 0          | 0        | 0        | 0        | 4         | 1        | 5         | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 5         |
| <b>Total</b>      | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>11</b> | <b>5</b> | <b>16</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>5</b> | <b>5</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b> | <b>1</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>1</b> | <b>2</b> | <b>24</b> |
| Grand Total       | 0          | 0        | 0        | 0        | 19        | 12       | 31        | 0                            | 0        | 0        | 0        | 3        | 8        | 11       | 0                            | 0        | 0        | 0        | 1        | 0        | 1        | 0                 | 0        | 0        | 0        | 1        | 1        | 2        | 45        |
| Approach %        | 0          | 0        | 0        | 0        | 61.3      | 38.7     |           | 0                            | 0        | 0        | 0        | 27.3     | 72.7     |          | 0                            | 0        | 0        | 0        | 100      | 0        |          | 0                 | 0        | 0        | 0        | 50       | 50       |          |           |
| Total %           | 0          | 0        | 0        | 0        | 42.2      | 26.7     | 68.9      | 0                            | 0        | 0        | 0        | 6.67     | 17.8     | 24.4     | 0                            | 0        | 0        | 0        | 2.22     | 0        | 2.22     | 0                 | 0        | 0        | 0        | 2.22     | 2.22     | 4.44     |           |
| Exiting Leg Total | 31         |          |          |          |           |          |           | 11                           |          |          |          |          |          |          | 1                            |          |          |          |          |          |          | 2                 |          |          |          |          |          |          | 45        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Elm Street |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street |       |       |        |       |       |       | Total |       |
|------------------|------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------------------|-------|-------|--------|-------|-------|-------|-------|-------|
|                  | from North |       |       |        |       |       |       | from East                    |       |       |        |       |       |       | from South                   |       |       |        |       |       |       | from West         |       |       |        |       |       |       |       |       |
|                  | Right      | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru  | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | Left  | U-Turn | CW-NB | CW-SB | Total |       |       |
| 5:00 PM          | 0          | 0     | 0     | 0      | 1     | 1     | 2     | 0                            | 0     | 0     | 0      | 0     | 5     | 5     | 0                            | 0     | 0     | 0      | 1     | 0     | 1     | 0                 | 0     | 0     | 0      | 1     | 0     | 1     | 9     |       |
| 5:15 PM          | 0          | 0     | 0     | 0      | 2     | 1     | 3     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 3     |       |
| 5:30 PM          | 0          | 0     | 0     | 0      | 4     | 2     | 6     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 1     | 1     | 7     |       |
| 5:45 PM          | 0          | 0     | 0     | 0      | 4     | 1     | 5     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 5     |       |
| Total Volume     | 0          | 0     | 0     | 0      | 11    | 5     | 16    | 0                            | 0     | 0     | 0      | 0     | 5     | 5     | 0                            | 0     | 0     | 0      | 1     | 0     | 1     | 0                 | 0     | 0     | 0      | 1     | 1     | 2     | 24    |       |
| % Approach Total | 0.0        | 0.0   | 0.0   | 0.0    | 68.8  | 31.3  |       | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 100.0 |       | 0.0                          | 0.0   | 0.0   | 0.0    | 100.0 | 0.0   |       | 0.0               | 0.0   | 0.0   | 0.0    | 50.0  | 50.0  |       |       |       |
| PHF              | 0.000      | 0.000 | 0.000 | 0.000  | 0.688 | 0.625 | 0.667 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.250 | 0.250 |       | 0.000                        | 0.000 | 0.000 | 0.000  | 0.250 | 0.000 | 0.250 |                   | 0.000 | 0.000 | 0.000  | 0.000 | 0.250 | 0.250 | 0.500 | 0.667 |
| Entering Leg     | 0          | 0     | 0     | 0      | 11    | 5     | 16    | 0                            | 0     | 0     | 0      | 0     | 5     | 5     | 0                            | 0     | 0     | 0      | 1     | 0     | 1     | 0                 | 0     | 0     | 0      | 1     | 1     | 2     | 24    |       |
| Exiting Leg      | 16         |       |       |        |       |       |       | 5                            |       |       |        |       |       |       | 1                            |       |       |        |       |       |       | 2                 |       |       |        |       |       |       | 24    |       |
| Total            | 32         |       |       |        |       |       |       | 10                           |       |       |        |       |       |       | 2                            |       |       |        |       |       |       | 4                 |       |       |        |       |       |       | 48    |       |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Cherry Street |            |          |            | Washington Street (Route 16) |            |          |            | Washington Street (Route 16) |            |          |            | Total       |
|-------------------|---------------|------------|----------|------------|------------------------------|------------|----------|------------|------------------------------|------------|----------|------------|-------------|
|                   | from North    |            |          |            | from East                    |            |          |            | from West                    |            |          |            |             |
|                   | Right         | Left       | U-Turn   | Total      | Right                        | Thru       | U-Turn   | Total      | Thru                         | Left       | U-Turn   | Total      |             |
| 7:00 AM           | 22            | 51         | 0        | 73         | 9                            | 61         | 0        | 70         | 77                           | 17         | 0        | 94         | 237         |
| 7:15 AM           | 17            | 66         | 0        | 83         | 19                           | 90         | 0        | 109        | 96                           | 30         | 0        | 126        | 318         |
| 7:30 AM           | 28            | 83         | 0        | 111        | 35                           | 97         | 0        | 132        | 124                          | 38         | 1        | 163        | 406         |
| 7:45 AM           | 22            | 83         | 0        | 105        | 42                           | 122        | 0        | 164        | 111                          | 43         | 0        | 154        | 423         |
| <b>Total</b>      | <b>89</b>     | <b>283</b> | <b>0</b> | <b>372</b> | <b>105</b>                   | <b>370</b> | <b>0</b> | <b>475</b> | <b>408</b>                   | <b>128</b> | <b>1</b> | <b>537</b> | <b>1384</b> |
| 8:00 AM           | 21            | 69         | 0        | 90         | 39                           | 102        | 0        | 141        | 121                          | 16         | 0        | 137        | 368         |
| 8:15 AM           | 15            | 106        | 0        | 121        | 42                           | 108        | 0        | 150        | 120                          | 22         | 0        | 142        | 413         |
| 8:30 AM           | 8             | 98         | 0        | 106        | 54                           | 101        | 0        | 155        | 106                          | 30         | 0        | 136        | 397         |
| 8:45 AM           | 17            | 113        | 0        | 130        | 44                           | 104        | 0        | 148        | 123                          | 28         | 1        | 152        | 430         |
| <b>Total</b>      | <b>61</b>     | <b>386</b> | <b>0</b> | <b>447</b> | <b>179</b>                   | <b>415</b> | <b>0</b> | <b>594</b> | <b>470</b>                   | <b>96</b>  | <b>1</b> | <b>567</b> | <b>1608</b> |
| Grand Total       | 150           | 669        | 0        | 819        | 284                          | 785        | 0        | 1069       | 878                          | 224        | 2        | 1104       | 2992        |
| Approach %        | 18.3          | 81.7       | 0.0      |            | 26.6                         | 73.4       | 0.0      |            | 79.5                         | 20.3       | 0.2      |            |             |
| Total %           | 5.0           | 22.4       | 0.0      | 27.4       | 9.5                          | 26.2       | 0.0      | 35.7       | 29.3                         | 7.5        | 0.1      | 36.9       |             |
| Exiting Leg Total |               |            |          | 508        |                              |            |          | 1547       |                              |            |          | 937        | 2992        |
| Cars              | 145           | 654        | 0        | 799        | 278                          | 751        | 0        | 1029       | 845                          | 222        | 2        | 1069       | 2897        |
| % Cars            | 96.7          | 97.8       | 0.0      | 97.6       | 97.9                         | 95.7       | 0.0      | 96.3       | 96.2                         | 99.1       | 100.0    | 96.8       | 96.8        |
| Exiting Leg Total |               |            |          | 500        |                              |            |          | 1499       |                              |            |          | 898        | 2897        |
| Heavy Vehicles    | 5             | 15         | 0        | 20         | 6                            | 34         | 0        | 40         | 33                           | 2          | 0        | 35         | 95          |
| % Heavy Vehicles  | 3.3           | 2.2        | 0.0      | 2.4        | 2.1                          | 4.3        | 0.0      | 3.7        | 3.8                          | 0.9        | 0.0      | 3.2        | 3.2         |
| Exiting Leg Total |               |            |          | 8          |                              |            |          | 48         |                              |            |          | 39         | 95          |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                    | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                    | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 7:30 AM            | 28            | 83    | 0      | 111   | 35                           | 97    | 0      | 132   | 124                          | 38    | 1      | 163   | 406   |
| 7:45 AM            | 22            | 83    | 0      | 105   | 42                           | 122   | 0      | 164   | 111                          | 43    | 0      | 154   | 423   |
| 8:00 AM            | 21            | 69    | 0      | 90    | 39                           | 102   | 0      | 141   | 121                          | 16    | 0      | 137   | 368   |
| 8:15 AM            | 15            | 106   | 0      | 121   | 42                           | 108   | 0      | 150   | 120                          | 22    | 0      | 142   | 413   |
| Total Volume       | 86            | 341   | 0      | 427   | 158                          | 429   | 0      | 587   | 476                          | 119   | 1      | 596   | 1610  |
| % Approach Total   | 20.1          | 79.9  | 0.0    |       | 26.9                         | 73.1  | 0.0    |       | 79.9                         | 20.0  | 0.2    |       |       |
| PHF                | 0.768         | 0.804 | 0.000  | 0.882 | 0.940                        | 0.879 | 0.000  | 0.895 | 0.960                        | 0.692 | 0.250  | 0.914 | 0.952 |
| Cars               | 84            | 333   | 0      | 417   | 155                          | 411   | 0      | 566   | 462                          | 118   | 1      | 581   | 1564  |
| Cars %             | 97.7          | 97.7  | 0.0    | 97.7  | 98.1                         | 95.8  | 0.0    | 96.4  | 97.1                         | 99.2  | 100.0  | 97.5  | 97.1  |
| Heavy Vehicles     | 2             | 8     | 0      | 10    | 3                            | 18    | 0      | 21    | 14                           | 1     | 0      | 15    | 46    |
| Heavy Vehicles %   | 2.3           | 2.3   | 0.0    | 2.3   | 1.9                          | 4.2   | 0.0    | 3.6   | 2.9                          | 0.8   | 0.0    | 2.5   | 2.9   |
| Cars Enter Leg     | 84            | 333   | 0      | 417   | 155                          | 411   | 0      | 566   | 462                          | 118   | 1      | 581   | 1564  |
| Heavy Enter Leg    | 2             | 8     | 0      | 10    | 3                            | 18    | 0      | 21    | 14                           | 1     | 0      | 15    | 46    |
| Total Entering Leg | 86            | 341   | 0      | 427   | 158                          | 429   | 0      | 587   | 476                          | 119   | 1      | 596   | 1610  |
| Cars Exiting Leg   |               |       |        | 273   |                              |       |        | 795   |                              |       |        | 496   | 1564  |
| Heavy Exiting Leg  |               |       |        | 4     |                              |       |        | 22    |                              |       |        | 20    | 46    |
| Total Exiting Leg  |               |       |        | 277   |                              |       |        | 817   |                              |       |        | 516   | 1610  |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars**

|                   | Cherry Street |            |          |            | Washington Street (Route 16) |            |          |            | Washington Street (Route 16) |            |          |            | Total       |
|-------------------|---------------|------------|----------|------------|------------------------------|------------|----------|------------|------------------------------|------------|----------|------------|-------------|
|                   | from North    |            |          |            | from East                    |            |          |            | from West                    |            |          |            |             |
|                   | Right         | Left       | U-Turn   | Total      | Right                        | Thru       | U-Turn   | Total      | Thru                         | Left       | U-Turn   | Total      |             |
| 7:00 AM           | 21            | 50         | 0        | 71         | 9                            | 58         | 0        | 67         | 71                           | 17         | 0        | 88         | 226         |
| 7:15 AM           | 16            | 63         | 0        | 79         | 18                           | 85         | 0        | 103        | 92                           | 30         | 0        | 122        | 304         |
| 7:30 AM           | 28            | 83         | 0        | 111        | 35                           | 91         | 0        | 126        | 119                          | 37         | 1        | 157        | 394         |
| 7:45 AM           | 22            | 81         | 0        | 103        | 41                           | 118        | 0        | 159        | 108                          | 43         | 0        | 151        | 413         |
| <b>Total</b>      | <b>87</b>     | <b>277</b> | <b>0</b> | <b>364</b> | <b>103</b>                   | <b>352</b> | <b>0</b> | <b>455</b> | <b>390</b>                   | <b>127</b> | <b>1</b> | <b>518</b> | <b>1337</b> |
| 8:00 AM           | 19            | 65         | 0        | 84         | 39                           | 97         | 0        | 136        | 120                          | 16         | 0        | 136        | 356         |
| 8:15 AM           | 15            | 104        | 0        | 119        | 40                           | 105        | 0        | 145        | 115                          | 22         | 0        | 137        | 401         |
| 8:30 AM           | 8             | 95         | 0        | 103        | 54                           | 97         | 0        | 151        | 101                          | 29         | 0        | 130        | 384         |
| 8:45 AM           | 16            | 113        | 0        | 129        | 42                           | 100        | 0        | 142        | 119                          | 28         | 1        | 148        | 419         |
| <b>Total</b>      | <b>58</b>     | <b>377</b> | <b>0</b> | <b>435</b> | <b>175</b>                   | <b>399</b> | <b>0</b> | <b>574</b> | <b>455</b>                   | <b>95</b>  | <b>1</b> | <b>551</b> | <b>1560</b> |
| Grand Total       | 145           | 654        | 0        | 799        | 278                          | 751        | 0        | 1029       | 845                          | 222        | 2        | 1069       | 2897        |
| Approach %        | 18.1          | 81.9       | 0.0      |            | 27.0                         | 73.0       | 0.0      |            | 79.0                         | 20.8       | 0.2      |            |             |
| Total %           | 5.0           | 22.6       | 0.0      | 27.6       | 9.6                          | 25.9       | 0.0      | 35.5       | 29.2                         | 7.7        | 0.1      | 36.9       |             |
| Exiting Leg Total |               |            |          | 500        |                              |            |          | 1499       |                              |            |          | 898        | 2897        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Cherry Street |       |        |            | Washington Street (Route 16) |       |        |             | Washington Street (Route 16) |       |        |             | Total       |
|------------------|---------------|-------|--------|------------|------------------------------|-------|--------|-------------|------------------------------|-------|--------|-------------|-------------|
|                  | from North    |       |        |            | from East                    |       |        |             | from West                    |       |        |             |             |
|                  | Right         | Left  | U-Turn | Total      | Right                        | Thru  | U-Turn | Total       | Thru                         | Left  | U-Turn | Total       |             |
| 7:30 AM          | 28            | 83    | 0      | 111        | 35                           | 91    | 0      | 126         | 119                          | 37    | 1      | 157         | 394         |
| 7:45 AM          | 22            | 81    | 0      | 103        | 41                           | 118   | 0      | 159         | 108                          | 43    | 0      | 151         | 413         |
| 8:00 AM          | 19            | 65    | 0      | 84         | 39                           | 97    | 0      | 136         | 120                          | 16    | 0      | 136         | 356         |
| 8:15 AM          | 15            | 104   | 0      | 119        | 40                           | 105   | 0      | 145         | 115                          | 22    | 0      | 137         | 401         |
| Total Volume     | 84            | 333   | 0      | 417        | 155                          | 411   | 0      | 566         | 462                          | 118   | 1      | 581         | 1564        |
| % Approach Total | 20.1          | 79.9  | 0.0    |            | 27.4                         | 72.6  | 0.0    |             | 79.5                         | 20.3  | 0.2    |             |             |
| PHF              | 0.750         | 0.800 | 0.000  | 0.876      | 0.945                        | 0.871 | 0.000  | 0.890       | 0.963                        | 0.686 | 0.250  | 0.925       | 0.947       |
| Entering Leg     | 84            | 333   | 0      | 417        | 155                          | 411   | 0      | 566         | 462                          | 118   | 1      | 581         | 1564        |
| Exiting Leg      |               |       |        | 273        |                              |       |        | 795         |                              |       |        | 496         | 1564        |
| <b>Total</b>     |               |       |        | <b>690</b> |                              |       |        | <b>1361</b> |                              |       |        | <b>1077</b> | <b>3128</b> |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Cherry Street |          |          |           | Washington Street (Route 16) |           |          |           | Washington Street (Route 16) |          |          |           | Total     |
|--------------------|---------------|----------|----------|-----------|------------------------------|-----------|----------|-----------|------------------------------|----------|----------|-----------|-----------|
|                    | from North    |          |          |           | from East                    |           |          |           | from West                    |          |          |           |           |
|                    | Right         | Left     | U-Turn   | Total     | Right                        | Thru      | U-Turn   | Total     | Thru                         | Left     | U-Turn   | Total     |           |
| 7:00 AM            | 1             | 1        | 0        | 2         | 0                            | 3         | 0        | 3         | 6                            | 0        | 0        | 6         | 11        |
| 7:15 AM            | 1             | 3        | 0        | 4         | 1                            | 5         | 0        | 6         | 4                            | 0        | 0        | 4         | 14        |
| 7:30 AM            | 0             | 0        | 0        | 0         | 0                            | 6         | 0        | 6         | 5                            | 1        | 0        | 6         | 12        |
| 7:45 AM            | 0             | 2        | 0        | 2         | 1                            | 4         | 0        | 5         | 3                            | 0        | 0        | 3         | 10        |
| <b>Total</b>       | <b>2</b>      | <b>6</b> | <b>0</b> | <b>8</b>  | <b>2</b>                     | <b>18</b> | <b>0</b> | <b>20</b> | <b>18</b>                    | <b>1</b> | <b>0</b> | <b>19</b> | <b>47</b> |
| 8:00 AM            | 2             | 4        | 0        | 6         | 0                            | 5         | 0        | 5         | 1                            | 0        | 0        | 1         | 12        |
| 8:15 AM            | 0             | 2        | 0        | 2         | 2                            | 3         | 0        | 5         | 5                            | 0        | 0        | 5         | 12        |
| 8:30 AM            | 0             | 3        | 0        | 3         | 0                            | 4         | 0        | 4         | 5                            | 1        | 0        | 6         | 13        |
| 8:45 AM            | 1             | 0        | 0        | 1         | 2                            | 4         | 0        | 6         | 4                            | 0        | 0        | 4         | 11        |
| <b>Total</b>       | <b>3</b>      | <b>9</b> | <b>0</b> | <b>12</b> | <b>4</b>                     | <b>16</b> | <b>0</b> | <b>20</b> | <b>15</b>                    | <b>1</b> | <b>0</b> | <b>16</b> | <b>48</b> |
| Grand Total        | 5             | 15       | 0        | 20        | 6                            | 34        | 0        | 40        | 33                           | 2        | 0        | 35        | 95        |
| Approach %         | 25.0          | 75.0     | 0.0      |           | 15.0                         | 85.0      | 0.0      |           | 94.3                         | 5.7      | 0.0      |           |           |
| Total %            | 5.3           | 15.8     | 0.0      | 21.1      | 6.3                          | 35.8      | 0.0      | 42.1      | 34.7                         | 2.1      | 0.0      | 36.8      |           |
| Exiting Leg Total  |               |          |          | 8         |                              |           |          | 48        |                              |          |          | 39        | 95        |
| Buses              | 2             | 2        | 0        | 4         | 1                            | 9         | 0        | 10        | 6                            | 0        | 0        | 6         | 20        |
| % Buses            | 40.0          | 13.3     | 0.0      | 20.0      | 16.7                         | 26.5      | 0.0      | 25.0      | 18.2                         | 0.0      | 0.0      | 17.1      | 21.1      |
| Exiting Leg Total  |               |          |          | 1         |                              |           |          | 8         |                              |          |          | 11        | 20        |
| Single-Unit Trucks | 3             | 13       | 0        | 16        | 4                            | 20        | 0        | 24        | 24                           | 2        | 0        | 26        | 66        |
| % Single-Unit      | 60.0          | 86.7     | 0.0      | 80.0      | 66.7                         | 58.8      | 0.0      | 60.0      | 72.7                         | 100.0    | 0.0      | 74.3      | 69.5      |
| Exiting Leg Total  |               |          |          | 6         |                              |           |          | 37        |                              |          |          | 23        | 66        |
| Articulated Trucks | 0             | 0        | 0        | 0         | 1                            | 5         | 0        | 6         | 3                            | 0        | 0        | 3         | 9         |
| % Articulated      | 0.0           | 0.0      | 0.0      | 0.0       | 16.7                         | 14.7      | 0.0      | 15.0      | 9.1                          | 0.0      | 0.0      | 8.6       | 9.5       |
| Exiting Leg Total  |               |          |          | 1         |                              |           |          | 3         |                              |          |          | 5         | 9         |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                           | Cherry Street |          |          |           | Washington Street (Route 16) |           |          |           | Washington Street (Route 16) |          |          |           | Total     |
|---------------------------|---------------|----------|----------|-----------|------------------------------|-----------|----------|-----------|------------------------------|----------|----------|-----------|-----------|
|                           | from North    |          |          |           | from East                    |           |          |           | from West                    |          |          |           |           |
|                           | Right         | Left     | U-Turn   | Total     | Right                        | Thru      | U-Turn   | Total     | Thru                         | Left     | U-Turn   | Total     |           |
| 7:15 AM                   |               |          |          |           |                              |           |          |           |                              |          |          |           |           |
| 7:15 AM                   | 1             | 3        | 0        | 4         | 1                            | 5         | 0        | 6         | 4                            | 0        | 0        | 4         | 14        |
| 7:30 AM                   | 0             | 0        | 0        | 0         | 0                            | 6         | 0        | 6         | 5                            | 1        | 0        | 6         | 12        |
| 7:45 AM                   | 0             | 2        | 0        | 2         | 1                            | 4         | 0        | 5         | 3                            | 0        | 0        | 3         | 10        |
| 8:00 AM                   | 2             | 4        | 0        | 6         | 0                            | 5         | 0        | 5         | 1                            | 0        | 0        | 1         | 12        |
| <b>Total Volume</b>       | <b>3</b>      | <b>9</b> | <b>0</b> | <b>12</b> | <b>2</b>                     | <b>20</b> | <b>0</b> | <b>22</b> | <b>13</b>                    | <b>1</b> | <b>0</b> | <b>14</b> | <b>48</b> |
| % Approach Total          | 25.0          | 75.0     | 0.0      |           | 9.1                          | 90.9      | 0.0      |           | 92.9                         | 7.1      | 0.0      |           |           |
| PHF                       | 0.375         | 0.563    | 0.000    | 0.500     | 0.500                        | 0.833     | 0.000    | 0.917     | 0.650                        | 0.250    | 0.000    | 0.583     | 0.857     |
| Buses                     | 2             | 1        | 0        | 3         | 1                            | 6         | 0        | 7         | 2                            | 0        | 0        | 2         | 12        |
| Buses %                   | 66.7          | 11.1     | 0.0      | 25.0      | 50.0                         | 30.0      | 0.0      | 31.8      | 15.4                         | 0.0      | 0.0      | 14.3      | 25.0      |
| Single-Unit Trucks        | 1             | 8        | 0        | 9         | 0                            | 11        | 0        | 11        | 10                           | 1        | 0        | 11        | 31        |
| Single-Unit %             | 33.3          | 88.9     | 0.0      | 75.0      | 0.0                          | 55.0      | 0.0      | 50.0      | 76.9                         | 100.0    | 0.0      | 78.6      | 64.6      |
| Articulated Trucks        | 0             | 0        | 0        | 0         | 1                            | 3         | 0        | 4         | 1                            | 0        | 0        | 1         | 5         |
| Articulated %             | 0.0           | 0.0      | 0.0      | 0.0       | 50.0                         | 15.0      | 0.0      | 18.2      | 7.7                          | 0.0      | 0.0      | 7.1       | 10.4      |
| Buses                     | 2             | 1        | 0        | 3         | 1                            | 6         | 0        | 7         | 2                            | 0        | 0        | 2         | 12        |
| Single-Unit Trucks        | 1             | 8        | 0        | 9         | 0                            | 11        | 0        | 11        | 10                           | 1        | 0        | 11        | 31        |
| Articulated Trucks        | 0             | 0        | 0        | 0         | 1                            | 3         | 0        | 4         | 1                            | 0        | 0        | 1         | 5         |
| <b>Total Entering Leg</b> | <b>3</b>      | <b>9</b> | <b>0</b> | <b>12</b> | <b>2</b>                     | <b>20</b> | <b>0</b> | <b>22</b> | <b>13</b>                    | <b>1</b> | <b>0</b> | <b>14</b> | <b>48</b> |
| Buses                     |               |          |          | 1         |                              |           |          | 3         |                              |          |          | 8         | 12        |
| Single-Unit Trucks        |               |          |          | 1         |                              |           |          | 18        |                              |          |          | 12        | 31        |
| Articulated Trucks        |               |          |          | 1         |                              |           |          | 1         |                              |          |          | 3         | 5         |
| <b>Total Exiting Leg</b>  |               |          |          | <b>3</b>  |                              |           |          | <b>22</b> |                              |          |          | <b>23</b> | <b>48</b> |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Buses**

|                   | Cherry Street |          |          |          | Washington Street (Route 16) |          |          |          | Washington Street (Route 16) |          |          |          | Total     |
|-------------------|---------------|----------|----------|----------|------------------------------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|
|                   | from North    |          |          |          | from East                    |          |          |          | from West                    |          |          |          |           |
|                   | Right         | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    | Thru                         | Left     | U-Turn   | Total    |           |
| 7:00 AM           | 0             | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 1                            | 0        | 0        | 1        | 2         |
| 7:15 AM           | 0             | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 1         |
| 7:30 AM           | 0             | 0        | 0        | 0        | 0                            | 4        | 0        | 4        | 2                            | 0        | 0        | 2        | 6         |
| 7:45 AM           | 0             | 0        | 0        | 0        | 1                            | 1        | 0        | 2        | 0                            | 0        | 0        | 0        | 2         |
| <b>Total</b>      | <b>0</b>      | <b>1</b> | <b>0</b> | <b>1</b> | <b>1</b>                     | <b>6</b> | <b>0</b> | <b>7</b> | <b>3</b>                     | <b>0</b> | <b>0</b> | <b>3</b> | <b>11</b> |
| 8:00 AM           | 2             | 0        | 0        | 2        | 0                            | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 3         |
| 8:15 AM           | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 1                            | 0        | 0        | 1        | 1         |
| 8:30 AM           | 0             | 1        | 0        | 1        | 0                            | 1        | 0        | 1        | 1                            | 0        | 0        | 1        | 3         |
| 8:45 AM           | 0             | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 1                            | 0        | 0        | 1        | 2         |
| <b>Total</b>      | <b>2</b>      | <b>1</b> | <b>0</b> | <b>3</b> | <b>0</b>                     | <b>3</b> | <b>0</b> | <b>3</b> | <b>3</b>                     | <b>0</b> | <b>0</b> | <b>3</b> | <b>9</b>  |
| Grand Total       | 2             | 2        | 0        | 4        | 1                            | 9        | 0        | 10       | 6                            | 0        | 0        | 6        | 20        |
| Approach %        | 50.0          | 50.0     | 0.0      |          | 10.0                         | 90.0     | 0.0      |          | 100.0                        | 0.0      | 0.0      |          |           |
| Total %           | 10.0          | 10.0     | 0.0      | 20.0     | 5.0                          | 45.0     | 0.0      | 50.0     | 30.0                         | 0.0      | 0.0      | 30.0     |           |
| Exiting Leg Total |               |          |          | 1        |                              |          |          | 8        |                              |          |          | 11       | 20        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:15 AM          | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 7:15 AM          | 0             | 1     | 0      | 1     | 0                            | 0     | 0      | 0     | 0                            | 0     | 0      | 0     | 1     |
| 7:30 AM          | 0             | 0     | 0      | 0     | 0                            | 4     | 0      | 4     | 2                            | 0     | 0      | 2     | 6     |
| 7:45 AM          | 0             | 0     | 0      | 0     | 1                            | 1     | 0      | 2     | 0                            | 0     | 0      | 0     | 2     |
| 8:00 AM          | 2             | 0     | 0      | 2     | 0                            | 1     | 0      | 1     | 0                            | 0     | 0      | 0     | 3     |
| Total Volume     | 2             | 1     | 0      | 3     | 1                            | 6     | 0      | 7     | 2                            | 0     | 0      | 2     | 12    |
| % Approach Total | 66.7          | 33.3  | 0.0    |       | 14.3                         | 85.7  | 0.0    |       | 100.0                        | 0.0   | 0.0    |       |       |
| PHF              | 0.250         | 0.250 | 0.000  | 0.375 | 0.250                        | 0.375 | 0.000  | 0.438 | 0.250                        | 0.000 | 0.000  | 0.250 | 0.500 |
| Entering Leg     | 2             | 1     | 0      | 3     | 1                            | 6     | 0      | 7     | 2                            | 0     | 0      | 2     | 12    |
| Exiting Leg      |               |       |        | 1     |                              |       |        | 3     |                              |       |        | 8     | 12    |
| Total            |               |       |        | 4     |                              |       |        | 10    |                              |       |        | 10    | 24    |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Single-Unit Trucks**

|                    | Cherry Street |           |          |           | Washington Street (Route 16) |           |          |           | Washington Street (Route 16) |          |          |           | Total     |
|--------------------|---------------|-----------|----------|-----------|------------------------------|-----------|----------|-----------|------------------------------|----------|----------|-----------|-----------|
|                    | from North    |           |          |           | from East                    |           |          |           | from West                    |          |          |           |           |
|                    | Right         | Left      | U-Turn   | Total     | Right                        | Thru      | U-Turn   | Total     | Thru                         | Left     | U-Turn   | Total     |           |
| 7:00 AM            | 1             | 1         | 0        | 2         | 0                            | 1         | 0        | 1         | 5                            | 0        | 0        | 5         | 8         |
| 7:15 AM            | 1             | 2         | 0        | 3         | 0                            | 3         | 0        | 3         | 4                            | 0        | 0        | 4         | 10        |
| 7:30 AM            | 0             | 0         | 0        | 0         | 0                            | 2         | 0        | 2         | 2                            | 1        | 0        | 3         | 5         |
| 7:45 AM            | 0             | 2         | 0        | 2         | 0                            | 2         | 0        | 2         | 3                            | 0        | 0        | 3         | 7         |
| <b>Total</b>       | <b>2</b>      | <b>5</b>  | <b>0</b> | <b>7</b>  | <b>0</b>                     | <b>8</b>  | <b>0</b> | <b>8</b>  | <b>14</b>                    | <b>1</b> | <b>0</b> | <b>15</b> | <b>30</b> |
| 8:00 AM            | 0             | 4         | 0        | 4         | 0                            | 4         | 0        | 4         | 1                            | 0        | 0        | 1         | 9         |
| 8:15 AM            | 0             | 2         | 0        | 2         | 2                            | 2         | 0        | 4         | 4                            | 0        | 0        | 4         | 10        |
| 8:30 AM            | 0             | 2         | 0        | 2         | 0                            | 3         | 0        | 3         | 3                            | 1        | 0        | 4         | 9         |
| 8:45 AM            | 1             | 0         | 0        | 1         | 2                            | 3         | 0        | 5         | 2                            | 0        | 0        | 2         | 8         |
| <b>Total</b>       | <b>1</b>      | <b>8</b>  | <b>0</b> | <b>9</b>  | <b>4</b>                     | <b>12</b> | <b>0</b> | <b>16</b> | <b>10</b>                    | <b>1</b> | <b>0</b> | <b>11</b> | <b>36</b> |
| <b>Grand Total</b> | <b>3</b>      | <b>13</b> | <b>0</b> | <b>16</b> | <b>4</b>                     | <b>20</b> | <b>0</b> | <b>24</b> | <b>24</b>                    | <b>2</b> | <b>0</b> | <b>26</b> | <b>66</b> |
| Approach %         | 18.8          | 81.3      | 0.0      |           | 16.7                         | 83.3      | 0.0      |           | 92.3                         | 7.7      | 0.0      |           |           |
| Total %            | 4.5           | 19.7      | 0.0      | 24.2      | 6.1                          | 30.3      | 0.0      | 36.4      | 36.4                         | 3.0      | 0.0      | 39.4      |           |
| Exiting Leg Total  |               |           |          | 6         |                              |           |          | 37        |                              |          |          | 23        | 66        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                         | Cherry Street |             |            |           | Washington Street (Route 16) |             |            |           | Washington Street (Route 16) |            |            |           | Total     |
|-------------------------|---------------|-------------|------------|-----------|------------------------------|-------------|------------|-----------|------------------------------|------------|------------|-----------|-----------|
|                         | from North    |             |            |           | from East                    |             |            |           | from West                    |            |            |           |           |
|                         | Right         | Left        | U-Turn     | Total     | Right                        | Thru        | U-Turn     | Total     | Thru                         | Left       | U-Turn     | Total     |           |
| 8:00 AM                 | 0             | 4           | 0          | 4         | 0                            | 4           | 0          | 4         | 1                            | 0          | 0          | 1         | 9         |
| 8:15 AM                 | 0             | 2           | 0          | 2         | 2                            | 2           | 0          | 4         | 4                            | 0          | 0          | 4         | 10        |
| 8:30 AM                 | 0             | 2           | 0          | 2         | 0                            | 3           | 0          | 3         | 3                            | 1          | 0          | 4         | 9         |
| 8:45 AM                 | 1             | 0           | 0          | 1         | 2                            | 3           | 0          | 5         | 2                            | 0          | 0          | 2         | 8         |
| <b>Total Volume</b>     | <b>1</b>      | <b>8</b>    | <b>0</b>   | <b>9</b>  | <b>4</b>                     | <b>12</b>   | <b>0</b>   | <b>16</b> | <b>10</b>                    | <b>1</b>   | <b>0</b>   | <b>11</b> | <b>36</b> |
| <b>% Approach Total</b> | <b>11.1</b>   | <b>88.9</b> | <b>0.0</b> |           | <b>25.0</b>                  | <b>75.0</b> | <b>0.0</b> |           | <b>90.9</b>                  | <b>9.1</b> | <b>0.0</b> |           |           |
| PHF                     | 0.250         | 0.500       | 0.000      | 0.563     | 0.500                        | 0.750       | 0.000      | 0.800     | 0.625                        | 0.250      | 0.000      | 0.688     | 0.900     |
| Entering Leg            | 1             | 8           | 0          | 9         | 4                            | 12          | 0          | 16        | 10                           | 1          | 0          | 11        | 36        |
| Exiting Leg             |               |             |            | 5         |                              |             |            | 18        |                              |            |            | 13        | 36        |
| <b>Total</b>            |               |             |            | <b>14</b> |                              |             |            | <b>34</b> |                              |            |            | <b>24</b> | <b>72</b> |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Articulated Trucks**

|                    | Cherry Street |          |          |          | Washington Street (Route 16) |          |          |          | Washington Street (Route 16) |          |          |          | Total    |
|--------------------|---------------|----------|----------|----------|------------------------------|----------|----------|----------|------------------------------|----------|----------|----------|----------|
|                    | from North    |          |          |          | from East                    |          |          |          | from West                    |          |          |          |          |
|                    | Right         | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    | Thru                         | Left     | U-Turn   | Total    |          |
| 7:00 AM            | 0             | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 1        |
| 7:15 AM            | 0             | 0        | 0        | 0        | 1                            | 2        | 0        | 3        | 0                            | 0        | 0        | 0        | 3        |
| 7:30 AM            | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 1                            | 0        | 0        | 1        | 1        |
| 7:45 AM            | 0             | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 1        |
| <b>Total</b>       | <b>0</b>      | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b>                     | <b>4</b> | <b>0</b> | <b>5</b> | <b>1</b>                     | <b>0</b> | <b>0</b> | <b>1</b> | <b>6</b> |
| 8:00 AM            | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        |
| 8:15 AM            | 0             | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 1        |
| 8:30 AM            | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 1                            | 0        | 0        | 1        | 1        |
| 8:45 AM            | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 1                            | 0        | 0        | 1        | 1        |
| <b>Total</b>       | <b>0</b>      | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>1</b> | <b>0</b> | <b>1</b> | <b>2</b>                     | <b>0</b> | <b>0</b> | <b>2</b> | <b>3</b> |
| <b>Grand Total</b> | <b>0</b>      | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b>                     | <b>5</b> | <b>0</b> | <b>6</b> | <b>3</b>                     | <b>0</b> | <b>0</b> | <b>3</b> | <b>9</b> |
| Approach %         | 0.0           | 0.0      | 0.0      |          | 16.7                         | 83.3     | 0.0      |          | 100.0                        | 0.0      | 0.0      |          |          |
| Total %            | 0.0           | 0.0      | 0.0      | 0.0      | 11.1                         | 55.6     | 0.0      | 66.7     | 33.3                         | 0.0      | 0.0      | 33.3     |          |
| Exiting Leg Total  |               |          |          | 1        |                              |          |          | 3        |                              |          |          | 5        | 9        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:00 AM                 | Cherry Street |            |            |          | Washington Street (Route 16) |             |            |          | Washington Street (Route 16) |            |            |          | Total     |
|-------------------------|---------------|------------|------------|----------|------------------------------|-------------|------------|----------|------------------------------|------------|------------|----------|-----------|
|                         | from North    |            |            |          | from East                    |             |            |          | from West                    |            |            |          |           |
|                         | Right         | Left       | U-Turn     | Total    | Right                        | Thru        | U-Turn     | Total    | Thru                         | Left       | U-Turn     | Total    |           |
| 7:00 AM                 | 0             | 0          | 0          | 0        | 0                            | 1           | 0          | 1        | 0                            | 0          | 0          | 0        | 1         |
| 7:15 AM                 | 0             | 0          | 0          | 0        | 1                            | 2           | 0          | 3        | 0                            | 0          | 0          | 0        | 3         |
| 7:30 AM                 | 0             | 0          | 0          | 0        | 0                            | 0           | 0          | 0        | 1                            | 0          | 0          | 1        | 1         |
| 7:45 AM                 | 0             | 0          | 0          | 0        | 0                            | 1           | 0          | 1        | 0                            | 0          | 0          | 0        | 1         |
| <b>Total Volume</b>     | <b>0</b>      | <b>0</b>   | <b>0</b>   | <b>0</b> | <b>1</b>                     | <b>4</b>    | <b>0</b>   | <b>5</b> | <b>1</b>                     | <b>0</b>   | <b>0</b>   | <b>1</b> | <b>6</b>  |
| <b>% Approach Total</b> | <b>0.0</b>    | <b>0.0</b> | <b>0.0</b> |          | <b>20.0</b>                  | <b>80.0</b> | <b>0.0</b> |          | <b>100.0</b>                 | <b>0.0</b> | <b>0.0</b> |          |           |
| PHF                     | 0.000         | 0.000      | 0.000      | 0.000    | 0.250                        | 0.500       | 0.000      | 0.417    | 0.250                        | 0.000      | 0.000      | 0.250    | 0.500     |
| Entering Leg            | 0             | 0          | 0          | 0        | 1                            | 4           | 0          | 5        | 1                            | 0          | 0          | 1        | 6         |
| Exiting Leg             |               |            |            | 1        |                              |             |            | 1        |                              |            |            | 4        | 6         |
| <b>Total</b>            |               |            |            | <b>1</b> |                              |             |            | <b>6</b> |                              |            |            | <b>5</b> | <b>12</b> |



PDI File #: 228414 B  
 Location: N: Cherry Street  
 Location: E: Washington St (Rt 16) W: Washington St (Rt 16)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

|                   | Cherry Street |      |        |       |       |       |     | Washington Street (Route 16) |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |       |
|-------------------|---------------|------|--------|-------|-------|-------|-----|------------------------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|-------|
|                   | from North    |      |        |       |       |       |     | from East                    |      |        |       |       |       | from West                    |      |        |       |       |       |       |       |
|                   | Right         | Left | U-Turn | CW-EB | CW-WB | Total |     | Right                        | Thru | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left | U-Turn | CW-NB | CW-SB | Total |       |       |
| 7:00 AM           | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0     |
| 7:15 AM           | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0     |
| 7:30 AM           | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0     |
| 7:45 AM           | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0     |
| Total             | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0     |
| 8:00 AM           | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1     |
| 8:15 AM           | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0     |
| 8:30 AM           | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0     |
| 8:45 AM           | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0     |
| Total             | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1     |
| Grand Total       | 0             | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1     |
| Approach %        | 0.0           | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0 | 0.0                          | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0                        | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 100.0 |
| Total %           | 0.0           | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0 | 0.0                          | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0                        | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0 | 100.0 |
| Exiting Leg Total | 0             |      |        |       |       |       |     | 1                            |      |        |       |       |       | 0                            |      |        |       |       |       | 1     |       |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:15 AM          | Cherry Street |       |        |       |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |       |
|------------------|---------------|-------|--------|-------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|-------|
|                  | from North    |       |        |       |       |       |       | from East                    |       |        |       |       |       | from West                    |       |        |       |       |       |       |       |
|                  | Right         | Left  | U-Turn | CW-EB | CW-WB | Total |       | Right                        | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left  | U-Turn | CW-NB | CW-SB | Total |       |       |
| 7:15 AM          | 0             | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     |
| 7:30 AM          | 0             | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     |
| 7:45 AM          | 0             | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     |
| 8:00 AM          | 0             | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 1     |
| Total Volume     | 0             | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 1     |
| % Approach Total | 0.0           | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 100.0                        | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 100.0 |
| PHF              | 0.000         | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.250                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.250 | 0.250 | 0.250 |
| Entering Leg     | 0             | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 1                            | 0     | 0      | 0     | 0     | 0     | 0     | 1     |
| Exiting Leg      | 0             |       |        |       |       |       |       | 1                            |       |        |       |       |       | 0                            |       |        |       |       |       | 1     |       |
| Total            | 0             |       |        |       |       |       |       | 1                            |       |        |       |       |       | 1                            |       |        |       |       |       | 2     |       |

PDI File #: 228414 B  
 Location: N: Cherry Street  
 Location: E: Washington St (Rt 16) W: Washington St (Rt 16)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Pedestrians**

|                   | Cherry Street |      |        |        |        |        | Washington Street (Route 16) |      |        |       |       |       | Washington Street (Route 16) |      |        |        |        |        | Total |
|-------------------|---------------|------|--------|--------|--------|--------|------------------------------|------|--------|-------|-------|-------|------------------------------|------|--------|--------|--------|--------|-------|
|                   | from North    |      |        |        |        |        | from East                    |      |        |       |       |       | from West                    |      |        |        |        |        |       |
|                   | Right         | Left | U-Turn | CW-EB  | CW-WB  | Total  | Right                        | Thru | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left | U-Turn | CW-NB  | CW-SB  | Total  |       |
| 7:00 AM           | 0             | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 0     |
| 7:15 AM           | 0             | 0    | 0      | 0      | 1      | 1      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0      | 2      | 2      | 3     |
| 7:30 AM           | 0             | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1      | 0      | 1      | 1     |
| 7:45 AM           | 0             | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 0     |
| Total             | 0             | 0    | 0      | 0      | 1      | 1      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1      | 2      | 3      | 4     |
| 8:00 AM           | 0             | 0    | 0      | 1      | 3      | 4      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 4     |
| 8:15 AM           | 0             | 0    | 0      | 0      | 4      | 4      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1      | 2      | 3      | 7     |
| 8:30 AM           | 0             | 0    | 0      | 2      | 2      | 4      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1      | 3      | 4      | 8     |
| 8:45 AM           | 0             | 0    | 0      | 3      | 0      | 3      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 3     |
| Total             | 0             | 0    | 0      | 6      | 9      | 15     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 2      | 5      | 7      | 22    |
| Grand Total       | 0             | 0    | 0      | 6      | 10     | 16     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 3      | 7      | 10     | 26    |
| Approach %        | 0             | 0    | 0      | 37.5   | 62.5   |        | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 30     | 70     |        |       |
| Total %           | 0             | 0    | 0      | 23.077 | 38.462 | 61.538 | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 11.538 | 26.923 | 38.462 |       |
| Exiting Leg Total | 16            |      |        |        |        |        | 0                            |      |        |       |       |       | 10                           |      |        |        |        |        | 26    |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 8:00 AM          | Cherry Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|---------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from North    |       |        |       |       |       | from East                    |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Right         | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 8:00 AM          | 0             | 0     | 0      | 1     | 3     | 4     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 4     |
| 8:15 AM          | 0             | 0     | 0      | 0     | 4     | 4     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 1     | 2     | 3     | 7     |
| 8:30 AM          | 0             | 0     | 0      | 2     | 2     | 4     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 1     | 3     | 4     | 8     |
| 8:45 AM          | 0             | 0     | 0      | 3     | 0     | 3     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 3     |
| Total Volume     | 0             | 0     | 0      | 6     | 9     | 15    | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 2     | 5     | 7     | 22    |
| % Approach Total | 0.0           | 0.0   | 0.0    | 40.0  | 60.0  |       | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0    | 28.6  | 71.4  |       |       |
| PHF              | 0.000         | 0.000 | 0.000  | 0.500 | 0.563 | 0.938 | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000  | 0.500 | 0.417 | 0.438 | 0.688 |
| Entering Leg     | 0             | 0     | 0      | 6     | 9     | 15    | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 2     | 5     | 7     | 22    |
| Exiting Leg      | 15            |       |        |       |       |       | 0                            |       |        |       |       |       | 7                            |       |        |       |       |       | 22    |
| Total            | 30            |       |        |       |       |       | 0                            |       |        |       |       |       | 14                           |       |        |       |       |       | 44    |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Cherry Street |            |          |            | Washington Street (Route 16) |            |          |            | Washington Street (Route 16) |            |          |            | Total       |
|-------------------|---------------|------------|----------|------------|------------------------------|------------|----------|------------|------------------------------|------------|----------|------------|-------------|
|                   | from North    |            |          |            | from East                    |            |          |            | from West                    |            |          |            |             |
|                   | Right         | Left       | U-Turn   | Total      | Right                        | Thru       | U-Turn   | Total      | Thru                         | Left       | U-Turn   | Total      |             |
| 4:00 PM           | 18            | 54         | 0        | 72         | 56                           | 112        | 0        | 168        | 95                           | 43         | 0        | 138        | 378         |
| 4:15 PM           | 31            | 58         | 0        | 89         | 65                           | 122        | 0        | 187        | 125                          | 35         | 0        | 160        | 436         |
| 4:30 PM           | 21            | 52         | 0        | 73         | 47                           | 92         | 0        | 139        | 108                          | 40         | 1        | 149        | 361         |
| 4:45 PM           | 18            | 49         | 0        | 67         | 53                           | 127        | 0        | 180        | 107                          | 26         | 0        | 133        | 380         |
| <b>Total</b>      | <b>88</b>     | <b>213</b> | <b>0</b> | <b>301</b> | <b>221</b>                   | <b>453</b> | <b>0</b> | <b>674</b> | <b>435</b>                   | <b>144</b> | <b>1</b> | <b>580</b> | <b>1555</b> |
| 5:00 PM           | 26            | 67         | 0        | 93         | 57                           | 115        | 0        | 172        | 111                          | 31         | 0        | 142        | 407         |
| 5:15 PM           | 25            | 63         | 0        | 88         | 69                           | 136        | 0        | 205        | 124                          | 43         | 0        | 167        | 460         |
| 5:30 PM           | 21            | 87         | 0        | 108        | 55                           | 115        | 0        | 170        | 132                          | 32         | 0        | 164        | 442         |
| 5:45 PM           | 29            | 64         | 0        | 93         | 52                           | 126        | 0        | 178        | 153                          | 42         | 0        | 195        | 466         |
| <b>Total</b>      | <b>101</b>    | <b>281</b> | <b>0</b> | <b>382</b> | <b>233</b>                   | <b>492</b> | <b>0</b> | <b>725</b> | <b>520</b>                   | <b>148</b> | <b>0</b> | <b>668</b> | <b>1775</b> |
| Grand Total       | 189           | 494        | 0        | 683        | 454                          | 945        | 0        | 1399       | 955                          | 292        | 1        | 1248       | 3330        |
| Approach %        | 27.7          | 72.3       | 0.0      |            | 32.5                         | 67.5       | 0.0      |            | 76.5                         | 23.4       | 0.1      |            |             |
| Total %           | 5.7           | 14.8       | 0.0      | 20.5       | 13.6                         | 28.4       | 0.0      | 42.0       | 28.7                         | 8.8        | 0.0      | 37.5       |             |
| Exiting Leg Total |               |            |          | 746        |                              |            |          | 1449       |                              |            |          | 1135       | 3330        |
| Cars              | 187           | 489        | 0        | 676        | 449                          | 923        | 0        | 1372       | 936                          | 289        | 1        | 1226       | 3274        |
| % Cars            | 98.9          | 99.0       | 0.0      | 99.0       | 98.9                         | 97.7       | 0.0      | 98.1       | 98.0                         | 99.0       | 100.0    | 98.2       | 98.3        |
| Exiting Leg Total |               |            |          | 738        |                              |            |          | 1425       |                              |            |          | 1111       | 3274        |
| Heavy Vehicles    | 2             | 5          | 0        | 7          | 5                            | 22         | 0        | 27         | 19                           | 3          | 0        | 22         | 56          |
| % Heavy Vehicles  | 1.1           | 1.0        | 0.0      | 1.0        | 1.1                          | 2.3        | 0.0      | 1.9        | 2.0                          | 1.0        | 0.0      | 1.8        | 1.7         |
| Exiting Leg Total |               |            |          | 8          |                              |            |          | 24         |                              |            |          | 24         | 56          |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 5:00 PM            | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                    | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 5:00 PM            | 26            | 67    | 0      | 93    | 57                           | 115   | 0      | 172   | 111                          | 31    | 0      | 142   | 407   |
| 5:15 PM            | 25            | 63    | 0      | 88    | 69                           | 136   | 0      | 205   | 124                          | 43    | 0      | 167   | 460   |
| 5:30 PM            | 21            | 87    | 0      | 108   | 55                           | 115   | 0      | 170   | 132                          | 32    | 0      | 164   | 442   |
| 5:45 PM            | 29            | 64    | 0      | 93    | 52                           | 126   | 0      | 178   | 153                          | 42    | 0      | 195   | 466   |
| Total Volume       | 101           | 281   | 0      | 382   | 233                          | 492   | 0      | 725   | 520                          | 148   | 0      | 668   | 1775  |
| % Approach Total   | 26.4          | 73.6  | 0.0    |       | 32.1                         | 67.9  | 0.0    |       | 77.8                         | 22.2  | 0.0    |       |       |
| PHF                | 0.871         | 0.807 | 0.000  | 0.884 | 0.844                        | 0.904 | 0.000  | 0.884 | 0.850                        | 0.860 | 0.000  | 0.856 | 0.952 |
| Cars               | 100           | 279   | 0      | 379   | 230                          | 481   | 0      | 711   | 513                          | 148   | 0      | 661   | 1751  |
| Cars %             | 99.0          | 99.3  | 0.0    | 99.2  | 98.7                         | 97.8  | 0.0    | 98.1  | 98.7                         | 100.0 | 0.0    | 99.0  | 98.6  |
| Heavy Vehicles     | 1             | 2     | 0      | 3     | 3                            | 11    | 0      | 14    | 7                            | 0     | 0      | 7     | 24    |
| Heavy Vehicles %   | 1.0           | 0.7   | 0.0    | 0.8   | 1.3                          | 2.2   | 0.0    | 1.9   | 1.3                          | 0.0   | 0.0    | 1.0   | 1.4   |
| Cars Enter Leg     | 100           | 279   | 0      | 379   | 230                          | 481   | 0      | 711   | 513                          | 148   | 0      | 661   | 1751  |
| Heavy Enter Leg    | 1             | 2     | 0      | 3     | 3                            | 11    | 0      | 14    | 7                            | 0     | 0      | 7     | 24    |
| Total Entering Leg | 101           | 281   | 0      | 382   | 233                          | 492   | 0      | 725   | 520                          | 148   | 0      | 668   | 1775  |
| Cars Exiting Leg   |               |       |        | 378   |                              |       |        | 792   |                              |       |        | 581   | 1751  |
| Heavy Exiting Leg  |               |       |        | 3     |                              |       |        | 9     |                              |       |        | 12    | 24    |
| Total Exiting Leg  |               |       |        | 381   |                              |       |        | 801   |                              |       |        | 593   | 1775  |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars**

|                   | Cherry Street |            |          |            | Washington Street (Route 16) |            |          |            | Washington Street (Route 16) |            |          |            | Total       |
|-------------------|---------------|------------|----------|------------|------------------------------|------------|----------|------------|------------------------------|------------|----------|------------|-------------|
|                   | from North    |            |          |            | from East                    |            |          |            | from West                    |            |          |            |             |
|                   | Right         | Left       | U-Turn   | Total      | Right                        | Thru       | U-Turn   | Total      | Thru                         | Left       | U-Turn   | Total      |             |
| 4:00 PM           | 17            | 54         | 0        | 71         | 56                           | 110        | 0        | 166        | 91                           | 42         | 0        | 133        | 370         |
| 4:15 PM           | 31            | 57         | 0        | 88         | 63                           | 119        | 0        | 182        | 120                          | 35         | 0        | 155        | 425         |
| 4:30 PM           | 21            | 51         | 0        | 72         | 47                           | 89         | 0        | 136        | 106                          | 39         | 1        | 146        | 354         |
| 4:45 PM           | 18            | 48         | 0        | 66         | 53                           | 124        | 0        | 177        | 106                          | 25         | 0        | 131        | 374         |
| <b>Total</b>      | <b>87</b>     | <b>210</b> | <b>0</b> | <b>297</b> | <b>219</b>                   | <b>442</b> | <b>0</b> | <b>661</b> | <b>423</b>                   | <b>141</b> | <b>1</b> | <b>565</b> | <b>1523</b> |
| 5:00 PM           | 26            | 67         | 0        | 93         | 56                           | 110        | 0        | 166        | 110                          | 31         | 0        | 141        | 400         |
| 5:15 PM           | 25            | 63         | 0        | 88         | 69                           | 134        | 0        | 203        | 122                          | 43         | 0        | 165        | 456         |
| 5:30 PM           | 21            | 85         | 0        | 106        | 55                           | 114        | 0        | 169        | 129                          | 32         | 0        | 161        | 436         |
| 5:45 PM           | 28            | 64         | 0        | 92         | 50                           | 123        | 0        | 173        | 152                          | 42         | 0        | 194        | 459         |
| <b>Total</b>      | <b>100</b>    | <b>279</b> | <b>0</b> | <b>379</b> | <b>230</b>                   | <b>481</b> | <b>0</b> | <b>711</b> | <b>513</b>                   | <b>148</b> | <b>0</b> | <b>661</b> | <b>1751</b> |
| Grand Total       | 187           | 489        | 0        | 676        | 449                          | 923        | 0        | 1372       | 936                          | 289        | 1        | 1226       | 3274        |
| Approach %        | 27.7          | 72.3       | 0.0      |            | 32.7                         | 67.3       | 0.0      |            | 76.3                         | 23.6       | 0.1      |            |             |
| Total %           | 5.7           | 14.9       | 0.0      | 20.6       | 13.7                         | 28.2       | 0.0      | 41.9       | 28.6                         | 8.8        | 0.0      | 37.4       |             |
| Exiting Leg Total |               |            |          | 738        |                              |            |          | 1425       |                              |            |          | 1111       | 3274        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 5:00 PM          | 26            | 67    | 0      | 93    | 56                           | 110   | 0      | 166   | 110                          | 31    | 0      | 141   | 400   |
| 5:15 PM          | 25            | 63    | 0      | 88    | 69                           | 134   | 0      | 203   | 122                          | 43    | 0      | 165   | 456   |
| 5:30 PM          | 21            | 85    | 0      | 106   | 55                           | 114   | 0      | 169   | 129                          | 32    | 0      | 161   | 436   |
| 5:45 PM          | 28            | 64    | 0      | 92    | 50                           | 123   | 0      | 173   | 152                          | 42    | 0      | 194   | 459   |
| Total Volume     | 100           | 279   | 0      | 379   | 230                          | 481   | 0      | 711   | 513                          | 148   | 0      | 661   | 1751  |
| % Approach Total | 26.4          | 73.6  | 0.0    |       | 32.3                         | 67.7  | 0.0    |       | 77.6                         | 22.4  | 0.0    |       |       |
| PHF              | 0.893         | 0.821 | 0.000  | 0.894 | 0.833                        | 0.897 | 0.000  | 0.876 | 0.844                        | 0.860 | 0.000  | 0.852 | 0.954 |
| Entering Leg     | 100           | 279   | 0      | 379   | 230                          | 481   | 0      | 711   | 513                          | 148   | 0      | 661   | 1751  |
| Exiting Leg      |               |       |        | 378   |                              |       |        | 792   |                              |       |        | 581   | 1751  |
| Total            |               |       |        | 757   |                              |       |        | 1503  |                              |       |        | 1242  | 3502  |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Cherry Street |          |          |          | Washington Street (Route 16) |           |          |           | Washington Street (Route 16) |          |          |           | Total     |
|--------------------|---------------|----------|----------|----------|------------------------------|-----------|----------|-----------|------------------------------|----------|----------|-----------|-----------|
|                    | from North    |          |          |          | from East                    |           |          |           | from West                    |          |          |           |           |
|                    | Right         | Left     | U-Turn   | Total    | Right                        | Thru      | U-Turn   | Total     | Thru                         | Left     | U-Turn   | Total     |           |
| 4:00 PM            | 1             | 0        | 0        | 1        | 0                            | 2         | 0        | 2         | 4                            | 1        | 0        | 5         | 8         |
| 4:15 PM            | 0             | 1        | 0        | 1        | 2                            | 3         | 0        | 5         | 5                            | 0        | 0        | 5         | 11        |
| 4:30 PM            | 0             | 1        | 0        | 1        | 0                            | 3         | 0        | 3         | 2                            | 1        | 0        | 3         | 7         |
| 4:45 PM            | 0             | 1        | 0        | 1        | 0                            | 3         | 0        | 3         | 1                            | 1        | 0        | 2         | 6         |
| <b>Total</b>       | <b>1</b>      | <b>3</b> | <b>0</b> | <b>4</b> | <b>2</b>                     | <b>11</b> | <b>0</b> | <b>13</b> | <b>12</b>                    | <b>3</b> | <b>0</b> | <b>15</b> | <b>32</b> |
| 5:00 PM            | 0             | 0        | 0        | 0        | 1                            | 5         | 0        | 6         | 1                            | 0        | 0        | 1         | 7         |
| 5:15 PM            | 0             | 0        | 0        | 0        | 0                            | 2         | 0        | 2         | 2                            | 0        | 0        | 2         | 4         |
| 5:30 PM            | 0             | 2        | 0        | 2        | 0                            | 1         | 0        | 1         | 3                            | 0        | 0        | 3         | 6         |
| 5:45 PM            | 1             | 0        | 0        | 1        | 2                            | 3         | 0        | 5         | 1                            | 0        | 0        | 1         | 7         |
| <b>Total</b>       | <b>1</b>      | <b>2</b> | <b>0</b> | <b>3</b> | <b>3</b>                     | <b>11</b> | <b>0</b> | <b>14</b> | <b>7</b>                     | <b>0</b> | <b>0</b> | <b>7</b>  | <b>24</b> |
| Grand Total        | 2             | 5        | 0        | 7        | 5                            | 22        | 0        | 27        | 19                           | 3        | 0        | 22        | 56        |
| Approach %         | 28.6          | 71.4     | 0.0      |          | 18.5                         | 81.5      | 0.0      |           | 86.4                         | 13.6     | 0.0      |           |           |
| Total %            | 3.6           | 8.9      | 0.0      | 12.5     | 8.9                          | 39.3      | 0.0      | 48.2      | 33.9                         | 5.4      | 0.0      | 39.3      |           |
| Exiting Leg Total  |               |          |          | 8        |                              |           |          | 24        |                              |          |          | 24        | 56        |
| Buses              | 0             | 0        | 0        | 0        | 0                            | 8         | 0        | 8         | 8                            | 0        | 0        | 8         | 16        |
| % Buses            | 0.0           | 0.0      | 0.0      | 0.0      | 0.0                          | 36.4      | 0.0      | 29.6      | 42.1                         | 0.0      | 0.0      | 36.4      | 28.6      |
| Exiting Leg Total  |               |          |          | 0        |                              |           |          | 8         |                              |          |          | 8         | 16        |
| Single-Unit Trucks | 1             | 3        | 0        | 4        | 5                            | 13        | 0        | 18        | 9                            | 3        | 0        | 12        | 34        |
| % Single-Unit      | 50.0          | 60.0     | 0.0      | 57.1     | 100.0                        | 59.1      | 0.0      | 66.7      | 47.4                         | 100.0    | 0.0      | 54.5      | 60.7      |
| Exiting Leg Total  |               |          |          | 8        |                              |           |          | 12        |                              |          |          | 14        | 34        |
| Articulated Trucks | 1             | 2        | 0        | 3        | 0                            | 1         | 0        | 1         | 2                            | 0        | 0        | 2         | 6         |
| % Articulated      | 50.0          | 40.0     | 0.0      | 42.9     | 0.0                          | 4.5       | 0.0      | 3.7       | 10.5                         | 0.0      | 0.0      | 9.1       | 10.7      |
| Exiting Leg Total  |               |          |          | 0        |                              |           |          | 4         |                              |          |          | 2         | 6         |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM            | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                    | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 4:00 PM            | 1             | 0     | 0      | 1     | 0                            | 2     | 0      | 2     | 4                            | 1     | 0      | 5     | 8     |
| 4:15 PM            | 0             | 1     | 0      | 1     | 2                            | 3     | 0      | 5     | 5                            | 0     | 0      | 5     | 11    |
| 4:30 PM            | 0             | 1     | 0      | 1     | 0                            | 3     | 0      | 3     | 2                            | 1     | 0      | 3     | 7     |
| 4:45 PM            | 0             | 1     | 0      | 1     | 0                            | 3     | 0      | 3     | 1                            | 1     | 0      | 2     | 6     |
| Total Volume       | 1             | 3     | 0      | 4     | 2                            | 11    | 0      | 13    | 12                           | 3     | 0      | 15    | 32    |
| % Approach Total   | 25.0          | 75.0  | 0.0    |       | 15.4                         | 84.6  | 0.0    |       | 80.0                         | 20.0  | 0.0    |       |       |
| PHF                | 0.250         | 0.750 | 0.000  | 1.000 | 0.250                        | 0.917 | 0.000  | 0.650 | 0.600                        | 0.750 | 0.000  | 0.750 | 0.727 |
| Buses              | 0             | 0     | 0      | 0     | 0                            | 5     | 0      | 5     | 7                            | 0     | 0      | 7     | 12    |
| Buses %            | 0.0           | 0.0   | 0.0    | 0.0   | 0.0                          | 45.5  | 0.0    | 38.5  | 58.3                         | 0.0   | 0.0    | 46.7  | 37.5  |
| Single-Unit Trucks | 0             | 1     | 0      | 1     | 2                            | 5     | 0      | 7     | 4                            | 3     | 0      | 7     | 15    |
| Single-Unit %      | 0.0           | 33.3  | 0.0    | 25.0  | 100.0                        | 45.5  | 0.0    | 53.8  | 33.3                         | 100.0 | 0.0    | 46.7  | 46.9  |
| Articulated Trucks | 1             | 2     | 0      | 3     | 0                            | 1     | 0      | 1     | 1                            | 0     | 0      | 1     | 5     |
| Articulated %      | 100.0         | 66.7  | 0.0    | 75.0  | 0.0                          | 9.1   | 0.0    | 7.7   | 8.3                          | 0.0   | 0.0    | 6.7   | 15.6  |
| Buses              | 0             | 0     | 0      | 0     | 0                            | 5     | 0      | 5     | 7                            | 0     | 0      | 7     | 12    |
| Single-Unit Trucks | 0             | 1     | 0      | 1     | 2                            | 5     | 0      | 7     | 4                            | 3     | 0      | 7     | 15    |
| Articulated Trucks | 1             | 2     | 0      | 3     | 0                            | 1     | 0      | 1     | 1                            | 0     | 0      | 1     | 5     |
| Total Entering Leg | 1             | 3     | 0      | 4     | 2                            | 11    | 0      | 13    | 12                           | 3     | 0      | 15    | 32    |
| Buses              |               |       |        | 0     |                              |       |        | 7     |                              |       |        | 5     | 12    |
| Single-Unit Trucks |               |       |        | 5     |                              |       |        | 5     |                              |       |        | 5     | 15    |
| Articulated Trucks |               |       |        | 0     |                              |       |        | 3     |                              |       |        | 2     | 5     |
| Total Exiting Leg  |               |       |        | 5     |                              |       |        | 15    |                              |       |        | 12    | 32    |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Buses**

|                    | Cherry Street |          |          |          | Washington Street (Route 16) |          |          |          | Washington Street (Route 16) |          |          |          | Total     |
|--------------------|---------------|----------|----------|----------|------------------------------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|
|                    | from North    |          |          |          | from East                    |          |          |          | from West                    |          |          |          |           |
|                    | Right         | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    | Thru                         | Left     | U-Turn   | Total    |           |
| 4:00 PM            | 0             | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 1         |
| 4:15 PM            | 0             | 0        | 0        | 0        | 0                            | 2        | 0        | 2        | 5                            | 0        | 0        | 5        | 7         |
| 4:30 PM            | 0             | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 1                            | 0        | 0        | 1        | 2         |
| 4:45 PM            | 0             | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 1                            | 0        | 0        | 1        | 2         |
| <b>Total</b>       | <b>0</b>      | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>5</b> | <b>0</b> | <b>5</b> | <b>7</b>                     | <b>0</b> | <b>0</b> | <b>7</b> | <b>12</b> |
| 5:00 PM            | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         |
| 5:15 PM            | 0             | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 1                            | 0        | 0        | 1        | 2         |
| 5:30 PM            | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         |
| 5:45 PM            | 0             | 0        | 0        | 0        | 0                            | 2        | 0        | 2        | 0                            | 0        | 0        | 0        | 2         |
| <b>Total</b>       | <b>0</b>      | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>3</b> | <b>0</b> | <b>3</b> | <b>1</b>                     | <b>0</b> | <b>0</b> | <b>1</b> | <b>4</b>  |
| <b>Grand Total</b> | <b>0</b>      | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>8</b> | <b>0</b> | <b>8</b> | <b>8</b>                     | <b>0</b> | <b>0</b> | <b>8</b> | <b>16</b> |
| Approach %         | 0.0           | 0.0      | 0.0      |          | 0.0                          | 100.0    | 0.0      |          | 100.0                        | 0.0      | 0.0      |          |           |
| Total %            | 0.0           | 0.0      | 0.0      | 0.0      | 0.0                          | 50.0     | 0.0      | 50.0     | 50.0                         | 0.0      | 0.0      | 50.0     |           |
| Exiting Leg Total  |               |          |          | 0        |                              |          |          | 8        |                              |          |          | 8        | 16        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM                 | Cherry Street |            |            |          | Washington Street (Route 16) |              |            |           | Washington Street (Route 16) |            |            |           | Total     |
|-------------------------|---------------|------------|------------|----------|------------------------------|--------------|------------|-----------|------------------------------|------------|------------|-----------|-----------|
|                         | from North    |            |            |          | from East                    |              |            |           | from West                    |            |            |           |           |
|                         | Right         | Left       | U-Turn     | Total    | Right                        | Thru         | U-Turn     | Total     | Thru                         | Left       | U-Turn     | Total     |           |
| 4:00 PM                 | 0             | 0          | 0          | 0        | 0                            | 1            | 0          | 1         | 0                            | 0          | 0          | 0         | 1         |
| 4:15 PM                 | 0             | 0          | 0          | 0        | 0                            | 2            | 0          | 2         | 5                            | 0          | 0          | 5         | 7         |
| 4:30 PM                 | 0             | 0          | 0          | 0        | 0                            | 1            | 0          | 1         | 1                            | 0          | 0          | 1         | 2         |
| 4:45 PM                 | 0             | 0          | 0          | 0        | 0                            | 1            | 0          | 1         | 1                            | 0          | 0          | 1         | 2         |
| <b>Total Volume</b>     | <b>0</b>      | <b>0</b>   | <b>0</b>   | <b>0</b> | <b>0</b>                     | <b>5</b>     | <b>0</b>   | <b>5</b>  | <b>7</b>                     | <b>0</b>   | <b>0</b>   | <b>7</b>  | <b>12</b> |
| <b>% Approach Total</b> | <b>0.0</b>    | <b>0.0</b> | <b>0.0</b> |          | <b>0.0</b>                   | <b>100.0</b> | <b>0.0</b> |           | <b>100.0</b>                 | <b>0.0</b> | <b>0.0</b> |           |           |
| PHF                     | 0.000         | 0.000      | 0.000      | 0.000    | 0.000                        | 0.625        | 0.000      | 0.625     | 0.350                        | 0.000      | 0.000      | 0.350     | 0.429     |
| Entering Leg            | 0             | 0          | 0          | 0        | 0                            | 5            | 0          | 5         | 7                            | 0          | 0          | 7         | 12        |
| Exiting Leg             |               |            |            | 0        |                              |              |            | 7         |                              |            |            | 5         | 12        |
| <b>Total</b>            |               |            |            | <b>0</b> |                              |              |            | <b>12</b> |                              |            |            | <b>12</b> | <b>24</b> |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Single-Unit Trucks**

|                    | Cherry Street |          |          |          | Washington Street (Route 16) |           |          |           | Washington Street (Route 16) |          |          |           | Total     |
|--------------------|---------------|----------|----------|----------|------------------------------|-----------|----------|-----------|------------------------------|----------|----------|-----------|-----------|
|                    | from North    |          |          |          | from East                    |           |          |           | from West                    |          |          |           |           |
|                    | Right         | Left     | U-Turn   | Total    | Right                        | Thru      | U-Turn   | Total     | Thru                         | Left     | U-Turn   | Total     |           |
| 4:00 PM            | 0             | 0        | 0        | 0        | 0                            | 1         | 0        | 1         | 3                            | 1        | 0        | 4         | 5         |
| 4:15 PM            | 0             | 0        | 0        | 0        | 2                            | 1         | 0        | 3         | 0                            | 0        | 0        | 0         | 3         |
| 4:30 PM            | 0             | 0        | 0        | 0        | 0                            | 2         | 0        | 2         | 1                            | 1        | 0        | 2         | 4         |
| 4:45 PM            | 0             | 1        | 0        | 1        | 0                            | 1         | 0        | 1         | 0                            | 1        | 0        | 1         | 3         |
| <b>Total</b>       | <b>0</b>      | <b>1</b> | <b>0</b> | <b>1</b> | <b>2</b>                     | <b>5</b>  | <b>0</b> | <b>7</b>  | <b>4</b>                     | <b>3</b> | <b>0</b> | <b>7</b>  | <b>15</b> |
| 5:00 PM            | 0             | 0        | 0        | 0        | 1                            | 5         | 0        | 6         | 1                            | 0        | 0        | 1         | 7         |
| 5:15 PM            | 0             | 0        | 0        | 0        | 0                            | 1         | 0        | 1         | 1                            | 0        | 0        | 1         | 2         |
| 5:30 PM            | 0             | 2        | 0        | 2        | 0                            | 1         | 0        | 1         | 2                            | 0        | 0        | 2         | 5         |
| 5:45 PM            | 1             | 0        | 0        | 1        | 2                            | 1         | 0        | 3         | 1                            | 0        | 0        | 1         | 5         |
| <b>Total</b>       | <b>1</b>      | <b>2</b> | <b>0</b> | <b>3</b> | <b>3</b>                     | <b>8</b>  | <b>0</b> | <b>11</b> | <b>5</b>                     | <b>0</b> | <b>0</b> | <b>5</b>  | <b>19</b> |
| <b>Grand Total</b> | <b>1</b>      | <b>3</b> | <b>0</b> | <b>4</b> | <b>5</b>                     | <b>13</b> | <b>0</b> | <b>18</b> | <b>9</b>                     | <b>3</b> | <b>0</b> | <b>12</b> | <b>34</b> |
| Approach %         | 25.0          | 75.0     | 0.0      |          | 27.8                         | 72.2      | 0.0      |           | 75.0                         | 25.0     | 0.0      |           |           |
| Total %            | 2.9           | 8.8      | 0.0      | 11.8     | 14.7                         | 38.2      | 0.0      | 52.9      | 26.5                         | 8.8      | 0.0      | 35.3      |           |
| Exiting Leg Total  |               |          |          | 8        |                              |           |          | 12        |                              |          |          | 14        | 34        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 5:00 PM                 | Cherry Street |             |            |          | Washington Street (Route 16) |             |            |           | Washington Street (Route 16) |            |            |           | Total     |
|-------------------------|---------------|-------------|------------|----------|------------------------------|-------------|------------|-----------|------------------------------|------------|------------|-----------|-----------|
|                         | from North    |             |            |          | from East                    |             |            |           | from West                    |            |            |           |           |
|                         | Right         | Left        | U-Turn     | Total    | Right                        | Thru        | U-Turn     | Total     | Thru                         | Left       | U-Turn     | Total     |           |
| 5:00 PM                 | 0             | 0           | 0          | 0        | 1                            | 5           | 0          | 6         | 1                            | 0          | 0          | 1         | 7         |
| 5:15 PM                 | 0             | 0           | 0          | 0        | 0                            | 1           | 0          | 1         | 1                            | 0          | 0          | 1         | 2         |
| 5:30 PM                 | 0             | 2           | 0          | 2        | 0                            | 1           | 0          | 1         | 2                            | 0          | 0          | 2         | 5         |
| 5:45 PM                 | 1             | 0           | 0          | 1        | 2                            | 1           | 0          | 3         | 1                            | 0          | 0          | 1         | 5         |
| <b>Total Volume</b>     | <b>1</b>      | <b>2</b>    | <b>0</b>   | <b>3</b> | <b>3</b>                     | <b>8</b>    | <b>0</b>   | <b>11</b> | <b>5</b>                     | <b>0</b>   | <b>0</b>   | <b>5</b>  | <b>19</b> |
| <b>% Approach Total</b> | <b>33.3</b>   | <b>66.7</b> | <b>0.0</b> |          | <b>27.3</b>                  | <b>72.7</b> | <b>0.0</b> |           | <b>100.0</b>                 | <b>0.0</b> | <b>0.0</b> |           |           |
| PHF                     | 0.250         | 0.250       | 0.000      | 0.375    | 0.375                        | 0.400       | 0.000      | 0.458     | 0.625                        | 0.000      | 0.000      | 0.625     | 0.679     |
| Entering Leg            | 1             | 2           | 0          | 3        | 3                            | 8           | 0          | 11        | 5                            | 0          | 0          | 5         | 19        |
| Exiting Leg             |               |             |            | 3        |                              |             |            | 7         |                              |            |            | 9         | 19        |
| <b>Total</b>            |               |             |            | <b>6</b> |                              |             |            | <b>18</b> |                              |            |            | <b>14</b> | <b>38</b> |

PDI File #: **228414 B**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Articulated Trucks**

|                    | Cherry Street |          |          |          | Washington Street (Route 16) |          |          |          | Washington Street (Route 16) |          |          |          | Total    |          |
|--------------------|---------------|----------|----------|----------|------------------------------|----------|----------|----------|------------------------------|----------|----------|----------|----------|----------|
|                    | from North    |          |          |          | from East                    |          |          |          | from West                    |          |          |          |          |          |
|                    | Right         | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    | Thru                         | Left     | U-Turn   | Total    |          |          |
| 4:00 PM            | 1             | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0                            | 1        | 0        | 0        | 1        | 2        |
| 4:15 PM            | 0             | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 1        |
| 4:30 PM            | 0             | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 1        |
| 4:45 PM            | 0             | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 1                            | 0        | 0        | 0        | 0        | 1        |
| <b>Total</b>       | <b>1</b>      | <b>2</b> | <b>0</b> | <b>3</b> | <b>0</b>                     | <b>1</b> | <b>0</b> | <b>1</b> | <b>1</b>                     | <b>1</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>5</b> |
| 5:00 PM            | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        |
| 5:15 PM            | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        |
| 5:30 PM            | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0                            | 1        | 0        | 0        | 1        | 1        |
| 5:45 PM            | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        |
| <b>Total</b>       | <b>0</b>      | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>1</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>1</b> |
| <b>Grand Total</b> | <b>1</b>      | <b>2</b> | <b>0</b> | <b>3</b> | <b>0</b>                     | <b>1</b> | <b>0</b> | <b>1</b> | <b>2</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>6</b> |
| Approach %         | 33.3          | 66.7     | 0.0      |          | 0.0                          | 100.0    | 0.0      |          | 100.0                        | 0.0      | 0.0      |          |          |          |
| Total %            | 16.7          | 33.3     | 0.0      | 50.0     | 0.0                          | 16.7     | 0.0      | 16.7     | 33.3                         | 0.0      | 0.0      |          | 33.3     |          |
| Exiting Leg Total  |               |          |          | 0        |                              |          |          | 4        |                              |          |          |          | 2        | 6        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM                 | Cherry Street |             |            |          | Washington Street (Route 16) |              |            |          | Washington Street (Route 16) |            |            |          | Total     |   |
|-------------------------|---------------|-------------|------------|----------|------------------------------|--------------|------------|----------|------------------------------|------------|------------|----------|-----------|---|
|                         | from North    |             |            |          | from East                    |              |            |          | from West                    |            |            |          |           |   |
|                         | Right         | Left        | U-Turn     | Total    | Right                        | Thru         | U-Turn     | Total    | Thru                         | Left       | U-Turn     | Total    |           |   |
| 4:00 PM                 | 1             | 0           | 0          | 1        | 0                            | 0            | 0          | 0        | 0                            | 1          | 0          | 0        | 1         | 2 |
| 4:15 PM                 | 0             | 1           | 0          | 1        | 0                            | 0            | 0          | 0        | 0                            | 0          | 0          | 0        | 0         | 1 |
| 4:30 PM                 | 0             | 1           | 0          | 1        | 0                            | 0            | 0          | 0        | 0                            | 0          | 0          | 0        | 0         | 1 |
| 4:45 PM                 | 0             | 0           | 0          | 0        | 0                            | 1            | 0          | 1        | 1                            | 0          | 0          | 0        | 0         | 1 |
| <b>Total Volume</b>     | <b>1</b>      | <b>2</b>    | <b>0</b>   | <b>3</b> | <b>0</b>                     | <b>1</b>     | <b>0</b>   | <b>1</b> | <b>1</b>                     | <b>0</b>   | <b>0</b>   | <b>1</b> | <b>5</b>  |   |
| <b>% Approach Total</b> | <b>33.3</b>   | <b>66.7</b> | <b>0.0</b> |          | <b>0.0</b>                   | <b>100.0</b> | <b>0.0</b> |          | <b>100.0</b>                 | <b>0.0</b> | <b>0.0</b> |          |           |   |
| PHF                     | 0.250         | 0.500       | 0.000      | 0.750    | 0.000                        | 0.250        | 0.000      | 0.250    | 0.250                        | 0.000      | 0.000      | 0.250    | 0.625     |   |
| Entering Leg            | 1             | 2           | 0          | 3        | 0                            | 1            | 0          | 1        | 1                            | 0          | 0          | 1        | 5         |   |
| Exiting Leg             |               |             |            | 0        |                              |              |            | 3        |                              |            |            | 2        | 5         |   |
| <b>Total</b>            |               |             |            | <b>3</b> |                              |              |            | <b>4</b> |                              |            |            | <b>3</b> | <b>10</b> |   |



PDI File #: 228414 B  
 Location: N: Cherry Street  
 Location: E: Washington St (Rt 16) W: Washington St (Rt 16)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

|                   | Cherry Street |      |        |       |       |       |  | Washington Street (Route 16) |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |     |   |
|-------------------|---------------|------|--------|-------|-------|-------|--|------------------------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|-----|---|
|                   | from North    |      |        |       |       |       |  | from East                    |      |        |       |       |       | from West                    |      |        |       |       |       |       |     |   |
|                   | Right         | Left | U-Turn | CW-EB | CW-WB | Total |  | Right                        | Thru | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left | U-Turn | CW-NB | CW-SB | Total |       |     |   |
| 4:00 PM           | 0             | 0    | 0      | 0     | 1     | 1     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 1 |
| 4:15 PM           | 0             | 0    | 0      | 0     | 1     | 1     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 1 |
| 4:30 PM           | 0             | 0    | 0      | 0     | 0     | 0     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 0 |
| 4:45 PM           | 0             | 0    | 0      | 0     | 1     | 1     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 1 |
| Total             | 0             | 0    | 0      | 0     | 3     | 3     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 3 |
| 5:00 PM           | 0             | 0    | 0      | 0     | 0     | 0     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 0 |
| 5:15 PM           | 0             | 0    | 0      | 0     | 0     | 0     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 0 |
| 5:30 PM           | 0             | 0    | 0      | 0     | 0     | 0     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 0 |
| 5:45 PM           | 0             | 0    | 0      | 0     | 0     | 0     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 0 |
| Total             | 0             | 0    | 0      | 0     | 0     | 0     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 0 |
| Grand Total       | 0             | 0    | 0      | 0     | 3     | 3     |  | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   | 3 |
| Approach %        | 0.0           | 0.0  | 0.0    | 0.0   | 100.0 | 100.0 |  | 0.0                          | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0 |   |
| Total %           | 0.0           | 0.0  | 0.0    | 0.0   | 100.0 | 100.0 |  | 0.0                          | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0 |   |
| Exiting Leg Total | 3             |      |        |       |       |       |  | 0                            |      |        |       |       |       | 0                            |      |        |       |       |       | 3     |     |   |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Cherry Street |       |        |       |       |       |  | Washington Street (Route 16) |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |       |       |
|------------------|---------------|-------|--------|-------|-------|-------|--|------------------------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|-------|-------|
|                  | from North    |       |        |       |       |       |  | from East                    |       |        |       |       |       | from West                    |       |        |       |       |       |       |       |       |
|                  | Right         | Left  | U-Turn | CW-EB | CW-WB | Total |  | Right                        | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left  | U-Turn | CW-NB | CW-SB | Total |       |       |       |
| 4:00 PM          | 0             | 0     | 0      | 0     | 1     | 1     |  | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 1     |
| 4:15 PM          | 0             | 0     | 0      | 0     | 1     | 1     |  | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 1     |
| 4:30 PM          | 0             | 0     | 0      | 0     | 0     | 0     |  | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 0     |
| 4:45 PM          | 0             | 0     | 0      | 0     | 1     | 1     |  | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 1     |
| Total Volume     | 0             | 0     | 0      | 0     | 3     | 3     |  | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 3     |
| % Approach Total | 0.0           | 0.0   | 0.0    | 0.0   | 100.0 | 100.0 |  | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |       |
| PHF              | 0.000         | 0.000 | 0.000  | 0.000 | 0.750 | 0.750 |  | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.750 |
| Entering Leg     | 0             | 0     | 0      | 0     | 3     | 3     |  | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 3     |
| Exiting Leg      | 3             |       |        |       |       |       |  | 0                            |       |        |       |       |       | 0                            |       |        |       |       |       | 3     |       |       |
| Total            | 6             |       |        |       |       |       |  | 0                            |       |        |       |       |       | 0                            |       |        |       |       |       | 6     |       |       |

PDI File #: 228414 B  
 Location: N: Cherry Street  
 Location: E: Washington St (Rt 16) W: Washington St (Rt 16)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Pedestrians**

|                   | Cherry Street |      |        |        |        |        | Washington Street (Route 16) |      |        |       |       |       | Washington Street (Route 16) |      |        |        |        |        | Total |   |
|-------------------|---------------|------|--------|--------|--------|--------|------------------------------|------|--------|-------|-------|-------|------------------------------|------|--------|--------|--------|--------|-------|---|
|                   | from North    |      |        |        |        |        | from East                    |      |        |       |       |       | from West                    |      |        |        |        |        |       |   |
|                   | Right         | Left | U-Turn | CW-EB  | CW-WB  | Total  | Right                        | Thru | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left | U-Turn | CW-NB  | CW-SB  | Total  |       |   |
| 4:00 PM           | 0             | 0    | 0      | 3      | 1      | 4      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0      | 0      | 1      | 1     | 5 |
| 4:15 PM           | 0             | 0    | 0      | 0      | 4      | 4      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 0     | 4 |
| 4:30 PM           | 0             | 0    | 0      | 1      | 7      | 8      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 2      | 0      | 2      | 10    |   |
| 4:45 PM           | 0             | 0    | 0      | 3      | 3      | 6      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0      | 1      | 1      | 7     |   |
| Total             | 0             | 0    | 0      | 7      | 15     | 22     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 2      | 2      | 4      | 26    |   |
| 5:00 PM           | 0             | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1      | 0      | 1      | 1     |   |
| 5:15 PM           | 0             | 0    | 0      | 1      | 4      | 5      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 3      | 3      | 6      | 11    |   |
| 5:30 PM           | 0             | 0    | 0      | 0      | 2      | 2      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0      | 1      | 1      | 3     |   |
| 5:45 PM           | 0             | 0    | 0      | 0      | 1      | 1      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 1     |   |
| Total             | 0             | 0    | 0      | 1      | 7      | 8      | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 4      | 4      | 8      | 16    |   |
| Grand Total       | 0             | 0    | 0      | 8      | 22     | 30     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 6      | 6      | 12     | 42    |   |
| Approach %        | 0             | 0    | 0      | 26.667 | 73.333 |        | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 50     | 50     |        |       |   |
| Total %           | 0             | 0    | 0      | 19.048 | 52.381 | 71.429 | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 14.286 | 14.286 | 28.571 |       |   |
| Exiting Leg Total | 30            |      |        |        |        |        | 0                            |      |        |       |       |       | 12                           |      |        |        |        |        | 42    |   |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Cherry Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|---------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from North    |       |        |       |       |       | from East                    |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Right         | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 4:30 PM          | 0             | 0     | 0      | 1     | 7     | 8     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 2     | 0     | 2     | 10    |
| 4:45 PM          | 0             | 0     | 0      | 3     | 3     | 6     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 1     | 1     | 7     |
| 5:00 PM          | 0             | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 1     | 0     | 1     | 1     |
| 5:15 PM          | 0             | 0     | 0      | 1     | 4     | 5     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 3     | 3     | 6     | 11    |
| Total Volume     | 0             | 0     | 0      | 5     | 14    | 19    | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 6     | 4     | 10    | 29    |
| % Approach Total | 0.0           | 0.0   | 0.0    | 26.3  | 73.7  |       | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0    | 60.0  | 40.0  |       |       |
| PHF              | 0.000         | 0.000 | 0.000  | 0.417 | 0.500 | 0.594 | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000  | 0.500 | 0.333 | 0.417 | 0.659 |
| Entering Leg     | 0             | 0     | 0      | 5     | 14    | 19    | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 6     | 4     | 10    | 29    |
| Exiting Leg      | 19            |       |        |       |       |       | 0                            |       |        |       |       |       | 10                           |       |        |       |       |       | 29    |
| Total            | 38            |       |        |       |       |       | 0                            |       |        |       |       |       | 20                           |       |        |       |       |       | 58    |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Washington Street (Route 16) |           |          |            | Highland Street |            |          |            | Washington Street (Route 16) |            |          |            | Total       |
|-------------------|------------------------------|-----------|----------|------------|-----------------|------------|----------|------------|------------------------------|------------|----------|------------|-------------|
|                   | from East                    |           |          |            | from South      |            |          |            | from West                    |            |          |            |             |
|                   | Thru                         | Left      | U-Turn   | Total      | Right           | Left       | U-Turn   | Total      | Right                        | Thru       | U-Turn   | Total      |             |
| 7:00 AM           | 60                           | 8         | 0        | 68         | 2               | 10         | 0        | 12         | 27                           | 99         | 0        | 126        | 206         |
| 7:15 AM           | 93                           | 9         | 0        | 102        | 24              | 16         | 0        | 40         | 40                           | 123        | 0        | 163        | 305         |
| 7:30 AM           | 94                           | 18        | 0        | 112        | 51              | 35         | 0        | 86         | 40                           | 161        | 0        | 201        | 399         |
| 7:45 AM           | 126                          | 29        | 0        | 155        | 47              | 42         | 0        | 89         | 46                           | 157        | 0        | 203        | 447         |
| <b>Total</b>      | <b>373</b>                   | <b>64</b> | <b>0</b> | <b>437</b> | <b>124</b>      | <b>103</b> | <b>0</b> | <b>227</b> | <b>153</b>                   | <b>540</b> | <b>0</b> | <b>693</b> | <b>1357</b> |
| 8:00 AM           | 101                          | 31        | 0        | 132        | 31              | 37         | 0        | 68         | 40                           | 151        | 0        | 191        | 391         |
| 8:15 AM           | 114                          | 17        | 0        | 131        | 46              | 39         | 0        | 85         | 60                           | 163        | 0        | 223        | 439         |
| 8:30 AM           | 99                           | 25        | 0        | 124        | 39              | 52         | 0        | 91         | 63                           | 140        | 0        | 203        | 418         |
| 8:45 AM           | 99                           | 20        | 0        | 119        | 47              | 49         | 0        | 96         | 62                           | 176        | 0        | 238        | 453         |
| <b>Total</b>      | <b>413</b>                   | <b>93</b> | <b>0</b> | <b>506</b> | <b>163</b>      | <b>177</b> | <b>0</b> | <b>340</b> | <b>225</b>                   | <b>630</b> | <b>0</b> | <b>855</b> | <b>1701</b> |
| Grand Total       | 786                          | 157       | 0        | 943        | 287             | 280        | 0        | 567        | 378                          | 1170       | 0        | 1548       | 3058        |
| Approach %        | 83.4                         | 16.6      | 0.0      |            | 50.6            | 49.4       | 0.0      |            | 24.4                         | 75.6       | 0.0      |            |             |
| Total %           | 25.7                         | 5.1       | 0.0      | 30.8       | 9.4             | 9.2        | 0.0      | 18.5       | 12.4                         | 38.3       | 0.0      | 50.6       |             |
| Exiting Leg Total |                              |           |          | 1457       |                 |            |          | 535        |                              |            |          | 1066       | 3058        |
| Cars              | 749                          | 155       | 0        | 904        | 282             | 275        | 0        | 557        | 367                          | 1132       | 0        | 1499       | 2960        |
| % Cars            | 95.3                         | 98.7      | 0.0      | 95.9       | 98.3            | 98.2       | 0.0      | 98.2       | 97.1                         | 96.8       | 0.0      | 96.8       | 96.8        |
| Exiting Leg Total |                              |           |          | 1414       |                 |            |          | 522        |                              |            |          | 1024       | 2960        |
| Heavy Vehicles    | 37                           | 2         | 0        | 39         | 5               | 5          | 0        | 10         | 11                           | 38         | 0        | 49         | 98          |
| % Heavy Vehicles  | 4.7                          | 1.3       | 0.0      | 4.1        | 1.7             | 1.8        | 0.0      | 1.8        | 2.9                          | 3.2        | 0.0      | 3.2        | 3.2         |
| Exiting Leg Total |                              |           |          | 43         |                 |            |          | 13         |                              |            |          | 42         | 98          |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 8:00 AM            | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                    | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 8:00 AM            | 101                          | 31    | 0      | 132   | 31              | 37    | 0      | 68    | 40                           | 151   | 0      | 191   | 391   |
| 8:15 AM            | 114                          | 17    | 0      | 131   | 46              | 39    | 0      | 85    | 60                           | 163   | 0      | 223   | 439   |
| 8:30 AM            | 99                           | 25    | 0      | 124   | 39              | 52    | 0      | 91    | 63                           | 140   | 0      | 203   | 418   |
| 8:45 AM            | 99                           | 20    | 0      | 119   | 47              | 49    | 0      | 96    | 62                           | 176   | 0      | 238   | 453   |
| Total Volume       | 413                          | 93    | 0      | 506   | 163             | 177   | 0      | 340   | 225                          | 630   | 0      | 855   | 1701  |
| % Approach Total   | 81.6                         | 18.4  | 0.0    |       | 47.9            | 52.1  | 0.0    |       | 26.3                         | 73.7  | 0.0    |       |       |
| PHF                | 0.906                        | 0.750 | 0.000  | 0.958 | 0.867           | 0.851 | 0.000  | 0.885 | 0.893                        | 0.895 | 0.000  | 0.898 | 0.939 |
| Cars               | 396                          | 92    | 0      | 488   | 162             | 173   | 0      | 335   | 218                          | 613   | 0      | 831   | 1654  |
| Cars %             | 95.9                         | 98.9  | 0.0    | 96.4  | 99.4            | 97.7  | 0.0    | 98.5  | 96.9                         | 97.3  | 0.0    | 97.2  | 97.2  |
| Heavy Vehicles     | 17                           | 1     | 0      | 18    | 1               | 4     | 0      | 5     | 7                            | 17    | 0      | 24    | 47    |
| Heavy Vehicles %   | 4.1                          | 1.1   | 0.0    | 3.6   | 0.6             | 2.3   | 0.0    | 1.5   | 3.1                          | 2.7   | 0.0    | 2.8   | 2.8   |
| Cars Enter Leg     | 396                          | 92    | 0      | 488   | 162             | 173   | 0      | 335   | 218                          | 613   | 0      | 831   | 1654  |
| Heavy Enter Leg    | 17                           | 1     | 0      | 18    | 1               | 4     | 0      | 5     | 7                            | 17    | 0      | 24    | 47    |
| Total Entering Leg | 413                          | 93    | 0      | 506   | 163             | 177   | 0      | 340   | 225                          | 630   | 0      | 855   | 1701  |
| Cars Exiting Leg   |                              |       |        | 775   |                 |       |        | 310   |                              |       |        | 569   | 1654  |
| Heavy Exiting Leg  |                              |       |        | 18    |                 |       |        | 8     |                              |       |        | 21    | 47    |
| Total Exiting Leg  |                              |       |        | 793   |                 |       |        | 318   |                              |       |        | 590   | 1701  |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars**

|                   | Washington Street (Route 16) |           |          |            | Highland Street |            |          |            | Washington Street (Route 16) |            |          |            | Total       |
|-------------------|------------------------------|-----------|----------|------------|-----------------|------------|----------|------------|------------------------------|------------|----------|------------|-------------|
|                   | from East                    |           |          |            | from South      |            |          |            | from West                    |            |          |            |             |
|                   | Thru                         | Left      | U-Turn   | Total      | Right           | Left       | U-Turn   | Total      | Right                        | Thru       | U-Turn   | Total      |             |
| 7:00 AM           | 57                           | 8         | 0        | 65         | 2               | 10         | 0        | 12         | 26                           | 93         | 0        | 119        | 196         |
| 7:15 AM           | 86                           | 9         | 0        | 95         | 24              | 16         | 0        | 40         | 38                           | 117        | 0        | 155        | 290         |
| 7:30 AM           | 88                           | 17        | 0        | 105        | 48              | 35         | 0        | 83         | 40                           | 156        | 0        | 196        | 384         |
| 7:45 AM           | 122                          | 29        | 0        | 151        | 46              | 41         | 0        | 87         | 45                           | 153        | 0        | 198        | 436         |
| <b>Total</b>      | <b>353</b>                   | <b>63</b> | <b>0</b> | <b>416</b> | <b>120</b>      | <b>102</b> | <b>0</b> | <b>222</b> | <b>149</b>                   | <b>519</b> | <b>0</b> | <b>668</b> | <b>1306</b> |
| 8:00 AM           | 96                           | 31        | 0        | 127        | 31              | 37         | 0        | 68         | 37                           | 148        | 0        | 185        | 380         |
| 8:15 AM           | 111                          | 17        | 0        | 128        | 46              | 37         | 0        | 83         | 58                           | 158        | 0        | 216        | 427         |
| 8:30 AM           | 95                           | 25        | 0        | 120        | 38              | 51         | 0        | 89         | 61                           | 135        | 0        | 196        | 405         |
| 8:45 AM           | 94                           | 19        | 0        | 113        | 47              | 48         | 0        | 95         | 62                           | 172        | 0        | 234        | 442         |
| <b>Total</b>      | <b>396</b>                   | <b>92</b> | <b>0</b> | <b>488</b> | <b>162</b>      | <b>173</b> | <b>0</b> | <b>335</b> | <b>218</b>                   | <b>613</b> | <b>0</b> | <b>831</b> | <b>1654</b> |
| Grand Total       | 749                          | 155       | 0        | 904        | 282             | 275        | 0        | 557        | 367                          | 1132       | 0        | 1499       | 2960        |
| Approach %        | 82.9                         | 17.1      | 0.0      |            | 50.6            | 49.4       | 0.0      |            | 24.5                         | 75.5       | 0.0      |            |             |
| Total %           | 25.3                         | 5.2       | 0.0      | 30.5       | 9.5             | 9.3        | 0.0      | 18.8       | 12.4                         | 38.2       | 0.0      | 50.6       |             |
| Exiting Leg Total |                              |           |          | 1414       |                 |            |          | 522        |                              |            |          | 1024       | 2960        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Washington Street (Route 16) |       |        |             | Highland Street |       |        |            | Washington Street (Route 16) |       |        |             | Total       |
|------------------|------------------------------|-------|--------|-------------|-----------------|-------|--------|------------|------------------------------|-------|--------|-------------|-------------|
|                  | from East                    |       |        |             | from South      |       |        |            | from West                    |       |        |             |             |
|                  | Thru                         | Left  | U-Turn | Total       | Right           | Left  | U-Turn | Total      | Right                        | Thru  | U-Turn | Total       |             |
| 8:00 AM          | 96                           | 31    | 0      | 127         | 31              | 37    | 0      | 68         | 37                           | 148   | 0      | 185         | 380         |
| 8:15 AM          | 111                          | 17    | 0      | 128         | 46              | 37    | 0      | 83         | 58                           | 158   | 0      | 216         | 427         |
| 8:30 AM          | 95                           | 25    | 0      | 120         | 38              | 51    | 0      | 89         | 61                           | 135   | 0      | 196         | 405         |
| 8:45 AM          | 94                           | 19    | 0      | 113         | 47              | 48    | 0      | 95         | 62                           | 172   | 0      | 234         | 442         |
| Total Volume     | 396                          | 92    | 0      | 488         | 162             | 173   | 0      | 335        | 218                          | 613   | 0      | 831         | 1654        |
| % Approach Total | 81.1                         | 18.9  | 0.0    |             | 48.4            | 51.6  | 0.0    |            | 26.2                         | 73.8  | 0.0    |             |             |
| PHF              | 0.892                        | 0.742 | 0.000  | 0.953       | 0.862           | 0.848 | 0.000  | 0.882      | 0.879                        | 0.891 | 0.000  | 0.888       | 0.936       |
| Entering Leg     | 396                          | 92    | 0      | 488         | 162             | 173   | 0      | 335        | 218                          | 613   | 0      | 831         | 1654        |
| Exiting Leg      |                              |       |        | 775         |                 |       |        | 310        |                              |       |        | 569         | 1654        |
| <b>Total</b>     |                              |       |        | <b>1263</b> |                 |       |        | <b>645</b> |                              |       |        | <b>1400</b> | <b>3308</b> |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Washington Street (Route 16) |          |          |           | Highland Street |          |          |          | Washington Street (Route 16) |           |          |           | Total     |
|--------------------|------------------------------|----------|----------|-----------|-----------------|----------|----------|----------|------------------------------|-----------|----------|-----------|-----------|
|                    | from East                    |          |          |           | from South      |          |          |          | from West                    |           |          |           |           |
|                    | Thru                         | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right                        | Thru      | U-Turn   | Total     |           |
| 7:00 AM            | 3                            | 0        | 0        | 3         | 0               | 0        | 0        | 0        | 1                            | 6         | 0        | 7         | 10        |
| 7:15 AM            | 7                            | 0        | 0        | 7         | 0               | 0        | 0        | 0        | 2                            | 6         | 0        | 8         | 15        |
| 7:30 AM            | 6                            | 1        | 0        | 7         | 3               | 0        | 0        | 3        | 0                            | 5         | 0        | 5         | 15        |
| 7:45 AM            | 4                            | 0        | 0        | 4         | 1               | 1        | 0        | 2        | 1                            | 4         | 0        | 5         | 11        |
| <b>Total</b>       | <b>20</b>                    | <b>1</b> | <b>0</b> | <b>21</b> | <b>4</b>        | <b>1</b> | <b>0</b> | <b>5</b> | <b>4</b>                     | <b>21</b> | <b>0</b> | <b>25</b> | <b>51</b> |
| 8:00 AM            | 5                            | 0        | 0        | 5         | 0               | 0        | 0        | 0        | 3                            | 3         | 0        | 6         | 11        |
| 8:15 AM            | 3                            | 0        | 0        | 3         | 0               | 2        | 0        | 2        | 2                            | 5         | 0        | 7         | 12        |
| 8:30 AM            | 4                            | 0        | 0        | 4         | 1               | 1        | 0        | 2        | 2                            | 5         | 0        | 7         | 13        |
| 8:45 AM            | 5                            | 1        | 0        | 6         | 0               | 1        | 0        | 1        | 0                            | 4         | 0        | 4         | 11        |
| <b>Total</b>       | <b>17</b>                    | <b>1</b> | <b>0</b> | <b>18</b> | <b>1</b>        | <b>4</b> | <b>0</b> | <b>5</b> | <b>7</b>                     | <b>17</b> | <b>0</b> | <b>24</b> | <b>47</b> |
| Grand Total        | 37                           | 2        | 0        | 39        | 5               | 5        | 0        | 10       | 11                           | 38        | 0        | 49        | 98        |
| Approach %         | 94.9                         | 5.1      | 0.0      |           | 50.0            | 50.0     | 0.0      |          | 22.4                         | 77.6      | 0.0      |           |           |
| Total %            | 37.8                         | 2.0      | 0.0      | 39.8      | 5.1             | 5.1      | 0.0      | 10.2     | 11.2                         | 38.8      | 0.0      | 50.0      |           |
| Exiting Leg Total  |                              |          |          | 43        |                 |          |          | 13       |                              |           |          | 42        | 98        |
| Buses              | 9                            | 0        | 0        | 9         | 0               | 0        | 0        | 0        | 0                            | 8         | 0        | 8         | 17        |
| % Buses            | 24.3                         | 0.0      | 0.0      | 23.1      | 0.0             | 0.0      | 0.0      | 0.0      | 0.0                          | 21.1      | 0.0      | 16.3      | 17.3      |
| Exiting Leg Total  |                              |          |          | 8         |                 |          |          | 0        |                              |           |          | 9         | 17        |
| Single-Unit Trucks | 23                           | 2        | 0        | 25        | 3               | 5        | 0        | 8        | 10                           | 27        | 0        | 37        | 70        |
| % Single-Unit      | 62.2                         | 100.0    | 0.0      | 64.1      | 60.0            | 100.0    | 0.0      | 80.0     | 90.9                         | 71.1      | 0.0      | 75.5      | 71.4      |
| Exiting Leg Total  |                              |          |          | 30        |                 |          |          | 12       |                              |           |          | 28        | 70        |
| Articulated Trucks | 5                            | 0        | 0        | 5         | 2               | 0        | 0        | 2        | 1                            | 3         | 0        | 4         | 11        |
| % Articulated      | 13.5                         | 0.0      | 0.0      | 12.8      | 40.0            | 0.0      | 0.0      | 20.0     | 9.1                          | 7.9       | 0.0      | 8.2       | 11.2      |
| Exiting Leg Total  |                              |          |          | 5         |                 |          |          | 1        |                              |           |          | 5         | 11        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                    | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                    | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 7:15 AM            | 7                            | 0     | 0      | 7     | 0               | 0     | 0      | 0     | 2                            | 6     | 0      | 8     | 15    |
| 7:30 AM            | 6                            | 1     | 0      | 7     | 3               | 0     | 0      | 3     | 0                            | 5     | 0      | 5     | 15    |
| 7:45 AM            | 4                            | 0     | 0      | 4     | 1               | 1     | 0      | 2     | 1                            | 4     | 0      | 5     | 11    |
| 8:00 AM            | 5                            | 0     | 0      | 5     | 0               | 0     | 0      | 0     | 3                            | 3     | 0      | 6     | 11    |
| Total Volume       | 22                           | 1     | 0      | 23    | 4               | 1     | 0      | 5     | 6                            | 18    | 0      | 24    | 52    |
| % Approach Total   | 95.7                         | 4.3   | 0.0    |       | 80.0            | 20.0  | 0.0    |       | 25.0                         | 75.0  | 0.0    |       |       |
| PHF                | 0.786                        | 0.250 | 0.000  | 0.821 | 0.333           | 0.250 | 0.000  | 0.417 | 0.500                        | 0.750 | 0.000  | 0.750 | 0.867 |
| Buses              | 6                            | 0     | 0      | 6     | 0               | 0     | 0      | 0     | 0                            | 3     | 0      | 3     | 9     |
| Buses %            | 27.3                         | 0.0   | 0.0    | 26.1  | 0.0             | 0.0   | 0.0    | 0.0   | 0.0                          | 16.7  | 0.0    | 12.5  | 17.3  |
| Single-Unit Trucks | 13                           | 1     | 0      | 14    | 2               | 1     | 0      | 3     | 5                            | 14    | 0      | 19    | 36    |
| Single-Unit %      | 59.1                         | 100.0 | 0.0    | 60.9  | 50.0            | 100.0 | 0.0    | 60.0  | 83.3                         | 77.8  | 0.0    | 79.2  | 69.2  |
| Articulated Trucks | 3                            | 0     | 0      | 3     | 2               | 0     | 0      | 2     | 1                            | 1     | 0      | 2     | 7     |
| Articulated %      | 13.6                         | 0.0   | 0.0    | 13.0  | 50.0            | 0.0   | 0.0    | 40.0  | 16.7                         | 5.6   | 0.0    | 8.3   | 13.5  |
| Buses              | 6                            | 0     | 0      | 6     | 0               | 0     | 0      | 0     | 0                            | 3     | 0      | 3     | 9     |
| Single-Unit Trucks | 13                           | 1     | 0      | 14    | 2               | 1     | 0      | 3     | 5                            | 14    | 0      | 19    | 36    |
| Articulated Trucks | 3                            | 0     | 0      | 3     | 2               | 0     | 0      | 2     | 1                            | 1     | 0      | 2     | 7     |
| Total Entering Leg | 22                           | 1     | 0      | 23    | 4               | 1     | 0      | 5     | 6                            | 18    | 0      | 24    | 52    |
| Buses              |                              |       |        | 3     |                 |       |        | 0     |                              |       |        | 6     | 9     |
| Single-Unit Trucks |                              |       |        | 16    |                 |       |        | 6     |                              |       |        | 14    | 36    |
| Articulated Trucks |                              |       |        | 3     |                 |       |        | 1     |                              |       |        | 3     | 7     |
| Total Exiting Leg  |                              |       |        | 22    |                 |       |        | 7     |                              |       |        | 23    | 52    |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
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 Class:



**Buses**

|                    | Washington Street (Route 16) |          |          |          | Highland Street |          |          |          | Washington Street (Route 16) |          |          |          | Total     |
|--------------------|------------------------------|----------|----------|----------|-----------------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|
|                    | from East                    |          |          |          | from South      |          |          |          | from West                    |          |          |          |           |
|                    | Thru                         | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    |           |
| 7:00 AM            | 1                            | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 2         |
| 7:15 AM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 1         |
| 7:30 AM            | 4                            | 0        | 0        | 4        | 0               | 0        | 0        | 0        | 0                            | 2        | 0        | 2        | 6         |
| 7:45 AM            | 1                            | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 1         |
| <b>Total</b>       | <b>6</b>                     | <b>0</b> | <b>0</b> | <b>6</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>4</b> | <b>0</b> | <b>4</b> | <b>10</b> |
| 8:00 AM            | 1                            | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 1         |
| 8:15 AM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 1         |
| 8:30 AM            | 1                            | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                            | 2        | 0        | 2        | 3         |
| 8:45 AM            | 1                            | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 2         |
| <b>Total</b>       | <b>3</b>                     | <b>0</b> | <b>0</b> | <b>3</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>4</b> | <b>0</b> | <b>4</b> | <b>7</b>  |
| <b>Grand Total</b> | <b>9</b>                     | <b>0</b> | <b>0</b> | <b>9</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>8</b> | <b>0</b> | <b>8</b> | <b>17</b> |
| Approach %         | 100.0                        | 0.0      | 0.0      |          | 0.0             | 0.0      | 0.0      |          | 0.0                          | 100.0    | 0.0      |          |           |
| Total %            | 52.9                         | 0.0      | 0.0      | 52.9     | 0.0             | 0.0      | 0.0      | 0.0      | 0.0                          | 47.1     | 0.0      | 47.1     |           |
| Exiting Leg Total  |                              |          |          | 8        |                 |          |          | 0        |                              |          |          | 9        | 17        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:00 AM          | Washington Street (Route 16) |       |        |           | Highland Street |       |        |          | Washington Street (Route 16) |       |        |           | Total     |
|------------------|------------------------------|-------|--------|-----------|-----------------|-------|--------|----------|------------------------------|-------|--------|-----------|-----------|
|                  | from East                    |       |        |           | from South      |       |        |          | from West                    |       |        |           |           |
|                  | Thru                         | Left  | U-Turn | Total     | Right           | Left  | U-Turn | Total    | Right                        | Thru  | U-Turn | Total     |           |
| 7:00 AM          | 1                            | 0     | 0      | 1         | 0               | 0     | 0      | 0        | 0                            | 1     | 0      | 1         | 2         |
| 7:15 AM          | 0                            | 0     | 0      | 0         | 0               | 0     | 0      | 0        | 0                            | 1     | 0      | 1         | 1         |
| 7:30 AM          | 4                            | 0     | 0      | 4         | 0               | 0     | 0      | 0        | 0                            | 2     | 0      | 2         | 6         |
| 7:45 AM          | 1                            | 0     | 0      | 1         | 0               | 0     | 0      | 0        | 0                            | 0     | 0      | 0         | 1         |
| Total Volume     | 6                            | 0     | 0      | 6         | 0               | 0     | 0      | 0        | 0                            | 4     | 0      | 4         | 10        |
| % Approach Total | 100.0                        | 0.0   | 0.0    |           | 0.0             | 0.0   | 0.0    |          | 0.0                          | 100.0 | 0.0    |           |           |
| PHF              | 0.375                        | 0.000 | 0.000  | 0.375     | 0.000           | 0.000 | 0.000  | 0.000    | 0.000                        | 0.500 | 0.000  | 0.500     | 0.417     |
| Entering Leg     | 6                            | 0     | 0      | 6         | 0               | 0     | 0      | 0        | 0                            | 4     | 0      | 4         | 10        |
| Exiting Leg      |                              |       |        | 4         |                 |       |        | 0        |                              |       |        | 6         | 10        |
| <b>Total</b>     |                              |       |        | <b>10</b> |                 |       |        | <b>0</b> |                              |       |        | <b>10</b> | <b>20</b> |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Single-Unit Trucks**

|                   | Washington Street (Route 16) |          |          |           | Highland Street |          |          |          | Washington Street (Route 16) |           |          |           | Total     |
|-------------------|------------------------------|----------|----------|-----------|-----------------|----------|----------|----------|------------------------------|-----------|----------|-----------|-----------|
|                   | from East                    |          |          |           | from South      |          |          |          | from West                    |           |          |           |           |
|                   | Thru                         | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right                        | Thru      | U-Turn   | Total     |           |
| 7:00 AM           | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 1                            | 5         | 0        | 6         | 7         |
| 7:15 AM           | 5                            | 0        | 0        | 5         | 0               | 0        | 0        | 0        | 1                            | 5         | 0        | 6         | 11        |
| 7:30 AM           | 2                            | 1        | 0        | 3         | 2               | 0        | 0        | 2        | 0                            | 2         | 0        | 2         | 7         |
| 7:45 AM           | 2                            | 0        | 0        | 2         | 0               | 1        | 0        | 1        | 1                            | 4         | 0        | 5         | 8         |
| <b>Total</b>      | <b>10</b>                    | <b>1</b> | <b>0</b> | <b>11</b> | <b>2</b>        | <b>1</b> | <b>0</b> | <b>3</b> | <b>3</b>                     | <b>16</b> | <b>0</b> | <b>19</b> | <b>33</b> |
| 8:00 AM           | 4                            | 0        | 0        | 4         | 0               | 0        | 0        | 0        | 3                            | 3         | 0        | 6         | 10        |
| 8:15 AM           | 2                            | 0        | 0        | 2         | 0               | 2        | 0        | 2        | 2                            | 4         | 0        | 6         | 10        |
| 8:30 AM           | 3                            | 0        | 0        | 3         | 1               | 1        | 0        | 2        | 2                            | 3         | 0        | 5         | 10        |
| 8:45 AM           | 4                            | 1        | 0        | 5         | 0               | 1        | 0        | 1        | 0                            | 1         | 0        | 1         | 7         |
| <b>Total</b>      | <b>13</b>                    | <b>1</b> | <b>0</b> | <b>14</b> | <b>1</b>        | <b>4</b> | <b>0</b> | <b>5</b> | <b>7</b>                     | <b>11</b> | <b>0</b> | <b>18</b> | <b>37</b> |
| Grand Total       | 23                           | 2        | 0        | 25        | 3               | 5        | 0        | 8        | 10                           | 27        | 0        | 37        | 70        |
| Approach %        | 92.0                         | 8.0      | 0.0      |           | 37.5            | 62.5     | 0.0      |          | 27.0                         | 73.0      | 0.0      |           |           |
| Total %           | 32.9                         | 2.9      | 0.0      | 35.7      | 4.3             | 7.1      | 0.0      | 11.4     | 14.3                         | 38.6      | 0.0      | 52.9      |           |
| Exiting Leg Total |                              |          |          | 30        |                 |          |          | 12       |                              |           |          | 28        | 70        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:45 AM          | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                  | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 7:45 AM          | 2                            | 0     | 0      | 2     | 0               | 1     | 0      | 1     | 1                            | 4     | 0      | 5     | 8     |
| 8:00 AM          | 4                            | 0     | 0      | 4     | 0               | 0     | 0      | 0     | 3                            | 3     | 0      | 6     | 10    |
| 8:15 AM          | 2                            | 0     | 0      | 2     | 0               | 2     | 0      | 2     | 2                            | 4     | 0      | 6     | 10    |
| 8:30 AM          | 3                            | 0     | 0      | 3     | 1               | 1     | 0      | 2     | 2                            | 3     | 0      | 5     | 10    |
| Total Volume     | 11                           | 0     | 0      | 11    | 1               | 4     | 0      | 5     | 8                            | 14    | 0      | 22    | 38    |
| % Approach Total | 100.0                        | 0.0   | 0.0    |       | 20.0            | 80.0  | 0.0    |       | 36.4                         | 63.6  | 0.0    |       |       |
| PHF              | 0.688                        | 0.000 | 0.000  | 0.688 | 0.250           | 0.500 | 0.000  | 0.625 | 0.667                        | 0.875 | 0.000  | 0.917 | 0.950 |
| Entering Leg     | 11                           | 0     | 0      | 11    | 1               | 4     | 0      | 5     | 8                            | 14    | 0      | 22    | 38    |
| Exiting Leg      |                              |       |        | 15    |                 |       |        | 8     |                              |       |        | 15    | 38    |
| Total            |                              |       |        | 26    |                 |       |        | 13    |                              |       |        | 37    | 76    |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Articulated Trucks**

|                    | Washington Street (Route 16) |          |          |          | Highland Street |          |          |          | Washington Street (Route 16) |          |          |          | Total     |
|--------------------|------------------------------|----------|----------|----------|-----------------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|
|                    | from East                    |          |          |          | from South      |          |          |          | from West                    |          |          |          |           |
|                    | Thru                         | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    |           |
| 7:00 AM            | 1                            | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 1         |
| 7:15 AM            | 2                            | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 1                            | 0        | 0        | 1        | 3         |
| 7:30 AM            | 0                            | 0        | 0        | 0        | 1               | 0        | 0        | 1        | 0                            | 1        | 0        | 1        | 2         |
| 7:45 AM            | 1                            | 0        | 0        | 1        | 1               | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 2         |
| <b>Total</b>       | <b>4</b>                     | <b>0</b> | <b>0</b> | <b>4</b> | <b>2</b>        | <b>0</b> | <b>0</b> | <b>2</b> | <b>1</b>                     | <b>1</b> | <b>0</b> | <b>2</b> | <b>8</b>  |
| 8:00 AM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         |
| 8:15 AM            | 1                            | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 1         |
| 8:30 AM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         |
| 8:45 AM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 2        | 0        | 2        | 2         |
| <b>Total</b>       | <b>1</b>                     | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>2</b> | <b>0</b> | <b>2</b> | <b>3</b>  |
| <b>Grand Total</b> | <b>5</b>                     | <b>0</b> | <b>0</b> | <b>5</b> | <b>2</b>        | <b>0</b> | <b>0</b> | <b>2</b> | <b>1</b>                     | <b>3</b> | <b>0</b> | <b>4</b> | <b>11</b> |
| Approach %         | 100.0                        | 0.0      | 0.0      |          | 100.0           | 0.0      | 0.0      |          | 25.0                         | 75.0     | 0.0      |          |           |
| Total %            | 45.5                         | 0.0      | 0.0      | 45.5     | 18.2            | 0.0      | 0.0      | 18.2     | 9.1                          | 27.3     | 0.0      | 36.4     |           |
| Exiting Leg Total  |                              |          |          | 5        |                 |          |          | 1        |                              |          |          | 5        | 11        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:00 AM                 | Washington Street (Route 16) |            |            |          | Highland Street |            |            |          | Washington Street (Route 16) |             |            |          | Total     |
|-------------------------|------------------------------|------------|------------|----------|-----------------|------------|------------|----------|------------------------------|-------------|------------|----------|-----------|
|                         | from East                    |            |            |          | from South      |            |            |          | from West                    |             |            |          |           |
|                         | Thru                         | Left       | U-Turn     | Total    | Right           | Left       | U-Turn     | Total    | Right                        | Thru        | U-Turn     | Total    |           |
| 7:00 AM                 | 1                            | 0          | 0          | 1        | 0               | 0          | 0          | 0        | 0                            | 0           | 0          | 0        | 1         |
| 7:15 AM                 | 2                            | 0          | 0          | 2        | 0               | 0          | 0          | 0        | 1                            | 0           | 0          | 1        | 3         |
| 7:30 AM                 | 0                            | 0          | 0          | 0        | 1               | 0          | 0          | 1        | 0                            | 1           | 0          | 1        | 2         |
| 7:45 AM                 | 1                            | 0          | 0          | 1        | 1               | 0          | 0          | 1        | 0                            | 0           | 0          | 0        | 2         |
| <b>Total Volume</b>     | <b>4</b>                     | <b>0</b>   | <b>0</b>   | <b>4</b> | <b>2</b>        | <b>0</b>   | <b>0</b>   | <b>2</b> | <b>1</b>                     | <b>1</b>    | <b>0</b>   | <b>2</b> | <b>8</b>  |
| <b>% Approach Total</b> | <b>100.0</b>                 | <b>0.0</b> | <b>0.0</b> |          | <b>100.0</b>    | <b>0.0</b> | <b>0.0</b> |          | <b>50.0</b>                  | <b>50.0</b> | <b>0.0</b> |          |           |
| PHF                     | 0.500                        | 0.000      | 0.000      | 0.500    | 0.500           | 0.000      | 0.000      | 0.500    | 0.250                        | 0.250       | 0.000      | 0.500    | 0.667     |
| Entering Leg            | 4                            | 0          | 0          | 4        | 2               | 0          | 0          | 2        | 1                            | 1           | 0          | 2        | 8         |
| Exiting Leg             |                              |            |            | 3        |                 |            |            | 1        |                              |             |            | 4        | 8         |
| <b>Total</b>            |                              |            |            | <b>7</b> |                 |            |            | <b>3</b> |                              |             |            | <b>6</b> | <b>16</b> |



PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class: **Bicycles (on Roadway and Crosswalks)**



**Bicycles (on Roadway and Crosswalks)**

|                   | Washington Street (Route 16) |      |        |       |       |       |     | Highland Street |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |     |
|-------------------|------------------------------|------|--------|-------|-------|-------|-----|-----------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|-----|
|                   | from East                    |      |        |       |       |       |     | from South      |      |        |       |       |       | from West                    |      |        |       |       |       |       |     |
|                   | Thru                         | Left | U-Turn | CW-SB | CW-NB | Total |     | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru | U-Turn | CW-NB | CW-SB | Total |       |     |
| 7:00 AM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   |
| 7:15 AM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 1               | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 0     | 0     | 1   |
| 7:30 AM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   |
| 7:45 AM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   |
| Total             | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 1               | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 0     | 0     | 1   |
| 8:00 AM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 2    | 0      | 0     | 0     | 0     | 2     | 2   |
| 8:15 AM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   |
| 8:30 AM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   |
| 8:45 AM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0   |
| Total             | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 2    | 0      | 0     | 0     | 0     | 2     | 2   |
| Grand Total       | 0                            | 0    | 0      | 0     | 0     | 0     | 0   | 1               | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 2      | 0     | 0     | 0     | 2     | 3   |
| Approach %        | 0.0                          | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0 | 100.0           | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0  | 100.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0 |
| Total %           | 0.0                          | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0 | 33.3            | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 33.3                         | 0.0  | 66.7   | 0.0   | 0.0   | 0.0   | 66.7  | 0.0 |
| Exiting Leg Total | 3                            |      |        |       |       |       |     | 0               |      |        |       |       |       | 0                            |      |        |       |       |       | 3     |     |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:15 AM          | Washington Street (Route 16) |       |        |       |       |       |       | Highland Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |       |
|------------------|------------------------------|-------|--------|-------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|-------|
|                  | from East                    |       |        |       |       |       |       | from South      |       |        |       |       |       | from West                    |       |        |       |       |       |       |       |
|                  | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total |       | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | U-Turn | CW-NB | CW-SB | Total |       |       |
| 7:15 AM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 0     | 1                            | 0     | 0      | 0     | 0     | 0     | 0     | 1     |
| 7:30 AM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     |
| 7:45 AM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0     |
| 8:00 AM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 2     | 0      | 0     | 0     | 0     | 2     | 2     |
| Total Volume     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 0     | 1                            | 0     | 2      | 0     | 0     | 0     | 2     | 3     |
| % Approach Total | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 100.0           | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 100.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| PHF              | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000 | 0.250           | 0.000 | 0.000  | 0.000 | 0.000 | 0.250 | 0.000                        | 0.250 | 0.000  | 0.000 | 0.000 | 0.250 | 0.375 | 0.375 |
| Entering Leg     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 1     | 0                            | 2     | 0      | 0     | 0     | 0     | 2     | 3     |
| Exiting Leg      | 3                            |       |        |       |       |       |       | 0               |       |        |       |       |       | 0                            |       |        |       |       |       | 3     |       |
| Total            | 3                            |       |        |       |       |       |       | 1               |       |        |       |       |       | 2                            |       |        |       |       |       | 6     |       |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Pedestrians**

|                   | Washington Street (Route 16) |      |        |       |        |        | Highland Street |      |        |        |        |        | Washington Street (Route 16) |      |        |       |       |       | Total |
|-------------------|------------------------------|------|--------|-------|--------|--------|-----------------|------|--------|--------|--------|--------|------------------------------|------|--------|-------|-------|-------|-------|
|                   | from East                    |      |        |       |        |        | from South      |      |        |        |        |        | from West                    |      |        |       |       |       |       |
|                   | Thru                         | Left | U-Turn | CW-SB | CW-NB  | Total  | Right           | Left | U-Turn | CW-WB  | CW-EB  | Total  | Right                        | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 7:00 AM           | 0                            | 0    | 0      | 0     | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 7:15 AM           | 0                            | 0    | 0      | 0     | 1      | 1      | 0               | 0    | 0      | 0      | 1      | 1      | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 7:30 AM           | 0                            | 0    | 0      | 1     | 0      | 1      | 0               | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:45 AM           | 0                            | 0    | 0      | 4     | 0      | 4      | 0               | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0     | 0     | 0     | 4     |
| Total             | 0                            | 0    | 0      | 5     | 1      | 6      | 0               | 0    | 0      | 0      | 1      | 1      | 0                            | 0    | 0      | 0     | 0     | 0     | 7     |
| 8:00 AM           | 0                            | 0    | 0      | 1     | 0      | 1      | 0               | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 8:15 AM           | 0                            | 0    | 0      | 2     | 2      | 4      | 0               | 0    | 0      | 0      | 1      | 1      | 0                            | 0    | 0      | 0     | 0     | 0     | 5     |
| 8:30 AM           | 0                            | 0    | 0      | 2     | 2      | 4      | 0               | 0    | 0      | 1      | 2      | 3      | 0                            | 0    | 0      | 0     | 0     | 0     | 7     |
| 8:45 AM           | 0                            | 0    | 0      | 1     | 0      | 1      | 0               | 0    | 0      | 1      | 0      | 1      | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| Total             | 0                            | 0    | 0      | 6     | 4      | 10     | 0               | 0    | 0      | 2      | 3      | 5      | 0                            | 0    | 0      | 0     | 0     | 0     | 15    |
| Grand Total       | 0                            | 0    | 0      | 11    | 5      | 16     | 0               | 0    | 0      | 2      | 4      | 6      | 0                            | 0    | 0      | 0     | 0     | 0     | 22    |
| Approach %        | 0                            | 0    | 0      | 68.75 | 31.25  |        | 0               | 0    | 0      | 33.333 | 66.667 |        | 0                            | 0    | 0      | 0     | 0     |       |       |
| Total %           | 0                            | 0    | 0      | 50    | 22.727 | 72.727 | 0               | 0    | 0      | 9.0909 | 18.182 | 27.273 | 0                            | 0    | 0      | 0     | 0     | 0     |       |
| Exiting Leg Total | 16                           |      |        |       |        |        | 6               |      |        |        |        |        | 0                            |      |        |       |       |       | 22    |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Washington Street (Route 16) |       |        |       |       |       | Highland Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|------------------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from East                    |       |        |       |       |       | from South      |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 7:45 AM          | 0                            | 0     | 0      | 4     | 0     | 4     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 4     |
| 8:00 AM          | 0                            | 0     | 0      | 1     | 0     | 1     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 1     |
| 8:15 AM          | 0                            | 0     | 0      | 2     | 2     | 4     | 0               | 0     | 0      | 0     | 1     | 1     | 0                            | 0     | 0      | 0     | 0     | 0     | 5     |
| 8:30 AM          | 0                            | 0     | 0      | 2     | 2     | 4     | 0               | 0     | 0      | 1     | 2     | 3     | 0                            | 0     | 0      | 0     | 0     | 0     | 7     |
| Total Volume     | 0                            | 0     | 0      | 9     | 4     | 13    | 0               | 0     | 0      | 1     | 3     | 4     | 0                            | 0     | 0      | 0     | 0     | 0     | 17    |
| % Approach Total | 0.0                          | 0.0   | 0.0    | 69.2  | 30.8  |       | 0.0             | 0.0   | 0.0    | 25.0  | 75.0  |       | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   |       |       |
| PHF              | 0.000                        | 0.000 | 0.000  | 0.563 | 0.500 | 0.813 | 0.000           | 0.000 | 0.000  | 0.250 | 0.375 | 0.333 | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.607 |
| Entering Leg     | 0                            | 0     | 0      | 9     | 4     | 13    | 0               | 0     | 0      | 1     | 3     | 4     | 0                            | 0     | 0      | 0     | 0     | 0     | 17    |
| Exiting Leg      | 13                           |       |        |       |       |       | 4               |       |        |       |       |       | 0                            |       |        |       |       |       | 17    |
| Total            | 26                           |       |        |       |       |       | 8               |       |        |       |       |       | 0                            |       |        |       |       |       | 34    |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Washington Street (Route 16) |           |          |            | Highland Street |            |          |            | Washington Street (Route 16) |            |          |            | Total       |
|-------------------|------------------------------|-----------|----------|------------|-----------------|------------|----------|------------|------------------------------|------------|----------|------------|-------------|
|                   | from East                    |           |          |            | from South      |            |          |            | from West                    |            |          |            |             |
|                   | Thru                         | Left      | U-Turn   | Total      | Right           | Left       | U-Turn   | Total      | Right                        | Thru       | U-Turn   | Total      |             |
| 4:00 PM           | 111                          | 27        | 0        | 138        | 32              | 66         | 0        | 98         | 37                           | 111        | 0        | 148        | 384         |
| 4:15 PM           | 130                          | 27        | 0        | 157        | 35              | 59         | 0        | 94         | 32                           | 149        | 0        | 181        | 432         |
| 4:30 PM           | 98                           | 22        | 0        | 120        | 37              | 51         | 0        | 88         | 31                           | 129        | 0        | 160        | 368         |
| 4:45 PM           | 135                          | 20        | 0        | 155        | 35              | 50         | 0        | 85         | 31                           | 131        | 0        | 162        | 402         |
| <b>Total</b>      | <b>474</b>                   | <b>96</b> | <b>0</b> | <b>570</b> | <b>139</b>      | <b>226</b> | <b>0</b> | <b>365</b> | <b>131</b>                   | <b>520</b> | <b>0</b> | <b>651</b> | <b>1586</b> |
| 5:00 PM           | 120                          | 19        | 0        | 139        | 18              | 53         | 0        | 71         | 36                           | 142        | 0        | 178        | 388         |
| 5:15 PM           | 147                          | 14        | 0        | 161        | 10              | 64         | 0        | 74         | 37                           | 147        | 0        | 184        | 419         |
| 5:30 PM           | 111                          | 12        | 0        | 123        | 18              | 58         | 0        | 76         | 43                           | 165        | 0        | 208        | 407         |
| 5:45 PM           | 133                          | 21        | 0        | 154        | 4               | 50         | 0        | 54         | 33                           | 187        | 0        | 220        | 428         |
| <b>Total</b>      | <b>511</b>                   | <b>66</b> | <b>0</b> | <b>577</b> | <b>50</b>       | <b>225</b> | <b>0</b> | <b>275</b> | <b>149</b>                   | <b>641</b> | <b>0</b> | <b>790</b> | <b>1642</b> |
| Grand Total       | 985                          | 162       | 0        | 1147       | 189             | 451        | 0        | 640        | 280                          | 1161       | 0        | 1441       | 3228        |
| Approach %        | 85.9                         | 14.1      | 0.0      |            | 29.5            | 70.5       | 0.0      |            | 19.4                         | 80.6       | 0.0      |            |             |
| Total %           | 30.5                         | 5.0       | 0.0      | 35.5       | 5.9             | 14.0       | 0.0      | 19.8       | 8.7                          | 36.0       | 0.0      | 44.6       |             |
| Exiting Leg Total |                              |           |          | 1350       |                 |            |          | 442        |                              |            |          | 1436       | 3228        |
| Cars              | 964                          | 159       | 0        | 1123       | 185             | 446        | 0        | 631        | 276                          | 1140       | 0        | 1416       | 3170        |
| % Cars            | 97.9                         | 98.1      | 0.0      | 97.9       | 97.9            | 98.9       | 0.0      | 98.6       | 98.6                         | 98.2       | 0.0      | 98.3       | 98.2        |
| Exiting Leg Total |                              |           |          | 1325       |                 |            |          | 435        |                              |            |          | 1410       | 3170        |
| Heavy Vehicles    | 21                           | 3         | 0        | 24         | 4               | 5          | 0        | 9          | 4                            | 21         | 0        | 25         | 58          |
| % Heavy Vehicles  | 2.1                          | 1.9       | 0.0      | 2.1        | 2.1             | 1.1        | 0.0      | 1.4        | 1.4                          | 1.8        | 0.0      | 1.7        | 1.8         |
| Exiting Leg Total |                              |           |          | 25         |                 |            |          | 7          |                              |            |          | 26         | 58          |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 5:00 PM            | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                    | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 5:00 PM            | 120                          | 19    | 0      | 139   | 18              | 53    | 0      | 71    | 36                           | 142   | 0      | 178   | 388   |
| 5:15 PM            | 147                          | 14    | 0      | 161   | 10              | 64    | 0      | 74    | 37                           | 147   | 0      | 184   | 419   |
| 5:30 PM            | 111                          | 12    | 0      | 123   | 18              | 58    | 0      | 76    | 43                           | 165   | 0      | 208   | 407   |
| 5:45 PM            | 133                          | 21    | 0      | 154   | 4               | 50    | 0      | 54    | 33                           | 187   | 0      | 220   | 428   |
| Total Volume       | 511                          | 66    | 0      | 577   | 50              | 225   | 0      | 275   | 149                          | 641   | 0      | 790   | 1642  |
| % Approach Total   | 88.6                         | 11.4  | 0.0    |       | 18.2            | 81.8  | 0.0    |       | 18.9                         | 81.1  | 0.0    |       |       |
| PHF                | 0.869                        | 0.786 | 0.000  | 0.896 | 0.694           | 0.879 | 0.000  | 0.905 | 0.866                        | 0.857 | 0.000  | 0.898 | 0.959 |
| Cars               | 502                          | 66    | 0      | 568   | 49              | 223   | 0      | 272   | 147                          | 634   | 0      | 781   | 1621  |
| Cars %             | 98.2                         | 100.0 | 0.0    | 98.4  | 98.0            | 99.1  | 0.0    | 98.9  | 98.7                         | 98.9  | 0.0    | 98.9  | 98.7  |
| Heavy Vehicles     | 9                            | 0     | 0      | 9     | 1               | 2     | 0      | 3     | 2                            | 7     | 0      | 9     | 21    |
| Heavy Vehicles %   | 1.8                          | 0.0   | 0.0    | 1.6   | 2.0             | 0.9   | 0.0    | 1.1   | 1.3                          | 1.1   | 0.0    | 1.1   | 1.3   |
| Cars Enter Leg     | 502                          | 66    | 0      | 568   | 49              | 223   | 0      | 272   | 147                          | 634   | 0      | 781   | 1621  |
| Heavy Enter Leg    | 9                            | 0     | 0      | 9     | 1               | 2     | 0      | 3     | 2                            | 7     | 0      | 9     | 21    |
| Total Entering Leg | 511                          | 66    | 0      | 577   | 50              | 225   | 0      | 275   | 149                          | 641   | 0      | 790   | 1642  |
| Cars Exiting Leg   |                              |       |        | 683   |                 |       |        | 213   |                              |       |        | 725   | 1621  |
| Heavy Exiting Leg  |                              |       |        | 8     |                 |       |        | 2     |                              |       |        | 11    | 21    |
| Total Exiting Leg  |                              |       |        | 691   |                 |       |        | 215   |                              |       |        | 736   | 1642  |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars**

|                   | Washington Street (Route 16) |           |          |            | Highland Street |            |          |            | Washington Street (Route 16) |            |          |            | Total       |
|-------------------|------------------------------|-----------|----------|------------|-----------------|------------|----------|------------|------------------------------|------------|----------|------------|-------------|
|                   | from East                    |           |          |            | from South      |            |          |            | from West                    |            |          |            |             |
|                   | Thru                         | Left      | U-Turn   | Total      | Right           | Left       | U-Turn   | Total      | Right                        | Thru       | U-Turn   | Total      |             |
| 4:00 PM           | 108                          | 27        | 0        | 135        | 32              | 65         | 0        | 97         | 36                           | 108        | 0        | 144        | 376         |
| 4:15 PM           | 129                          | 26        | 0        | 155        | 33              | 57         | 0        | 90         | 32                           | 143        | 0        | 175        | 420         |
| 4:30 PM           | 95                           | 21        | 0        | 116        | 36              | 51         | 0        | 87         | 31                           | 125        | 0        | 156        | 359         |
| 4:45 PM           | 130                          | 19        | 0        | 149        | 35              | 50         | 0        | 85         | 30                           | 130        | 0        | 160        | 394         |
| <b>Total</b>      | <b>462</b>                   | <b>93</b> | <b>0</b> | <b>555</b> | <b>136</b>      | <b>223</b> | <b>0</b> | <b>359</b> | <b>129</b>                   | <b>506</b> | <b>0</b> | <b>635</b> | <b>1549</b> |
| 5:00 PM           | 116                          | 19        | 0        | 135        | 18              | 53         | 0        | 71         | 36                           | 141        | 0        | 177        | 383         |
| 5:15 PM           | 145                          | 14        | 0        | 159        | 10              | 64         | 0        | 74         | 37                           | 145        | 0        | 182        | 415         |
| 5:30 PM           | 111                          | 12        | 0        | 123        | 17              | 58         | 0        | 75         | 41                           | 162        | 0        | 203        | 401         |
| 5:45 PM           | 130                          | 21        | 0        | 151        | 4               | 48         | 0        | 52         | 33                           | 186        | 0        | 219        | 422         |
| <b>Total</b>      | <b>502</b>                   | <b>66</b> | <b>0</b> | <b>568</b> | <b>49</b>       | <b>223</b> | <b>0</b> | <b>272</b> | <b>147</b>                   | <b>634</b> | <b>0</b> | <b>781</b> | <b>1621</b> |
| Grand Total       | 964                          | 159       | 0        | 1123       | 185             | 446        | 0        | 631        | 276                          | 1140       | 0        | 1416       | 3170        |
| Approach %        | 85.8                         | 14.2      | 0.0      |            | 29.3            | 70.7       | 0.0      |            | 19.5                         | 80.5       | 0.0      |            |             |
| Total %           | 30.4                         | 5.0       | 0.0      | 35.4       | 5.8             | 14.1       | 0.0      | 19.9       | 8.7                          | 36.0       | 0.0      | 44.7       |             |
| Exiting Leg Total |                              |           |          | 1325       |                 |            |          | 435        |                              |            |          | 1410       | 3170        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Washington Street (Route 16) |       |        |             | Highland Street |       |        |            | Washington Street (Route 16) |       |        |             | Total       |
|------------------|------------------------------|-------|--------|-------------|-----------------|-------|--------|------------|------------------------------|-------|--------|-------------|-------------|
|                  | from East                    |       |        |             | from South      |       |        |            | from West                    |       |        |             |             |
|                  | Thru                         | Left  | U-Turn | Total       | Right           | Left  | U-Turn | Total      | Right                        | Thru  | U-Turn | Total       |             |
| 5:00 PM          | 116                          | 19    | 0      | 135         | 18              | 53    | 0      | 71         | 36                           | 141   | 0      | 177         | 383         |
| 5:15 PM          | 145                          | 14    | 0      | 159         | 10              | 64    | 0      | 74         | 37                           | 145   | 0      | 182         | 415         |
| 5:30 PM          | 111                          | 12    | 0      | 123         | 17              | 58    | 0      | 75         | 41                           | 162   | 0      | 203         | 401         |
| 5:45 PM          | 130                          | 21    | 0      | 151         | 4               | 48    | 0      | 52         | 33                           | 186   | 0      | 219         | 422         |
| Total Volume     | 502                          | 66    | 0      | 568         | 49              | 223   | 0      | 272        | 147                          | 634   | 0      | 781         | 1621        |
| % Approach Total | 88.4                         | 11.6  | 0.0    |             | 18.0            | 82.0  | 0.0    |            | 18.8                         | 81.2  | 0.0    |             |             |
| PHF              | 0.866                        | 0.786 | 0.000  | 0.893       | 0.681           | 0.871 | 0.000  | 0.907      | 0.896                        | 0.852 | 0.000  | 0.892       | 0.960       |
| Entering Leg     | 502                          | 66    | 0      | 568         | 49              | 223   | 0      | 272        | 147                          | 634   | 0      | 781         | 1621        |
| Exiting Leg      |                              |       |        | 683         |                 |       |        | 213        |                              |       |        | 725         | 1621        |
| <b>Total</b>     |                              |       |        | <b>1251</b> |                 |       |        | <b>485</b> |                              |       |        | <b>1506</b> | <b>3242</b> |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



|                    | Washington Street (Route 16) |          |          |           | Highland Street |          |          |          | Washington Street (Route 16) |           |          |           | Total     |
|--------------------|------------------------------|----------|----------|-----------|-----------------|----------|----------|----------|------------------------------|-----------|----------|-----------|-----------|
|                    | from East                    |          |          |           | from South      |          |          |          | from West                    |           |          |           |           |
|                    | Thru                         | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right                        | Thru      | U-Turn   | Total     |           |
| 4:00 PM            | 3                            | 0        | 0        | 3         | 0               | 1        | 0        | 1        | 1                            | 3         | 0        | 4         | 8         |
| 4:15 PM            | 1                            | 1        | 0        | 2         | 2               | 2        | 0        | 4        | 0                            | 6         | 0        | 6         | 12        |
| 4:30 PM            | 3                            | 1        | 0        | 4         | 1               | 0        | 0        | 1        | 0                            | 4         | 0        | 4         | 9         |
| 4:45 PM            | 5                            | 1        | 0        | 6         | 0               | 0        | 0        | 0        | 1                            | 1         | 0        | 2         | 8         |
| <b>Total</b>       | <b>12</b>                    | <b>3</b> | <b>0</b> | <b>15</b> | <b>3</b>        | <b>3</b> | <b>0</b> | <b>6</b> | <b>2</b>                     | <b>14</b> | <b>0</b> | <b>16</b> | <b>37</b> |
| 5:00 PM            | 4                            | 0        | 0        | 4         | 0               | 0        | 0        | 0        | 0                            | 1         | 0        | 1         | 5         |
| 5:15 PM            | 2                            | 0        | 0        | 2         | 0               | 0        | 0        | 0        | 0                            | 2         | 0        | 2         | 4         |
| 5:30 PM            | 0                            | 0        | 0        | 0         | 1               | 0        | 0        | 1        | 2                            | 3         | 0        | 5         | 6         |
| 5:45 PM            | 3                            | 0        | 0        | 3         | 0               | 2        | 0        | 2        | 0                            | 1         | 0        | 1         | 6         |
| <b>Total</b>       | <b>9</b>                     | <b>0</b> | <b>0</b> | <b>9</b>  | <b>1</b>        | <b>2</b> | <b>0</b> | <b>3</b> | <b>2</b>                     | <b>7</b>  | <b>0</b> | <b>9</b>  | <b>21</b> |
| Grand Total        | 21                           | 3        | 0        | 24        | 4               | 5        | 0        | 9        | 4                            | 21        | 0        | 25        | 58        |
| Approach %         | 87.5                         | 12.5     | 0.0      |           | 44.4            | 55.6     | 0.0      |          | 16.0                         | 84.0      | 0.0      |           |           |
| Total %            | 36.2                         | 5.2      | 0.0      | 41.4      | 6.9             | 8.6      | 0.0      | 15.5     | 6.9                          | 36.2      | 0.0      | 43.1      |           |
| Exiting Leg Total  |                              |          |          | 25        |                 |          |          | 7        |                              |           |          | 26        | 58        |
| Buses              | 9                            | 2        | 0        | 11        | 3               | 0        | 0        | 3        | 0                            | 8         | 0        | 8         | 22        |
| % Buses            | 42.9                         | 66.7     | 0.0      | 45.8      | 75.0            | 0.0      | 0.0      | 33.3     | 0.0                          | 38.1      | 0.0      | 32.0      | 37.9      |
| Exiting Leg Total  |                              |          |          | 11        |                 |          |          | 2        |                              |           |          | 9         | 22        |
| Single-Unit Trucks | 11                           | 1        | 0        | 12        | 1               | 4        | 0        | 5        | 4                            | 9         | 0        | 13        | 30        |
| % Single-Unit      | 52.4                         | 33.3     | 0.0      | 50.0      | 25.0            | 80.0     | 0.0      | 55.6     | 100.0                        | 42.9      | 0.0      | 52.0      | 51.7      |
| Exiting Leg Total  |                              |          |          | 10        |                 |          |          | 5        |                              |           |          | 15        | 30        |
| Articulated Trucks | 1                            | 0        | 0        | 1         | 0               | 1        | 0        | 1        | 0                            | 4         | 0        | 4         | 6         |
| % Articulated      | 4.8                          | 0.0      | 0.0      | 4.2       | 0.0             | 20.0     | 0.0      | 11.1     | 0.0                          | 19.0      | 0.0      | 16.0      | 10.3      |
| Exiting Leg Total  |                              |          |          | 4         |                 |          |          | 0        |                              |           |          | 2         | 6         |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                    | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                    | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 4:00 PM            | 3                            | 0     | 0      | 3     | 0               | 1     | 0      | 1     | 1                            | 3     | 0      | 4     | 8     |
| 4:15 PM            | 1                            | 1     | 0      | 2     | 2               | 2     | 0      | 4     | 0                            | 6     | 0      | 6     | 12    |
| 4:30 PM            | 3                            | 1     | 0      | 4     | 1               | 0     | 0      | 1     | 0                            | 4     | 0      | 4     | 9     |
| 4:45 PM            | 5                            | 1     | 0      | 6     | 0               | 0     | 0      | 0     | 1                            | 1     | 0      | 2     | 8     |
| Total Volume       | 12                           | 3     | 0      | 15    | 3               | 3     | 0      | 6     | 2                            | 14    | 0      | 16    | 37    |
| % Approach Total   | 80.0                         | 20.0  | 0.0    |       | 50.0            | 50.0  | 0.0    |       | 12.5                         | 87.5  | 0.0    |       |       |
| PHF                | 0.600                        | 0.750 | 0.000  | 0.625 | 0.375           | 0.375 | 0.000  | 0.375 | 0.500                        | 0.583 | 0.000  | 0.667 | 0.771 |
| Buses              | 5                            | 2     | 0      | 7     | 3               | 0     | 0      | 3     | 0                            | 7     | 0      | 7     | 17    |
| Buses %            | 41.7                         | 66.7  | 0.0    | 46.7  | 100.0           | 0.0   | 0.0    | 50.0  | 0.0                          | 50.0  | 0.0    | 43.8  | 45.9  |
| Single-Unit Trucks | 6                            | 1     | 0      | 7     | 0               | 2     | 0      | 2     | 2                            | 4     | 0      | 6     | 15    |
| Single-Unit %      | 50.0                         | 33.3  | 0.0    | 46.7  | 0.0             | 66.7  | 0.0    | 33.3  | 100.0                        | 28.6  | 0.0    | 37.5  | 40.5  |
| Articulated Trucks | 1                            | 0     | 0      | 1     | 0               | 1     | 0      | 1     | 0                            | 3     | 0      | 3     | 5     |
| Articulated %      | 8.3                          | 0.0   | 0.0    | 6.7   | 0.0             | 33.3  | 0.0    | 16.7  | 0.0                          | 21.4  | 0.0    | 18.8  | 13.5  |
| Buses              | 5                            | 2     | 0      | 7     | 3               | 0     | 0      | 3     | 0                            | 7     | 0      | 7     | 17    |
| Single-Unit Trucks | 6                            | 1     | 0      | 7     | 0               | 2     | 0      | 2     | 2                            | 4     | 0      | 6     | 15    |
| Articulated Trucks | 1                            | 0     | 0      | 1     | 0               | 1     | 0      | 1     | 0                            | 3     | 0      | 3     | 5     |
| Total Entering Leg | 12                           | 3     | 0      | 15    | 3               | 3     | 0      | 6     | 2                            | 14    | 0      | 16    | 37    |
| Buses              |                              |       |        | 10    |                 |       |        | 2     |                              |       |        | 5     | 17    |
| Single-Unit Trucks |                              |       |        | 4     |                 |       |        | 3     |                              |       |        | 8     | 15    |
| Articulated Trucks |                              |       |        | 3     |                 |       |        | 0     |                              |       |        | 2     | 5     |
| Total Exiting Leg  |                              |       |        | 17    |                 |       |        | 5     |                              |       |        | 15    | 37    |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Buses**

|                    | Washington Street (Route 16) |          |          |           | Highland Street |          |          |          | Washington Street (Route 16) |          |          |          | Total     |
|--------------------|------------------------------|----------|----------|-----------|-----------------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|
|                    | from East                    |          |          |           | from South      |          |          |          | from West                    |          |          |          |           |
|                    | Thru                         | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    |           |
| 4:00 PM            | 2                            | 0        | 0        | 2         | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 2         |
| 4:15 PM            | 1                            | 1        | 0        | 2         | 2               | 0        | 0        | 2        | 0                            | 5        | 0        | 5        | 9         |
| 4:30 PM            | 1                            | 1        | 0        | 2         | 1               | 0        | 0        | 1        | 0                            | 1        | 0        | 1        | 4         |
| 4:45 PM            | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 2         |
| <b>Total</b>       | <b>5</b>                     | <b>2</b> | <b>0</b> | <b>7</b>  | <b>3</b>        | <b>0</b> | <b>0</b> | <b>3</b> | <b>0</b>                     | <b>7</b> | <b>0</b> | <b>7</b> | <b>17</b> |
| 5:00 PM            | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 1         |
| 5:15 PM            | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 2         |
| 5:30 PM            | 0                            | 0        | 0        | 0         | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         |
| 5:45 PM            | 2                            | 0        | 0        | 2         | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 2         |
| <b>Total</b>       | <b>4</b>                     | <b>0</b> | <b>0</b> | <b>4</b>  | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>1</b> | <b>0</b> | <b>1</b> | <b>5</b>  |
| <b>Grand Total</b> | <b>9</b>                     | <b>2</b> | <b>0</b> | <b>11</b> | <b>3</b>        | <b>0</b> | <b>0</b> | <b>3</b> | <b>0</b>                     | <b>8</b> | <b>0</b> | <b>8</b> | <b>22</b> |
| Approach %         | 81.8                         | 18.2     | 0.0      |           | 100.0           | 0.0      | 0.0      |          | 0.0                          | 100.0    | 0.0      |          |           |
| Total %            | 40.9                         | 9.1      | 0.0      | 50.0      | 13.6            | 0.0      | 0.0      | 13.6     | 0.0                          | 36.4     | 0.0      | 36.4     |           |
| Exiting Leg Total  |                              |          |          | 11        |                 |          |          | 2        |                              |          |          | 9        | 22        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM                 | Washington Street (Route 16) |             |            |           | Highland Street |            |            |          | Washington Street (Route 16) |              |            |           | Total     |
|-------------------------|------------------------------|-------------|------------|-----------|-----------------|------------|------------|----------|------------------------------|--------------|------------|-----------|-----------|
|                         | from East                    |             |            |           | from South      |            |            |          | from West                    |              |            |           |           |
|                         | Thru                         | Left        | U-Turn     | Total     | Right           | Left       | U-Turn     | Total    | Right                        | Thru         | U-Turn     | Total     |           |
| 4:00 PM                 | 2                            | 0           | 0          | 2         | 0               | 0          | 0          | 0        | 0                            | 0            | 0          | 0         | 2         |
| 4:15 PM                 | 1                            | 1           | 0          | 2         | 2               | 0          | 0          | 2        | 0                            | 5            | 0          | 5         | 9         |
| 4:30 PM                 | 1                            | 1           | 0          | 2         | 1               | 0          | 0          | 1        | 0                            | 1            | 0          | 1         | 4         |
| 4:45 PM                 | 1                            | 0           | 0          | 1         | 0               | 0          | 0          | 0        | 0                            | 1            | 0          | 1         | 2         |
| <b>Total Volume</b>     | <b>5</b>                     | <b>2</b>    | <b>0</b>   | <b>7</b>  | <b>3</b>        | <b>0</b>   | <b>0</b>   | <b>3</b> | <b>0</b>                     | <b>7</b>     | <b>0</b>   | <b>7</b>  | <b>17</b> |
| <b>% Approach Total</b> | <b>71.4</b>                  | <b>28.6</b> | <b>0.0</b> |           | <b>100.0</b>    | <b>0.0</b> | <b>0.0</b> |          | <b>0.0</b>                   | <b>100.0</b> | <b>0.0</b> |           |           |
| PHF                     | 0.625                        | 0.500       | 0.000      | 0.875     | 0.375           | 0.000      | 0.000      | 0.375    | 0.000                        | 0.350        | 0.000      | 0.350     | 0.472     |
| Entering Leg            | 5                            | 2           | 0          | 7         | 3               | 0          | 0          | 3        | 0                            | 7            | 0          | 7         | 17        |
| Exiting Leg             |                              |             |            | 10        |                 |            |            | 2        |                              |              |            | 5         | 17        |
| <b>Total</b>            |                              |             |            | <b>17</b> |                 |            |            | <b>5</b> |                              |              |            | <b>12</b> | <b>34</b> |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Single-Unit Trucks**

|                    | Washington Street (Route 16) |          |          |           | Highland Street |          |          |          | Washington Street (Route 16) |          |          |           | Total     |
|--------------------|------------------------------|----------|----------|-----------|-----------------|----------|----------|----------|------------------------------|----------|----------|-----------|-----------|
|                    | from East                    |          |          |           | from South      |          |          |          | from West                    |          |          |           |           |
|                    | Thru                         | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total     |           |
| 4:00 PM            | 1                            | 0        | 0        | 1         | 0               | 1        | 0        | 1        | 1                            | 2        | 0        | 3         | 5         |
| 4:15 PM            | 0                            | 0        | 0        | 0         | 0               | 1        | 0        | 1        | 0                            | 0        | 0        | 0         | 1         |
| 4:30 PM            | 2                            | 0        | 0        | 2         | 0               | 0        | 0        | 0        | 0                            | 2        | 0        | 2         | 4         |
| 4:45 PM            | 3                            | 1        | 0        | 4         | 0               | 0        | 0        | 0        | 1                            | 0        | 0        | 1         | 5         |
| <b>Total</b>       | <b>6</b>                     | <b>1</b> | <b>0</b> | <b>7</b>  | <b>0</b>        | <b>2</b> | <b>0</b> | <b>2</b> | <b>2</b>                     | <b>4</b> | <b>0</b> | <b>6</b>  | <b>15</b> |
| 5:00 PM            | 3                            | 0        | 0        | 3         | 0               | 0        | 0        | 0        | 0                            | 1        | 0        | 1         | 4         |
| 5:15 PM            | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                            | 1        | 0        | 1         | 2         |
| 5:30 PM            | 0                            | 0        | 0        | 0         | 1               | 0        | 0        | 1        | 2                            | 2        | 0        | 4         | 5         |
| 5:45 PM            | 1                            | 0        | 0        | 1         | 0               | 2        | 0        | 2        | 0                            | 1        | 0        | 1         | 4         |
| <b>Total</b>       | <b>5</b>                     | <b>0</b> | <b>0</b> | <b>5</b>  | <b>1</b>        | <b>2</b> | <b>0</b> | <b>3</b> | <b>2</b>                     | <b>5</b> | <b>0</b> | <b>7</b>  | <b>15</b> |
| <b>Grand Total</b> | <b>11</b>                    | <b>1</b> | <b>0</b> | <b>12</b> | <b>1</b>        | <b>4</b> | <b>0</b> | <b>5</b> | <b>4</b>                     | <b>9</b> | <b>0</b> | <b>13</b> | <b>30</b> |
| Approach %         | 91.7                         | 8.3      | 0.0      |           | 20.0            | 80.0     | 0.0      |          | 30.8                         | 69.2     | 0.0      |           |           |
| Total %            | 36.7                         | 3.3      | 0.0      | 40.0      | 3.3             | 13.3     | 0.0      | 16.7     | 13.3                         | 30.0     | 0.0      | 43.3      |           |
| Exiting Leg Total  |                              |          |          | 10        |                 |          |          | 5        |                              |          |          | 15        | 30        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:45 PM          | Washington Street (Route 16) |       |        |           | Highland Street |       |        |          | Washington Street (Route 16) |       |        |           | Total     |
|------------------|------------------------------|-------|--------|-----------|-----------------|-------|--------|----------|------------------------------|-------|--------|-----------|-----------|
|                  | from East                    |       |        |           | from South      |       |        |          | from West                    |       |        |           |           |
|                  | Thru                         | Left  | U-Turn | Total     | Right           | Left  | U-Turn | Total    | Right                        | Thru  | U-Turn | Total     |           |
| 4:45 PM          | 3                            | 1     | 0      | 4         | 0               | 0     | 0      | 0        | 1                            | 0     | 0      | 1         | 5         |
| 5:00 PM          | 3                            | 0     | 0      | 3         | 0               | 0     | 0      | 0        | 0                            | 1     | 0      | 1         | 4         |
| 5:15 PM          | 1                            | 0     | 0      | 1         | 0               | 0     | 0      | 0        | 0                            | 1     | 0      | 1         | 2         |
| 5:30 PM          | 0                            | 0     | 0      | 0         | 1               | 0     | 0      | 1        | 2                            | 2     | 0      | 4         | 5         |
| Total Volume     | 7                            | 1     | 0      | 8         | 1               | 0     | 0      | 1        | 3                            | 4     | 0      | 7         | 16        |
| % Approach Total | 87.5                         | 12.5  | 0.0    |           | 100.0           | 0.0   | 0.0    |          | 42.9                         | 57.1  | 0.0    |           |           |
| PHF              | 0.583                        | 0.250 | 0.000  | 0.500     | 0.250           | 0.000 | 0.000  | 0.250    | 0.375                        | 0.500 | 0.000  | 0.438     | 0.800     |
| Entering Leg     | 7                            | 1     | 0      | 8         | 1               | 0     | 0      | 1        | 3                            | 4     | 0      | 7         | 16        |
| Exiting Leg      |                              |       |        | 5         |                 |       |        | 4        |                              |       |        | 7         | 16        |
| <b>Total</b>     |                              |       |        | <b>13</b> |                 |       |        | <b>5</b> |                              |       |        | <b>14</b> | <b>32</b> |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Articulated Trucks**

|                    | Washington Street (Route 16) |          |          |          | Highland Street |          |          |          | Washington Street (Route 16) |          |          |          | Total    |          |
|--------------------|------------------------------|----------|----------|----------|-----------------|----------|----------|----------|------------------------------|----------|----------|----------|----------|----------|
|                    | from East                    |          |          |          | from South      |          |          |          | from West                    |          |          |          |          |          |
|                    | Thru                         | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    |          |          |
| 4:00 PM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 1        | 0        | 1        | 1        |
| 4:15 PM            | 0                            | 0        | 0        | 0        | 0               | 1        | 0        | 1        | 0                            | 0        | 1        | 0        | 1        | 2        |
| 4:30 PM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 1        | 0        | 1        | 1        |
| 4:45 PM            | 1                            | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 1        |
| <b>Total</b>       | <b>1</b>                     | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>        | <b>1</b> | <b>0</b> | <b>1</b> | <b>0</b>                     | <b>0</b> | <b>3</b> | <b>0</b> | <b>3</b> | <b>5</b> |
| 5:00 PM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        |
| 5:15 PM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        |
| 5:30 PM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 1        | 0        | 1        | 1        |
| 5:45 PM            | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        |
| <b>Total</b>       | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>0</b> | <b>1</b> | <b>0</b> | <b>1</b> | <b>1</b> |
| <b>Grand Total</b> | <b>1</b>                     | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>        | <b>1</b> | <b>0</b> | <b>1</b> | <b>0</b>                     | <b>0</b> | <b>4</b> | <b>0</b> | <b>4</b> | <b>6</b> |
| Approach %         | 100.0                        | 0.0      | 0.0      |          | 0.0             | 100.0    | 0.0      |          | 0.0                          | 100.0    | 0.0      |          |          |          |
| Total %            | 16.7                         | 0.0      | 0.0      | 16.7     | 0.0             | 16.7     | 0.0      | 16.7     | 0.0                          | 66.7     | 0.0      |          | 66.7     |          |
| Exiting Leg Total  |                              |          |          | 4        |                 |          |          | 0        |                              |          |          |          | 2        | 6        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM             | Washington Street (Route 16) |          |          |          | Highland Street |          |          |          | Washington Street (Route 16) |          |          |          | Total    |           |
|---------------------|------------------------------|----------|----------|----------|-----------------|----------|----------|----------|------------------------------|----------|----------|----------|----------|-----------|
|                     | from East                    |          |          |          | from South      |          |          |          | from West                    |          |          |          |          |           |
|                     | Thru                         | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    |          |           |
| 4:00 PM             | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 1        | 0        | 1        | 1         |
| 4:15 PM             | 0                            | 0        | 0        | 0        | 0               | 1        | 0        | 1        | 0                            | 0        | 1        | 0        | 1        | 2         |
| 4:30 PM             | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 1        | 0        | 1        | 1         |
| 4:45 PM             | 1                            | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 1         |
| <b>Total Volume</b> | <b>1</b>                     | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>        | <b>1</b> | <b>0</b> | <b>1</b> | <b>0</b>                     | <b>0</b> | <b>3</b> | <b>0</b> | <b>3</b> | <b>5</b>  |
| % Approach Total    | 100.0                        | 0.0      | 0.0      |          | 0.0             | 100.0    | 0.0      |          | 0.0                          | 100.0    | 0.0      |          |          |           |
| PHF                 | 0.250                        | 0.000    | 0.000    | 0.250    | 0.000           | 0.250    | 0.000    | 0.250    | 0.000                        | 0.750    | 0.000    |          | 0.750    | 0.625     |
| Entering Leg        | 1                            | 0        | 0        | 1        | 0               | 1        | 0        | 1        | 0                            | 0        | 3        | 0        | 3        | 5         |
| Exiting Leg         |                              |          |          | 3        |                 |          |          | 0        |                              |          |          |          | 2        | 5         |
| <b>Total</b>        |                              |          |          | <b>4</b> |                 |          |          | <b>1</b> |                              |          |          |          | <b>5</b> | <b>10</b> |



PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class: **Bicycles (on Roadway and Crosswalks)**



**Bicycles (on Roadway and Crosswalks)**

|                   | Washington Street (Route 16) |       |        |       |       |       |   | Highland Street |      |        |       |       |       | Washington Street (Route 16) |       |      |        |       |       | Total |       |   |   |
|-------------------|------------------------------|-------|--------|-------|-------|-------|---|-----------------|------|--------|-------|-------|-------|------------------------------|-------|------|--------|-------|-------|-------|-------|---|---|
|                   | from East                    |       |        |       |       |       |   | from South      |      |        |       |       |       | from West                    |       |      |        |       |       |       |       |   |   |
|                   | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total |   | Right           | Left | U-Turn | CW-WB | CW-EB | Total |                              | Right | Thru | U-Turn | CW-NB | CW-SB |       | Total |   |   |
| 4:00 PM           | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| 4:15 PM           | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| 4:30 PM           | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| 4:45 PM           | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| Total             | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| 5:00 PM           | 0                            | 1     | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 1 |
| 5:15 PM           | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| 5:30 PM           | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| 5:45 PM           | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| Total             | 0                            | 1     | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 1 |
| Grand Total       | 0                            | 1     | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 | 1 |
| Approach %        | 0.0                          | 100.0 | 0.0    | 0.0   | 0.0   | 0.0   |   | 0.0             | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   |       |   |   |
| Total %           | 0.0                          | 100.0 | 0.0    | 0.0   | 0.0   | 100.0 |   | 0.0             | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   |       |   |   |
| Exiting Leg Total | 0                            |       |        |       |       |       |   | 1               |      |        |       |       |       | 0                            |       |      |        |       |       | 1     |       |   |   |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:15 PM          | Washington Street (Route 16) |       |        |       |       |       |   | Highland Street |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       | Total |       |   |   |
|------------------|------------------------------|-------|--------|-------|-------|-------|---|-----------------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|---|---|
|                  | from East                    |       |        |       |       |       |   | from South      |       |        |       |       |       | from West                    |       |       |        |       |       |       |       |   |   |
|                  | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total |   | Right           | Left  | U-Turn | CW-WB | CW-EB | Total |                              | Right | Thru  | U-Turn | CW-NB | CW-SB |       | Total |   |   |
| 4:15 PM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| 4:30 PM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| 4:45 PM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0 | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0 | 0 |
| 5:00 PM          | 0                            | 1     | 0      | 0     | 0     | 0     | 1 | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0 | 1 |
| Total Volume     | 0                            | 1     | 0      | 0     | 0     | 0     | 1 | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0 | 1 |
| % Approach Total | 0.0                          | 100.0 | 0.0    | 0.0   | 0.0   | 0.0   |   | 0.0             | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   |       |   |   |
| PHF              | 0.000                        | 0.250 | 0.000  | 0.000 | 0.000 | 0.250 |   | 0.000           | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.250 |       |   |   |
| Entering Leg     | 0                            | 1     | 0      | 0     | 0     | 1     |   | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     |       | 1 |   |
| Exiting Leg      | 0                            |       |        |       |       |       |   | 1               |       |        |       |       |       | 0                            |       |       |        |       |       | 1     |       |   |   |
| Total            | 1                            |       |        |       |       |       |   | 1               |       |        |       |       |       | 0                            |       |       |        |       |       | 2     |       |   |   |

PDI File #: **228414 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Pedestrians**

|                   | Washington Street (Route 16) |      |        |        |        |        | Highland Street |      |        |        |        |        | Washington Street (Route 16) |      |        |        |       |        | Total |
|-------------------|------------------------------|------|--------|--------|--------|--------|-----------------|------|--------|--------|--------|--------|------------------------------|------|--------|--------|-------|--------|-------|
|                   | from East                    |      |        |        |        |        | from South      |      |        |        |        |        | from West                    |      |        |        |       |        |       |
|                   | Thru                         | Left | U-Turn | CW-SB  | CW-NB  | Total  | Right           | Left | U-Turn | CW-WB  | CW-EB  | Total  | Right                        | Thru | U-Turn | CW-NB  | CW-SB | Total  |       |
| 4:00 PM           | 0                            | 0    | 0      | 0      | 1      | 1      | 0               | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 0     | 0      | 1     |
| 4:15 PM           | 0                            | 0    | 0      | 1      | 0      | 1      | 0               | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 0     | 0      | 1     |
| 4:30 PM           | 0                            | 0    | 0      | 0      | 1      | 1      | 0               | 0    | 0      | 1      | 0      | 1      | 0                            | 0    | 0      | 0      | 0     | 0      | 2     |
| 4:45 PM           | 0                            | 0    | 0      | 1      | 0      | 1      | 0               | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 0     | 0      | 1     |
| Total             | 0                            | 0    | 0      | 2      | 2      | 4      | 0               | 0    | 0      | 1      | 0      | 1      | 0                            | 0    | 0      | 0      | 0     | 0      | 5     |
| 5:00 PM           | 0                            | 0    | 0      | 0      | 1      | 1      | 0               | 0    | 0      | 0      | 4      | 4      | 0                            | 0    | 0      | 0      | 0     | 0      | 5     |
| 5:15 PM           | 0                            | 0    | 0      | 2      | 0      | 2      | 0               | 0    | 0      | 4      | 5      | 9      | 0                            | 0    | 0      | 0      | 0     | 0      | 11    |
| 5:30 PM           | 0                            | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 2      | 2      | 0                            | 0    | 0      | 2      | 0     | 2      | 4     |
| 5:45 PM           | 0                            | 0    | 0      | 0      | 2      | 2      | 0               | 0    | 0      | 1      | 0      | 1      | 0                            | 0    | 0      | 0      | 0     | 0      | 3     |
| Total             | 0                            | 0    | 0      | 2      | 3      | 5      | 0               | 0    | 0      | 5      | 11     | 16     | 0                            | 0    | 0      | 2      | 0     | 2      | 23    |
| Grand Total       | 0                            | 0    | 0      | 4      | 5      | 9      | 0               | 0    | 0      | 6      | 11     | 17     | 0                            | 0    | 0      | 2      | 0     | 2      | 28    |
| Approach %        | 0                            | 0    | 0      | 44.444 | 55.556 |        | 0               | 0    | 0      | 35.294 | 64.706 |        | 0                            | 0    | 0      | 100    | 0     |        |       |
| Total %           | 0                            | 0    | 0      | 14.286 | 17.857 | 32.143 | 0               | 0    | 0      | 21.429 | 39.286 | 60.714 | 0                            | 0    | 0      | 7.1429 | 0     | 7.1429 |       |
| Exiting Leg Total | 9                            |      |        |        |        |        | 17              |      |        |        |        |        | 2                            |      |        |        |       |        | 28    |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Washington Street (Route 16) |       |        |       |       |       | Highland Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|------------------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from East                    |       |        |       |       |       | from South      |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 5:00 PM          | 0                            | 0     | 0      | 0     | 1     | 1     | 0               | 0     | 0      | 0     | 4     | 4     | 0                            | 0     | 0      | 0     | 0     | 0     | 5     |
| 5:15 PM          | 0                            | 0     | 0      | 2     | 0     | 2     | 0               | 0     | 0      | 4     | 5     | 9     | 0                            | 0     | 0      | 0     | 0     | 0     | 11    |
| 5:30 PM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 2     | 2     | 0                            | 0     | 0      | 2     | 0     | 2     | 4     |
| 5:45 PM          | 0                            | 0     | 0      | 0     | 2     | 2     | 0               | 0     | 0      | 1     | 0     | 1     | 0                            | 0     | 0      | 0     | 0     | 0     | 3     |
| Total Volume     | 0                            | 0     | 0      | 2     | 3     | 5     | 0               | 0     | 0      | 5     | 11    | 16    | 0                            | 0     | 0      | 2     | 0     | 2     | 23    |
| % Approach Total | 0.0                          | 0.0   | 0.0    | 40.0  | 60.0  |       | 0.0             | 0.0   | 0.0    | 31.3  | 68.8  |       | 0.0                          | 0.0   | 0.0    | 100.0 | 0.0   |       |       |
| PHF              | 0.000                        | 0.000 | 0.000  | 0.250 | 0.375 | 0.625 | 0.000           | 0.000 | 0.000  | 0.313 | 0.550 | 0.444 | 0.000                        | 0.000 | 0.000  | 0.250 | 0.000 | 0.250 | 0.523 |
| Entering Leg     | 0                            | 0     | 0      | 2     | 3     | 5     | 0               | 0     | 0      | 5     | 11    | 16    | 0                            | 0     | 0      | 2     | 0     | 2     | 23    |
| Exiting Leg      | 5                            |       |        |       |       |       | 16              |       |        |       |       |       | 2                            |       |        |       |       |       | 23    |
| Total            | 10                           |       |        |       |       |       | 32              |       |        |       |       |       | 4                            |       |        |       |       |       | 46    |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street |           |       |        |       | Total |
|-------------------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|-------------------|-----------|-------|--------|-------|-------|
|                   | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West         |           |       |        |       |       |
|                   | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |
| 7:00 AM           | 26             | 0    | 0         | 0      | 26    | 6                           | 19         | 0         | 0      | 25    | 0                 | 11    | 22   | 0      | 33    | 52                | 54        | 0     | 0      | 106   | 190   |
| 7:15 AM           | 21             | 0    | 0         | 0      | 21    | 4                           | 52         | 0         | 0      | 56    | 0                 | 12    | 33   | 0      | 45    | 79                | 67        | 2     | 0      | 148   | 270   |
| 7:30 AM           | 37             | 0    | 0         | 0      | 37    | 11                          | 43         | 0         | 0      | 54    | 0                 | 13    | 31   | 0      | 44    | 131               | 77        | 2     | 0      | 210   | 345   |
| 7:45 AM           | 56             | 0    | 0         | 0      | 56    | 18                          | 61         | 0         | 0      | 79    | 0                 | 27    | 43   | 0      | 70    | 124               | 81        | 2     | 0      | 207   | 412   |
| <b>Total</b>      | 140            | 0    | 0         | 0      | 140   | 39                          | 175        | 0         | 0      | 214   | 0                 | 63    | 129  | 0      | 192   | 386               | 279       | 6     | 0      | 671   | 1217  |
| 8:00 AM           | 44             | 0    | 0         | 0      | 44    | 13                          | 55         | 0         | 0      | 68    | 0                 | 18    | 38   | 0      | 56    | 106               | 75        | 2     | 0      | 183   | 351   |
| 8:15 AM           | 29             | 0    | 0         | 0      | 29    | 6                           | 53         | 0         | 0      | 59    | 0                 | 23    | 43   | 0      | 66    | 117               | 82        | 1     | 0      | 200   | 354   |
| 8:30 AM           | 42             | 0    | 0         | 0      | 42    | 3                           | 43         | 0         | 0      | 46    | 0                 | 19    | 41   | 0      | 60    | 107               | 66        | 1     | 0      | 174   | 322   |
| 8:45 AM           | 36             | 0    | 0         | 0      | 36    | 6                           | 39         | 0         | 0      | 45    | 0                 | 19    | 45   | 0      | 64    | 143               | 80        | 0     | 0      | 223   | 368   |
| <b>Total</b>      | 151            | 0    | 0         | 0      | 151   | 28                          | 190        | 0         | 0      | 218   | 0                 | 79    | 167  | 0      | 246   | 473               | 303       | 4     | 0      | 780   | 1395  |
| Grand Total       | 291            | 0    | 0         | 0      | 291   | 67                          | 365        | 0         | 0      | 432   | 0                 | 142   | 296  | 0      | 438   | 859               | 582       | 10    | 0      | 1451  | 2612  |
| Approach %        | 100.0          | 0.0  | 0.0       | 0.0    |       | 15.5                        | 84.5       | 0.0       | 0.0    |       | 0.0               | 32.4  | 67.6 | 0.0    |       | 59.2              | 40.1      | 0.7   | 0.0    |       |       |
| Total %           | 11.1           | 0.0  | 0.0       | 0.0    | 11.1  | 2.6                         | 14.0       | 0.0       | 0.0    | 16.5  | 0.0               | 5.4   | 11.3 | 0.0    | 16.8  | 32.9              | 22.3      | 0.4   | 0.0    | 55.6  |       |
| Exiting Leg Total | 219            |      |           |        |       | 582                         |            |           |        |       | 859               |       |      |        |       | 952               |           |       |        |       | 2612  |
| Cars              | 284            | 0    | 0         | 0      | 284   | 65                          | 347        | 0         | 0      | 412   | 0                 | 139   | 282  | 0      | 421   | 834               | 565       | 10    | 0      | 1409  | 2526  |
| % Cars            | 97.6           | 0.0  | 0.0       | 0.0    | 97.6  | 97.0                        | 95.1       | 0.0       | 0.0    | 95.4  | 0.0               | 97.9  | 95.3 | 0.0    | 96.1  | 97.1              | 97.1      | 100.0 | 0.0    | 97.1  | 96.7  |
| Exiting Leg Total | 214            |      |           |        |       | 565                         |            |           |        |       | 834               |       |      |        |       | 913               |           |       |        |       | 2526  |
| Heavy Vehicles    | 7              | 0    | 0         | 0      | 7     | 2                           | 18         | 0         | 0      | 20    | 0                 | 3     | 14   | 0      | 17    | 25                | 17        | 0     | 0      | 42    | 86    |
| % Heavy Vehicles  | 2.4            | 0.0  | 0.0       | 0.0    | 2.4   | 3.0                         | 4.9        | 0.0       | 0.0    | 4.6   | 0.0               | 2.1   | 4.7  | 0.0    | 3.9   | 2.9               | 2.9       | 0.0   | 0.0    | 2.9   | 3.3   |
| Exiting Leg Total | 5              |      |           |        |       | 17                          |            |           |        |       | 25                |       |      |        |       | 39                |           |       |        |       | 86    |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                    | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |       |        |       | Total |
|--------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|-------|--------|-------|-------|
|                    | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |       |        |       |       |
|                    | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |
| 7:30 AM            | 37             | 0     | 0         | 0      | 37    | 11                          | 43         | 0         | 0      | 54    | 0                 | 13    | 31    | 0      | 44    | 131               | 77        | 2     | 0      | 210   | 345   |
| 7:45 AM            | 56             | 0     | 0         | 0      | 56    | 18                          | 61         | 0         | 0      | 79    | 0                 | 27    | 43    | 0      | 70    | 124               | 81        | 2     | 0      | 207   | 412   |
| 8:00 AM            | 44             | 0     | 0         | 0      | 44    | 13                          | 55         | 0         | 0      | 68    | 0                 | 18    | 38    | 0      | 56    | 106               | 75        | 2     | 0      | 183   | 351   |
| 8:15 AM            | 29             | 0     | 0         | 0      | 29    | 6                           | 53         | 0         | 0      | 59    | 0                 | 23    | 43    | 0      | 66    | 117               | 82        | 1     | 0      | 200   | 354   |
| Total Volume       | 166            | 0     | 0         | 0      | 166   | 48                          | 212        | 0         | 0      | 260   | 0                 | 81    | 155   | 0      | 236   | 478               | 315       | 7     | 0      | 800   | 1462  |
| % Approach Total   | 100.0          | 0.0   | 0.0       | 0.0    |       | 18.5                        | 81.5       | 0.0       | 0.0    |       | 0.0               | 34.3  | 65.7  | 0.0    |       | 59.8              | 39.4      | 0.9   | 0.0    |       |       |
| PHF                | 0.741          | 0.000 | 0.000     | 0.000  | 0.741 | 0.667                       | 0.869      | 0.000     | 0.000  | 0.823 | 0.000             | 0.750 | 0.901 | 0.000  | 0.843 | 0.912             | 0.960     | 0.875 | 0.000  | 0.952 | 0.887 |
| Cars               | 162            | 0     | 0         | 0      | 162   | 47                          | 200        | 0         | 0      | 247   | 0                 | 78    | 151   | 0      | 229   | 465               | 308       | 7     | 0      | 780   | 1418  |
| Cars %             | 97.6           | 0.0   | 0.0       | 0.0    | 97.6  | 97.9                        | 94.3       | 0.0       | 0.0    | 95.0  | 0.0               | 96.3  | 97.4  | 0.0    | 97.0  | 97.3              | 97.8      | 100.0 | 0.0    | 97.5  | 97.0  |
| Heavy Vehicles     | 4              | 0     | 0         | 0      | 4     | 1                           | 12         | 0         | 0      | 13    | 0                 | 3     | 4     | 0      | 7     | 13                | 7         | 0     | 0      | 20    | 44    |
| Heavy Vehicles %   | 2.4            | 0.0   | 0.0       | 0.0    | 2.4   | 2.1                         | 5.7        | 0.0       | 0.0    | 5.0   | 0.0               | 3.7   | 2.6   | 0.0    | 3.0   | 2.7               | 2.2       | 0.0   | 0.0    | 2.5   | 3.0   |
| Cars Enter Leg     | 162            | 0     | 0         | 0      | 162   | 47                          | 200        | 0         | 0      | 247   | 0                 | 78    | 151   | 0      | 229   | 465               | 308       | 7     | 0      | 780   | 1418  |
| Heavy Enter Leg    | 4              | 0     | 0         | 0      | 4     | 1                           | 12         | 0         | 0      | 13    | 0                 | 3     | 4     | 0      | 7     | 13                | 7         | 0     | 0      | 20    | 44    |
| Total Entering Leg | 166            | 0     | 0         | 0      | 166   | 48                          | 212        | 0         | 0      | 260   | 0                 | 81    | 155   | 0      | 236   | 478               | 315       | 7     | 0      | 800   | 1462  |
| Cars Exiting Leg   | 132            |       |           |        |       | 308                         |            |           |        |       | 465               |       |       |        |       | 513               |           |       |        |       | 1418  |
| Heavy Exiting Leg  | 4              |       |           |        |       | 7                           |            |           |        |       | 13                |       |       |        |       | 20                |           |       |        |       | 44    |
| Total Exiting Leg  | 136            |       |           |        |       | 315                         |            |           |        |       | 478               |       |       |        |       | 533               |           |       |        |       | 1462  |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class: **Cars**



|                   | Waltham Street |          |           |          |            | Watertown Street (Route 16) |            |           |          |            | Washington Street |           |            |          |            | Washington Street |            |          |          |            | Total       |  |  |  |  |      |
|-------------------|----------------|----------|-----------|----------|------------|-----------------------------|------------|-----------|----------|------------|-------------------|-----------|------------|----------|------------|-------------------|------------|----------|----------|------------|-------------|--|--|--|--|------|
|                   | from North     |          |           |          |            | from Northeast              |            |           |          |            | from East         |           |            |          |            | from West         |            |          |          |            |             |  |  |  |  |      |
|                   | Right          | Left     | Hard Left | U-Turn   | Total      | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total      | Hard Right        | Right     | Thru       | U-Turn   | Total      | Thru              | Bear Left  | Left     | U-Turn   | Total      |             |  |  |  |  |      |
| 7:00 AM           | 25             | 0        | 0         | 0        | 25         | 6                           | 18         | 0         | 0        | 24         | 0                 | 11        | 21         | 0        | 32         | 50                | 50         | 0        | 0        | 100        | 181         |  |  |  |  |      |
| 7:15 AM           | 20             | 0        | 0         | 0        | 20         | 4                           | 50         | 0         | 0        | 54         | 0                 | 12        | 29         | 0        | 41         | 76                | 65         | 2        | 0        | 143        | 258         |  |  |  |  |      |
| 7:30 AM           | 34             | 0        | 0         | 0        | 34         | 11                          | 39         | 0         | 0        | 50         | 0                 | 13        | 30         | 0        | 43         | 128               | 73         | 2        | 0        | 203        | 330         |  |  |  |  |      |
| 7:45 AM           | 56             | 0        | 0         | 0        | 56         | 18                          | 58         | 0         | 0        | 76         | 0                 | 27        | 42         | 0        | 69         | 123               | 79         | 2        | 0        | 204        | 405         |  |  |  |  |      |
| <b>Total</b>      | <b>135</b>     | <b>0</b> | <b>0</b>  | <b>0</b> | <b>135</b> | <b>39</b>                   | <b>165</b> | <b>0</b>  | <b>0</b> | <b>204</b> | <b>0</b>          | <b>63</b> | <b>122</b> | <b>0</b> | <b>185</b> | <b>377</b>        | <b>267</b> | <b>6</b> | <b>0</b> | <b>650</b> | <b>1174</b> |  |  |  |  |      |
| 8:00 AM           | 44             | 0        | 0         | 0        | 44         | 12                          | 52         | 0         | 0        | 64         | 0                 | 16        | 36         | 0        | 52         | 101               | 75         | 2        | 0        | 178        | 338         |  |  |  |  |      |
| 8:15 AM           | 28             | 0        | 0         | 0        | 28         | 6                           | 51         | 0         | 0        | 57         | 0                 | 22        | 43         | 0        | 65         | 113               | 81         | 1        | 0        | 195        | 345         |  |  |  |  |      |
| 8:30 AM           | 42             | 0        | 0         | 0        | 42         | 3                           | 42         | 0         | 0        | 45         | 0                 | 19        | 39         | 0        | 58         | 102               | 64         | 1        | 0        | 167        | 312         |  |  |  |  |      |
| 8:45 AM           | 35             | 0        | 0         | 0        | 35         | 5                           | 37         | 0         | 0        | 42         | 0                 | 19        | 42         | 0        | 61         | 141               | 78         | 0        | 0        | 219        | 357         |  |  |  |  |      |
| <b>Total</b>      | <b>149</b>     | <b>0</b> | <b>0</b>  | <b>0</b> | <b>149</b> | <b>26</b>                   | <b>182</b> | <b>0</b>  | <b>0</b> | <b>208</b> | <b>0</b>          | <b>76</b> | <b>160</b> | <b>0</b> | <b>236</b> | <b>457</b>        | <b>298</b> | <b>4</b> | <b>0</b> | <b>759</b> | <b>1352</b> |  |  |  |  |      |
| Grand Total       | 284            | 0        | 0         | 0        | 284        | 65                          | 347        | 0         | 0        | 412        | 0                 | 139       | 282        | 0        | 421        | 834               | 565        | 10       | 0        | 1409       | 2526        |  |  |  |  |      |
| Approach %        | 100.0          | 0.0      | 0.0       | 0.0      |            | 15.8                        | 84.2       | 0.0       | 0.0      |            | 0.0               | 33.0      | 67.0       | 0.0      |            | 59.2              | 40.1       | 0.7      | 0.0      |            |             |  |  |  |  |      |
| Total %           | 11.2           | 0.0      | 0.0       | 0.0      | 11.2       | 2.6                         | 13.7       | 0.0       | 0.0      | 16.3       | 0.0               | 5.5       | 11.2       | 0.0      | 16.7       | 33.0              | 22.4       | 0.4      | 0.0      | 55.8       |             |  |  |  |  |      |
| Exiting Leg Total |                |          |           |          |            | 214                         |            |           |          |            | 565               |           |            |          |            | 834               |            |          |          |            | 913         |  |  |  |  | 2526 |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |       |        |       | Total |  |  |  |  |      |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|-------|--------|-------|-------|--|--|--|--|------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |       |        |       |       |  |  |  |  |      |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |  |  |  |  |      |
| 7:30 AM          | 34             | 0     | 0         | 0      | 34    | 11                          | 39         | 0         | 0      | 50    | 0                 | 13    | 30    | 0      | 43    | 128               | 73        | 2     | 0      | 203   | 330   |  |  |  |  |      |
| 7:45 AM          | 56             | 0     | 0         | 0      | 56    | 18                          | 58         | 0         | 0      | 76    | 0                 | 27    | 42    | 0      | 69    | 123               | 79        | 2     | 0      | 204   | 405   |  |  |  |  |      |
| 8:00 AM          | 44             | 0     | 0         | 0      | 44    | 12                          | 52         | 0         | 0      | 64    | 0                 | 16    | 36    | 0      | 52    | 101               | 75        | 2     | 0      | 178   | 338   |  |  |  |  |      |
| 8:15 AM          | 28             | 0     | 0         | 0      | 28    | 6                           | 51         | 0         | 0      | 57    | 0                 | 22    | 43    | 0      | 65    | 113               | 81        | 1     | 0      | 195   | 345   |  |  |  |  |      |
| Total Volume     | 162            | 0     | 0         | 0      | 162   | 47                          | 200        | 0         | 0      | 247   | 0                 | 78    | 151   | 0      | 229   | 465               | 308       | 7     | 0      | 780   | 1418  |  |  |  |  |      |
| % Approach Total | 100.0          | 0.0   | 0.0       | 0.0    |       | 19.0                        | 81.0       | 0.0       | 0.0    |       | 0.0               | 34.1  | 65.9  | 0.0    |       | 59.6              | 39.5      | 0.9   | 0.0    |       |       |  |  |  |  |      |
| PHF              | 0.723          | 0.000 | 0.000     | 0.000  | 0.723 | 0.653                       | 0.862      | 0.000     | 0.000  | 0.813 | 0.000             | 0.722 | 0.878 | 0.000  | 0.830 | 0.908             | 0.951     | 0.875 | 0.000  | 0.956 | 0.875 |  |  |  |  |      |
| Entering Leg     | 162            | 0     | 0         | 0      | 162   | 47                          | 200        | 0         | 0      | 247   | 0                 | 78    | 151   | 0      | 229   | 465               | 308       | 7     | 0      | 780   | 1418  |  |  |  |  |      |
| Exiting Leg      |                |       |           |        |       | 132                         |            |           |        |       | 308               |       |       |        |       | 465               |           |       |        |       | 513   |  |  |  |  | 1418 |
| Total            |                |       |           |        |       | 294                         |            |           |        |       | 555               |       |       |        |       | 694               |           |       |        |       | 1293  |  |  |  |  | 2836 |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



|                    | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |           | Washington Street |          |          |          |           | Washington Street |           |          |          |           | Total     |
|--------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|-----------|-------------------|----------|----------|----------|-----------|-------------------|-----------|----------|----------|-----------|-----------|
|                    | from North     |          |           |          |          | from Northeast              |            |           |          |           | from East         |          |          |          |           | from West         |           |          |          |           |           |
|                    | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total     | Hard Right        | Right    | Thru     | U-Turn   | Total     | Thru              | Bear Left | Left     | U-Turn   | Total     |           |
| 7:00 AM            | 1              | 0        | 0         | 0        | 1        | 0                           | 1          | 0         | 0        | 1         | 0                 | 0        | 1        | 0        | 1         | 2                 | 4         | 0        | 0        | 6         | 9         |
| 7:15 AM            | 1              | 0        | 0         | 0        | 1        | 0                           | 2          | 0         | 0        | 2         | 0                 | 0        | 4        | 0        | 4         | 3                 | 2         | 0        | 0        | 5         | 12        |
| 7:30 AM            | 3              | 0        | 0         | 0        | 3        | 0                           | 4          | 0         | 0        | 4         | 0                 | 0        | 1        | 0        | 1         | 3                 | 4         | 0        | 0        | 7         | 15        |
| 7:45 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 3          | 0         | 0        | 3         | 0                 | 0        | 1        | 0        | 1         | 1                 | 2         | 0        | 0        | 3         | 7         |
| <b>Total</b>       | <b>5</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>5</b> | <b>0</b>                    | <b>10</b>  | <b>0</b>  | <b>0</b> | <b>10</b> | <b>0</b>          | <b>0</b> | <b>7</b> | <b>0</b> | <b>7</b>  | <b>9</b>          | <b>12</b> | <b>0</b> | <b>0</b> | <b>21</b> | <b>43</b> |
| 8:00 AM            | 0              | 0        | 0         | 0        | 0        | 1                           | 3          | 0         | 0        | 4         | 0                 | 2        | 2        | 0        | 4         | 5                 | 0         | 0        | 0        | 5         | 13        |
| 8:15 AM            | 1              | 0        | 0         | 0        | 1        | 0                           | 2          | 0         | 0        | 2         | 0                 | 1        | 0        | 0        | 1         | 4                 | 1         | 0        | 0        | 5         | 9         |
| 8:30 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1         | 0                 | 0        | 2        | 0        | 2         | 5                 | 2         | 0        | 0        | 7         | 10        |
| 8:45 AM            | 1              | 0        | 0         | 0        | 1        | 1                           | 2          | 0         | 0        | 3         | 0                 | 0        | 3        | 0        | 3         | 2                 | 2         | 0        | 0        | 4         | 11        |
| <b>Total</b>       | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>2</b>                    | <b>8</b>   | <b>0</b>  | <b>0</b> | <b>10</b> | <b>0</b>          | <b>3</b> | <b>7</b> | <b>0</b> | <b>10</b> | <b>16</b>         | <b>5</b>  | <b>0</b> | <b>0</b> | <b>21</b> | <b>43</b> |
| Grand Total        | 7              | 0        | 0         | 0        | 7        | 2                           | 18         | 0         | 0        | 20        | 0                 | 3        | 14       | 0        | 17        | 25                | 17        | 0        | 0        | 42        | 86        |
| Approach %         | 100.0          | 0.0      | 0.0       | 0.0      |          | 10.0                        | 90.0       | 0.0       | 0.0      |           | 0.0               | 17.6     | 82.4     | 0.0      |           | 59.5              | 40.5      | 0.0      | 0.0      |           |           |
| Total %            | 8.1            | 0.0      | 0.0       | 0.0      | 8.1      | 2.3                         | 20.9       | 0.0       | 0.0      | 23.3      | 0.0               | 3.5      | 16.3     | 0.0      | 19.8      | 29.1              | 19.8      | 0.0      | 0.0      | 48.8      |           |
| Exiting Leg Total  | 5              |          |           |          |          | 17                          |            |           |          |           | 25                |          |          |          |           | 39                |           |          |          |           | 86        |
| Buses              | 2              | 0        | 0         | 0        | 2        | 0                           | 2          | 0         | 0        | 2         | 0                 | 0        | 5        | 0        | 5         | 7                 | 1         | 0        | 0        | 8         | 17        |
| % Buses            | 28.6           | 0.0      | 0.0       | 0.0      | 28.6     | 0.0                         | 11.1       | 0.0       | 0.0      | 10.0      | 0.0               | 0.0      | 35.7     | 0.0      | 29.4      | 28.0              | 5.9       | 0.0      | 0.0      | 19.0      | 19.8      |
| Exiting Leg Total  | 0              |          |           |          |          | 1                           |            |           |          |           | 7                 |          |          |          |           | 9                 |           |          |          |           | 17        |
| Single-Unit Trucks | 4              | 0        | 0         | 0        | 4        | 1                           | 13         | 0         | 0        | 14        | 0                 | 3        | 7        | 0        | 10        | 17                | 13        | 0        | 0        | 30        | 58        |
| % Single-Unit      | 57.1           | 0.0      | 0.0       | 0.0      | 57.1     | 50.0                        | 72.2       | 0.0       | 0.0      | 70.0      | 0.0               | 100.0    | 50.0     | 0.0      | 58.8      | 68.0              | 76.5      | 0.0      | 0.0      | 71.4      | 67.4      |
| Exiting Leg Total  | 4              |          |           |          |          | 13                          |            |           |          |           | 17                |          |          |          |           | 24                |           |          |          |           | 58        |
| Articulated Trucks | 1              | 0        | 0         | 0        | 1        | 1                           | 3          | 0         | 0        | 4         | 0                 | 0        | 2        | 0        | 2         | 1                 | 3         | 0        | 0        | 4         | 11        |
| % Articulated      | 14.3           | 0.0      | 0.0       | 0.0      | 14.3     | 50.0                        | 16.7       | 0.0       | 0.0      | 20.0      | 0.0               | 0.0      | 14.3     | 0.0      | 11.8      | 4.0               | 17.6      | 0.0      | 0.0      | 9.5       | 12.8      |
| Exiting Leg Total  | 1              |          |           |          |          | 3                           |            |           |          |           | 1                 |          |          |          |           | 6                 |           |          |          |           | 11        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                    | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |       |        |       | Total |
|--------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|-------|--------|-------|-------|
|                    | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |       |        |       |       |
|                    | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |
| 7:15 AM            | 1              | 0     | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 4     | 0      | 4     | 3                 | 2         | 0     | 0      | 5     | 12    |
| 7:30 AM            | 3              | 0     | 0         | 0      | 3     | 0                           | 4          | 0         | 0      | 4     | 0                 | 0     | 1     | 0      | 1     | 3                 | 4         | 0     | 0      | 7     | 15    |
| 7:45 AM            | 0              | 0     | 0         | 0      | 0     | 0                           | 3          | 0         | 0      | 3     | 0                 | 0     | 1     | 0      | 1     | 1                 | 2         | 0     | 0      | 3     | 7     |
| 8:00 AM            | 0              | 0     | 0         | 0      | 0     | 1                           | 3          | 0         | 0      | 4     | 0                 | 2     | 2     | 0      | 4     | 5                 | 0         | 0     | 0      | 5     | 13    |
| Total Volume       | 4              | 0     | 0         | 0      | 4     | 1                           | 12         | 0         | 0      | 13    | 0                 | 2     | 8     | 0      | 10    | 12                | 8         | 0     | 0      | 20    | 47    |
| % Approach Total   | 100.0          | 0.0   | 0.0       | 0.0    |       | 7.7                         | 92.3       | 0.0       | 0.0    |       | 0.0               | 20.0  | 80.0  | 0.0    |       | 60.0              | 40.0      | 0.0   | 0.0    |       |       |
| PHF                | 0.333          | 0.000 | 0.000     | 0.000  | 0.333 | 0.250                       | 0.750      | 0.000     | 0.000  | 0.813 | 0.000             | 0.250 | 0.500 | 0.000  | 0.625 | 0.600             | 0.500     | 0.000 | 0.000  | 0.714 | 0.783 |
| Buses              | 2              | 0     | 0         | 0      | 2     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 2     | 0      | 2     | 2                 | 1         | 0     | 0      | 3     | 9     |
| Buses %            | 50.0           | 0.0   | 0.0       | 0.0    | 50.0  | 0.0                         | 16.7       | 0.0       | 0.0    | 15.4  | 0.0               | 0.0   | 25.0  | 0.0    | 20.0  | 16.7              | 12.5      | 0.0   | 0.0    | 15.0  | 19.1  |
| Single-Unit Trucks | 2              | 0     | 0         | 0      | 2     | 0                           | 8          | 0         | 0      | 8     | 0                 | 2     | 4     | 0      | 6     | 9                 | 6         | 0     | 0      | 15    | 31    |
| Single-Unit %      | 50.0           | 0.0   | 0.0       | 0.0    | 50.0  | 0.0                         | 66.7       | 0.0       | 0.0    | 61.5  | 0.0               | 100.0 | 50.0  | 0.0    | 60.0  | 75.0              | 75.0      | 0.0   | 0.0    | 75.0  | 66.0  |
| Articulated Trucks | 0              | 0     | 0         | 0      | 0     | 1                           | 2          | 0         | 0      | 3     | 0                 | 0     | 2     | 0      | 2     | 1                 | 1         | 0     | 0      | 2     | 7     |
| Articulated %      | 0.0            | 0.0   | 0.0       | 0.0    | 0.0   | 100.0                       | 16.7       | 0.0       | 0.0    | 23.1  | 0.0               | 0.0   | 25.0  | 0.0    | 20.0  | 8.3               | 12.5      | 0.0   | 0.0    | 10.0  | 14.9  |
| Buses              | 2              | 0     | 0         | 0      | 2     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 2     | 0      | 2     | 2                 | 1         | 0     | 0      | 3     | 9     |
| Single-Unit Trucks | 2              | 0     | 0         | 0      | 2     | 0                           | 8          | 0         | 0      | 8     | 0                 | 2     | 4     | 0      | 6     | 9                 | 6         | 0     | 0      | 15    | 31    |
| Articulated Trucks | 0              | 0     | 0         | 0      | 0     | 1                           | 2          | 0         | 0      | 3     | 0                 | 0     | 2     | 0      | 2     | 1                 | 1         | 0     | 0      | 2     | 7     |
| Total Entering Leg | 4              | 0     | 0         | 0      | 4     | 1                           | 12         | 0         | 0      | 13    | 0                 | 2     | 8     | 0      | 10    | 12                | 8         | 0     | 0      | 20    | 47    |
| Buses              | 0              |       |           |        |       | 1                           |            |           |        |       | 2                 |       |       |        |       | 6                 |           |       |        |       | 9     |
| Single-Unit Trucks | 2              |       |           |        |       | 6                           |            |           |        |       | 9                 |       |       |        |       | 14                |           |       |        |       | 31    |
| Articulated Trucks | 1              |       |           |        |       | 1                           |            |           |        |       | 1                 |       |       |        |       | 4                 |           |       |        |       | 7     |
| Total Exiting Leg  | 3              |       |           |        |       | 8                           |            |           |        |       | 12                |       |       |        |       | 24                |           |       |        |       | 47    |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Buses**

|                    | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |          | Washington Street |           |          |          |          | Total     |
|--------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|----------|-------------------|-----------|----------|----------|----------|-----------|
|                    | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |          | from West         |           |          |          |          |           |
|                    | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total    | Thru              | Bear Left | Left     | U-Turn   | Total    |           |
| 7:00 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 1                 | 0         | 0        | 0        | 1        | 2         |
| 7:15 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1                 | 0         | 0        | 0        | 1        | 1         |
| 7:30 AM            | 2              | 0        | 0         | 0        | 2        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 1                 | 1         | 0        | 0        | 2        | 6         |
| 7:45 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 1         |
| <b>Total</b>       | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>0</b>                    | <b>2</b>   | <b>0</b>  | <b>0</b> | <b>2</b> | <b>0</b>          | <b>0</b> | <b>2</b> | <b>0</b> | <b>2</b> | <b>3</b>          | <b>1</b>  | <b>0</b> | <b>0</b> | <b>4</b> | <b>10</b> |
| 8:00 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 0                 | 0         | 0        | 0        | 0        | 1         |
| 8:15 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1                 | 0         | 0        | 0        | 1        | 1         |
| 8:30 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 2                 | 0         | 0        | 0        | 2        | 3         |
| 8:45 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 1                 | 0         | 0        | 0        | 1        | 2         |
| <b>Total</b>       | <b>0</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>                    | <b>0</b>   | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>          | <b>0</b> | <b>3</b> | <b>0</b> | <b>3</b> | <b>4</b>          | <b>0</b>  | <b>0</b> | <b>0</b> | <b>4</b> | <b>7</b>  |
| <b>Grand Total</b> | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>0</b>                    | <b>2</b>   | <b>0</b>  | <b>0</b> | <b>2</b> | <b>0</b>          | <b>0</b> | <b>5</b> | <b>0</b> | <b>5</b> | <b>7</b>          | <b>1</b>  | <b>0</b> | <b>0</b> | <b>8</b> | <b>17</b> |
| Approach %         | 100.0          | 0.0      | 0.0       | 0.0      |          | 0.0                         | 100.0      | 0.0       | 0.0      |          | 0.0               | 0.0      | 100.0    | 0.0      |          | 87.5              | 12.5      | 0.0      | 0.0      |          |           |
| Total %            | 11.8           | 0.0      | 0.0       | 0.0      | 11.8     | 0.0                         | 11.8       | 0.0       | 0.0      | 11.8     | 0.0               | 0.0      | 29.4     | 0.0      | 29.4     | 41.2              | 5.9       | 0.0      | 0.0      | 47.1     |           |
| Exiting Leg Total  | 0              |          |           |          |          | 1                           |            |           |          |          | 7                 |          |          |          |          | 9                 |           |          |          |          | 17        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                     | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |          | Washington Street |           |          |          |          | Total     |
|---------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|----------|-------------------|-----------|----------|----------|----------|-----------|
|                     | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |          | from West         |           |          |          |          |           |
|                     | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total    | Thru              | Bear Left | Left     | U-Turn   | Total    |           |
| 7:00 AM             | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 1                 | 0         | 0        | 0        | 1        | 2         |
| 7:15 AM             | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1                 | 0         | 0        | 0        | 1        | 1         |
| 7:30 AM             | 2              | 0        | 0         | 0        | 2        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 1                 | 1         | 0        | 0        | 2        | 6         |
| 7:45 AM             | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 1         |
| <b>Total Volume</b> | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>0</b>                    | <b>2</b>   | <b>0</b>  | <b>0</b> | <b>2</b> | <b>0</b>          | <b>0</b> | <b>2</b> | <b>0</b> | <b>2</b> | <b>3</b>          | <b>1</b>  | <b>0</b> | <b>0</b> | <b>4</b> | <b>10</b> |
| % Approach Total    | 100.0          | 0.0      | 0.0       | 0.0      |          | 0.0                         | 100.0      | 0.0       | 0.0      |          | 0.0               | 0.0      | 100.0    | 0.0      |          | 75.0              | 25.0      | 0.0      | 0.0      |          |           |
| PHF                 | 0.250          | 0.000    | 0.000     | 0.000    | 0.250    | 0.000                       | 0.500      | 0.000     | 0.000    | 0.500    | 0.000             | 0.000    | 0.500    | 0.000    | 0.500    | 0.750             | 0.250     | 0.000    | 0.000    | 0.500    | 0.417     |
| Entering Leg        | 2              | 0        | 0         | 0        | 2        | 0                           | 2          | 0         | 0        | 2        | 0                 | 0        | 2        | 0        | 2        | 3                 | 1         | 0        | 0        | 4        | 10        |
| Exiting Leg         | 0              |          |           |          |          | 1                           |            |           |          |          | 3                 |          |          |          |          | 6                 |           |          |          |          | 10        |
| <b>Total</b>        | <b>2</b>       |          |           |          |          | <b>3</b>                    |            |           |          |          | <b>5</b>          |          |          |          |          | <b>10</b>         |           |          |          |          | <b>20</b> |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Single-Unit Trucks**

|                   | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |          | Washington Street |           |          |          |           | Total     |
|-------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|----------|-------------------|-----------|----------|----------|-----------|-----------|
|                   | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |          | from West         |           |          |          |           |           |
|                   | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total    | Thru              | Bear Left | Left     | U-Turn   | Total     |           |
| 7:00 AM           | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 1                 | 4         | 0        | 0        | 5         | 6         |
| 7:15 AM           | 1              | 0        | 0         | 0        | 1        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 3        | 0        | 3        | 2                 | 2         | 0        | 0        | 4         | 9         |
| 7:30 AM           | 1              | 0        | 0         | 0        | 1        | 0                           | 3          | 0         | 0        | 3        | 0                 | 0        | 0        | 0        | 0        | 1                 | 2         | 0        | 0        | 3         | 7         |
| 7:45 AM           | 0              | 0        | 0         | 0        | 0        | 0                           | 2          | 0         | 0        | 2        | 0                 | 0        | 0        | 0        | 0        | 1                 | 2         | 0        | 0        | 3         | 5         |
| <b>Total</b>      | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>0</b>                    | <b>7</b>   | <b>0</b>  | <b>0</b> | <b>7</b> | <b>0</b>          | <b>0</b> | <b>3</b> | <b>0</b> | <b>3</b> | <b>5</b>          | <b>10</b> | <b>0</b> | <b>0</b> | <b>15</b> | <b>27</b> |
| 8:00 AM           | 0              | 0        | 0         | 0        | 0        | 0                           | 2          | 0         | 0        | 2        | 0                 | 2        | 1        | 0        | 3        | 5                 | 0         | 0        | 0        | 5         | 10        |
| 8:15 AM           | 1              | 0        | 0         | 0        | 1        | 0                           | 1          | 0         | 0        | 1        | 0                 | 1        | 0        | 0        | 1        | 3                 | 1         | 0        | 0        | 4         | 7         |
| 8:30 AM           | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 3                 | 2         | 0        | 0        | 5         | 7         |
| 8:45 AM           | 1              | 0        | 0         | 0        | 1        | 1                           | 2          | 0         | 0        | 3        | 0                 | 0        | 2        | 0        | 2        | 1                 | 0         | 0        | 0        | 1         | 7         |
| <b>Total</b>      | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>1</b>                    | <b>6</b>   | <b>0</b>  | <b>0</b> | <b>7</b> | <b>0</b>          | <b>3</b> | <b>4</b> | <b>0</b> | <b>7</b> | <b>12</b>         | <b>3</b>  | <b>0</b> | <b>0</b> | <b>15</b> | <b>31</b> |
| Grand Total       | 4              | 0        | 0         | 0        | 4        | 1                           | 13         | 0         | 0        | 14       | 0                 | 3        | 7        | 0        | 10       | 17                | 13        | 0        | 0        | 30        | 58        |
| Approach %        | 100.0          | 0.0      | 0.0       | 0.0      |          | 7.1                         | 92.9       | 0.0       | 0.0      |          | 0.0               | 30.0     | 70.0     | 0.0      |          | 56.7              | 43.3      | 0.0      | 0.0      |           |           |
| Total %           | 6.9            | 0.0      | 0.0       | 0.0      | 6.9      | 1.7                         | 22.4       | 0.0       | 0.0      | 24.1     | 0.0               | 5.2      | 12.1     | 0.0      | 17.2     | 29.3              | 22.4      | 0.0      | 0.0      | 51.7      |           |
| Exiting Leg Total | 4              |          |           |          |          | 13                          |            |           |          |          | 17                |          |          |          |          | 24                |           |          |          |           | 58        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |       |        |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|-------|--------|-------|-------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |       |        |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |
| 7:15 AM          | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 3     | 0      | 3     | 2                 | 2         | 0     | 0      | 4     | 9     |
| 7:30 AM          | 1              | 0     | 0         | 0      | 1     | 0                           | 3          | 0         | 0      | 3     | 0                 | 0     | 0     | 0      | 0     | 1                 | 2         | 0     | 0      | 3     | 7     |
| 7:45 AM          | 0              | 0     | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 0     | 0      | 0     | 1                 | 2         | 0     | 0      | 3     | 5     |
| 8:00 AM          | 0              | 0     | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 2     | 1     | 0      | 3     | 5                 | 0         | 0     | 0      | 5     | 10    |
| Total Volume     | 2              | 0     | 0         | 0      | 2     | 0                           | 8          | 0         | 0      | 8     | 0                 | 2     | 4     | 0      | 6     | 9                 | 6         | 0     | 0      | 15    | 31    |
| % Approach Total | 100.0          | 0.0   | 0.0       | 0.0    |       | 0.0                         | 100.0      | 0.0       | 0.0    |       | 0.0               | 33.3  | 66.7  | 0.0    |       | 60.0              | 40.0      | 0.0   | 0.0    |       |       |
| PHF              | 0.500          | 0.000 | 0.000     | 0.000  | 0.500 | 0.000                       | 0.667      | 0.000     | 0.000  | 0.667 | 0.000             | 0.250 | 0.333 | 0.000  | 0.500 | 0.450             | 0.750     | 0.000 | 0.000  | 0.750 | 0.775 |
| Entering Leg     | 2              | 0     | 0         | 0      | 2     | 0                           | 8          | 0         | 0      | 8     | 0                 | 2     | 4     | 0      | 6     | 9                 | 6         | 0     | 0      | 15    | 31    |
| Exiting Leg      | 2              |       |           |        |       | 6                           |            |           |        |       | 9                 |       |       |        |       | 14                |           |       |        |       | 31    |
| Total            | 4              |       |           |        |       | 14                          |            |           |        |       | 15                |       |       |        |       | 29                |           |       |        |       | 62    |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Articulated Trucks**

|                   | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |          | Washington Street |           |          |          |          | Total    |          |          |          |          |          |
|-------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|----------|-------------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                   | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |          | from West         |           |          |          |          |          |          |          |          |          |          |
|                   | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total    | Thru              | Bear Left | Left     | U-Turn   | Total    |          |          |          |          |          |          |
| 7:00 AM           | 1              | 0        | 0         | 0        | 1        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1        |
| 7:15 AM           | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2        |
| 7:30 AM           | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 1        | 1        | 0        | 0        | 2        | 2        |
| 7:45 AM           | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1        |
| <b>Total</b>      | <b>1</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>1</b> | <b>0</b>                    | <b>1</b>   | <b>0</b>  | <b>0</b> | <b>1</b> | <b>0</b>          | <b>0</b> | <b>2</b> | <b>0</b> | <b>2</b> | <b>1</b>          | <b>1</b>  | <b>0</b> | <b>0</b> | <b>2</b> | <b>1</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>6</b> |
| 8:00 AM           | 0              | 0        | 0         | 0        | 0        | 1                           | 1          | 0         | 0        | 2        | 0                 | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 2        |
| 8:15 AM           | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1        |
| 8:30 AM           | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| 8:45 AM           | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0                 | 2         | 0        | 0        | 0        | 0        | 2        | 0        | 0        | 2        | 2        |
| <b>Total</b>      | <b>0</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>1</b>                    | <b>2</b>   | <b>0</b>  | <b>0</b> | <b>3</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>2</b>  | <b>0</b> | <b>0</b> | <b>2</b> | <b>0</b> | <b>2</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>5</b> |
| Grand Total       | 1              | 0        | 0         | 0        | 1        | 1                           | 3          | 0         | 0        | 4        | 0                 | 0        | 2        | 0        | 2        | 1                 | 3         | 0        | 0        | 4        | 1        | 3        | 0        | 0        | 4        | 11       |
| Approach %        | 100.0          | 0.0      | 0.0       | 0.0      |          | 25.0                        | 75.0       | 0.0       | 0.0      |          | 0.0               | 0.0      | 100.0    | 0.0      |          | 25.0              | 75.0      | 0.0      | 0.0      |          | 9.1      | 27.3     | 0.0      | 0.0      |          |          |
| Total %           | 9.1            | 0.0      | 0.0       | 0.0      | 9.1      | 9.1                         | 27.3       | 0.0       | 0.0      | 36.4     | 0.0               | 0.0      | 18.2     | 0.0      | 18.2     | 9.1               | 27.3      | 0.0      | 0.0      | 36.4     |          |          |          |          |          |          |
| Exiting Leg Total | 1              |          |           |          |          | 3                           |            |           |          |          | 1                 |          |          |          |          | 6                 |           |          |          |          | 11       |          |          |          |          |          |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |       |        |       | Total |       |       |       |       |       |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |       |        |       |       |       |       |       |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |       |       |       |       |       |
| 7:15 AM          | 0              | 0     | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1     | 0      | 1     | 0                 | 0         | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 2     |
| 7:30 AM          | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                 | 1         | 0     | 0      | 2     | 0     | 0     | 0     | 0     | 0     | 2     |
| 7:45 AM          | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 0                 | 0         | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 1     |
| 8:00 AM          | 0              | 0     | 0         | 0      | 0     | 1                           | 1          | 0         | 0      | 2     | 0                 | 0     | 0     | 0      | 0     | 0                 | 0         | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 2     |
| Total Volume     | 0              | 0     | 0         | 0      | 0     | 1                           | 2          | 0         | 0      | 3     | 0                 | 0     | 2     | 0      | 2     | 1                 | 1         | 0     | 0      | 2     | 0     | 0     | 0     | 0     | 0     | 7     |
| % Approach Total | 0.0            | 0.0   | 0.0       | 0.0    |       | 33.3                        | 66.7       | 0.0       | 0.0    |       | 0.0               | 0.0   | 100.0 | 0.0    |       | 50.0              | 50.0      | 0.0   | 0.0    |       |       |       |       |       |       |       |
| PHF              | 0.000          | 0.000 | 0.000     | 0.000  | 0.000 | 0.250                       | 0.500      | 0.000     | 0.000  | 0.375 | 0.000             | 0.000 | 0.500 | 0.000  | 0.500 | 0.250             | 0.250     | 0.000 | 0.000  | 0.250 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 | 0.875 |
| Entering Leg     | 0              | 0     | 0         | 0      | 0     | 1                           | 2          | 0         | 0      | 3     | 0                 | 0     | 2     | 0      | 2     | 1                 | 1         | 0     | 0      | 2     | 0     | 0     | 0     | 0     | 0     | 7     |
| Exiting Leg      | 1              |       |           |        |       | 1                           |            |           |        |       | 1                 |       |       |        |       | 4                 |           |       |        |       | 7     |       |       |       |       |       |
| Total            | 1              |       |           |        |       | 4                           |            |           |        |       | 3                 |       |       |        |       | 6                 |           |       |        |       | 14    |       |       |       |       |       |



PDI File #: 228414 D  
 Location: N: Waltham Street NE: Watertown Street (Route 16)  
 Location: E: Washington Street W: Washington Street  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



### Bicycles (on Roadway and Crosswalks)

|                   | Waltham Street |      |           |        |       |       |       | Watertown Street (Route 16) |            |           |        |        |        |       | Washington Street |       |      |        |       |       |       | Washington Street |           |      |        |       |       |       | Total |
|-------------------|----------------|------|-----------|--------|-------|-------|-------|-----------------------------|------------|-----------|--------|--------|--------|-------|-------------------|-------|------|--------|-------|-------|-------|-------------------|-----------|------|--------|-------|-------|-------|-------|
|                   | from North     |      |           |        |       |       |       | from Northeast              |            |           |        |        |        |       | from East         |       |      |        |       |       |       | from West         |           |      |        |       |       |       |       |
|                   | Right          | Left | Hard Left | U-Turn | CW-EB | CW-WB | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | CW-SEB | CW-NWB | Total | Hard Right        | Right | Thru | U-Turn | CW-SB | CW-NB | Total | Thru              | Bear Left | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 7:00 AM           | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 0     | 0     |
| 7:15 AM           | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 1         | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:30 AM           | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 0     | 0     |
| 7:45 AM           | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 0     | 0     |
| Total             | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 1         | 0    | 0      | 0     | 0     | 0     | 1     |
| 8:00 AM           | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 2         | 0    | 0      | 0     | 0     | 0     | 2     |
| 8:15 AM           | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 0     | 0     |
| 8:30 AM           | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 0     | 0     |
| 8:45 AM           | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 0     | 0     |
| Total             | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 2         | 0    | 0      | 0     | 0     | 0     | 2     |
| Grand Total       | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 3         | 0    | 0      | 0     | 0     | 0     | 3     |
| Approach %        | 0.0            | 0.0  | 0.0       | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                         | 0.0        | 0.0       | 0.0    | 0.0    | 0.0    | 0.0   | 0.0               | 0.0   | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0             | 0.0       | 0.0  | 0.0    | 0.0   | 0.0   |       |       |
| Total %           | 0.0            | 0.0  | 0.0       | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                         | 0.0        | 0.0       | 0.0    | 0.0    | 0.0    | 0.0   | 0.0               | 0.0   | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0             | 0.0       | 0.0  | 0.0    | 0.0   | 100.0 |       |       |
| Exiting Leg Total | 0              |      |           |        |       |       |       | 3                           |            |           |        |        |        |       | 0                 |       |      |        |       |       |       | 0                 |           |      |        |       |       |       |       |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:15 AM          | Waltham Street |       |           |        |       |       |       | Watertown Street (Route 16) |            |           |        |        |        |       | Washington Street |       |       |        |       |       |       | Washington Street |           |       |        |       |       |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-------|-------|-----------------------------|------------|-----------|--------|--------|--------|-------|-------------------|-------|-------|--------|-------|-------|-------|-------------------|-----------|-------|--------|-------|-------|-------|-------|
|                  | from North     |       |           |        |       |       |       | from Northeast              |            |           |        |        |        |       | from East         |       |       |        |       |       |       | from West         |           |       |        |       |       |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | CW-EB | CW-WB | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | CW-SEB | CW-NWB | Total | Hard Right        | Right | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru              | Bear Left | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 7:15 AM          | 0              | 0     | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 1         | 0     | 0      | 0     | 0     | 0     | 1     |
| 7:30 AM          | 0              | 0     | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0         | 0     | 0      | 0     | 0     | 0     | 0     |
| 7:45 AM          | 0              | 0     | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0         | 0     | 0      | 0     | 0     | 0     | 0     |
| 8:00 AM          | 0              | 0     | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 2         | 0     | 0      | 0     | 0     | 0     | 2     |
| Total Volume     | 0              | 0     | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 3         | 0     | 0      | 0     | 0     | 0     | 3     |
| % Approach Total | 0.0            | 0.0   | 0.0       | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                         | 0.0        | 0.0       | 0.0    | 0.0    | 0.0    | 0.0   | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 100.0             | 0.0       | 0.0   | 0.0    | 0.0   | 0.0   |       |       |
| PHF              | 0.000          | 0.000 | 0.000     | 0.000  | 0.000 | 0.000 | 0.000 | 0.000                       | 0.000      | 0.000     | 0.000  | 0.000  | 0.000  | 0.000 | 0.000             | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.375             | 0.000     | 0.000 | 0.000  | 0.000 | 0.375 | 0.375 |       |
| Entering Leg     | 0              | 0     | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 3         | 0     | 0      | 0     | 0     | 0     | 3     |
| Exiting Leg      | 0              |       |           |        |       |       |       | 3                           |            |           |        |        |        |       | 0                 |       |       |        |       |       |       | 0                 |           |       |        |       |       |       |       |
| Total            | 0              |       |           |        |       |       |       | 3                           |            |           |        |        |        |       | 0                 |       |       |        |       |       |       | 3                 |           |       |        |       |       |       |       |

PDI File #: 228414 D  
 Location: N: Waltham Street NE: Watertown Street (Route 16)  
 Location: E: Washington Street W: Washington Street  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Pedestrians**

|                          | Waltham Street |      |           |        |       |       |       | Watertown Street (Route 16) |            |           |        |        |        |       | Washington Street |       |      |        |       |       |       | Washington Street |           |      |        |       |       |       | Total |   |
|--------------------------|----------------|------|-----------|--------|-------|-------|-------|-----------------------------|------------|-----------|--------|--------|--------|-------|-------------------|-------|------|--------|-------|-------|-------|-------------------|-----------|------|--------|-------|-------|-------|-------|---|
|                          | from North     |      |           |        |       |       |       | from Northeast              |            |           |        |        |        |       | from East         |       |      |        |       |       |       | from West         |           |      |        |       |       |       |       |   |
|                          | Right          | Left | Hard Left | U-Turn | CW-EB | CW-WB | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | CW-SEB | CW-NWB | Total | Hard Right        | Right | Thru | U-Turn | CW-SB | CW-NB | Total | Thru              | Bear Left | Left | U-Turn | CW-NB | CW-SB | Total |       |   |
| 7:00 AM                  | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 1     | 1     | 1 |
| 7:15 AM                  | 0              | 0    | 0         | 0      | 0     | 2     | 2     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 0     | 0     | 2 |
| 7:30 AM                  | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 1      | 0      | 1      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| 7:45 AM                  | 0              | 0    | 0         | 0      | 1     | 1     | 2     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 0     | 0     | 2 |
| <b>Total</b>             | 0              | 0    | 0         | 0      | 1     | 3     | 4     | 0                           | 0          | 0         | 0      | 1      | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 1     | 1     | 6 |
| 8:00 AM                  | 0              | 0    | 0         | 0      | 0     | 4     | 4     | 0                           | 0          | 0         | 0      | 1      | 1      | 2     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 0     | 1     | 2     | 3 |
| 8:15 AM                  | 0              | 0    | 0         | 0      | 1     | 1     | 2     | 0                           | 0          | 0         | 0      | 0      | 2      | 2     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 0     | 1     | 1     | 2     |   |
| 8:30 AM                  | 0              | 0    | 0         | 0      | 1     | 1     | 2     | 0                           | 0          | 0         | 0      | 2      | 0      | 2     | 0                 | 0     | 0    | 0      | 2     | 0     | 2     | 0                 | 0         | 0    | 0      | 1     | 3     | 4     | 10    |   |
| 8:45 AM                  | 0              | 0    | 0         | 0      | 2     | 1     | 3     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 2     | 1     | 3     | 6     |   |
| <b>Total</b>             | 0              | 0    | 0         | 0      | 4     | 7     | 11    | 0                           | 0          | 0         | 0      | 3      | 3      | 6     | 0                 | 0     | 0    | 0      | 2     | 0     | 2     | 0                 | 0         | 0    | 0      | 5     | 7     | 12    | 31    |   |
| <b>Grand Total</b>       | 0              | 0    | 0         | 0      | 5     | 10    | 15    | 0                           | 0          | 0         | 0      | 4      | 3      | 7     | 0                 | 0     | 0    | 0      | 2     | 0     | 2     | 0                 | 0         | 0    | 0      | 5     | 8     | 13    | 37    |   |
| <b>Approach %</b>        | 0              | 0    | 0         | 0      | 33.3  | 66.7  |       | 0                           | 0          | 0         | 0      | 57.1   | 42.9   |       | 0                 | 0     | 0    | 0      | 100   | 0     |       | 0                 | 0         | 0    | 0      | 38.5  | 61.5  |       |       |   |
| <b>Total %</b>           | 0              | 0    | 0         | 0      | 13.5  | 27    | 40.5  | 0                           | 0          | 0         | 0      | 10.8   | 8.11   | 18.9  | 0                 | 0     | 0    | 0      | 5.41  | 0     | 5.41  |                   | 0         | 0    | 0      | 0     | 13.5  | 21.6  | 35.1  |   |
| <b>Exiting Leg Total</b> | 15             |      |           |        |       |       |       | 7                           |            |           |        |        |        |       | 2                 |       |      |        |       |       |       | 13                |           |      |        |       |       |       | 37    |   |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                         | Waltham Street |       |           |        |       |       |       | Watertown Street (Route 16) |            |           |        |        |        |       | Washington Street |       |       |        |       |       |       | Washington Street |           |       |        |       |       |       | Total |       |
|-------------------------|----------------|-------|-----------|--------|-------|-------|-------|-----------------------------|------------|-----------|--------|--------|--------|-------|-------------------|-------|-------|--------|-------|-------|-------|-------------------|-----------|-------|--------|-------|-------|-------|-------|-------|
|                         | from North     |       |           |        |       |       |       | from Northeast              |            |           |        |        |        |       | from East         |       |       |        |       |       |       | from West         |           |       |        |       |       |       |       |       |
|                         | Right          | Left  | Hard Left | U-Turn | CW-EB | CW-WB | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | CW-SEB | CW-NWB | Total | Hard Right        | Right | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru              | Bear Left | Left  | U-Turn | CW-NB | CW-SB | Total |       |       |
| 8:00 AM                 | 0              | 0     | 0         | 0      | 0     | 4     | 4     | 0                           | 0          | 0         | 0      | 1      | 1      | 2     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0         | 0     | 0      | 0     | 1     | 2     | 3     | 9     |
| 8:15 AM                 | 0              | 0     | 0         | 0      | 1     | 1     | 2     | 0                           | 0          | 0         | 0      | 0      | 2      | 2     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0         | 0     | 0      | 0     | 1     | 1     | 2     | 6     |
| 8:30 AM                 | 0              | 0     | 0         | 0      | 1     | 1     | 2     | 0                           | 0          | 0         | 0      | 2      | 0      | 2     | 0                 | 0     | 0     | 0      | 2     | 0     | 2     | 0                 | 0         | 0     | 0      | 1     | 3     | 4     | 10    |       |
| 8:45 AM                 | 0              | 0     | 0         | 0      | 2     | 1     | 3     | 0                           | 0          | 0         | 0      | 0      | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0         | 0     | 0      | 2     | 1     | 3     | 6     |       |
| <b>Total Volume</b>     | 0              | 0     | 0         | 0      | 4     | 7     | 11    | 0                           | 0          | 0         | 0      | 3      | 3      | 6     | 0                 | 0     | 0     | 0      | 2     | 0     | 2     | 0                 | 0         | 0     | 0      | 5     | 7     | 12    | 31    |       |
| <b>% Approach Total</b> | 0.0            | 0.0   | 0.0       | 0.0    | 36.4  | 63.6  |       | 0.0                         | 0.0        | 0.0       | 0.0    | 50.0   | 50.0   |       | 0.0               | 0.0   | 0.0   | 0.0    | 100.0 | 0.0   |       | 0.0               | 0.0       | 0.0   | 0.0    | 41.7  | 58.3  |       |       |       |
| <b>PHF</b>              | 0.000          | 0.000 | 0.000     | 0.000  | 0.500 | 0.438 | 0.688 | 0.000                       | 0.000      | 0.000     | 0.000  | 0.375  | 0.375  | 0.750 | 0.000             | 0.000 | 0.000 | 0.000  | 0.250 | 0.000 | 0.250 |                   | 0.000     | 0.000 | 0.000  | 0.000 | 0.625 | 0.583 | 0.750 | 0.775 |
| <b>Entering Leg</b>     | 0              | 0     | 0         | 0      | 4     | 7     | 11    | 0                           | 0          | 0         | 0      | 3      | 3      | 6     | 0                 | 0     | 0     | 0      | 2     | 0     | 2     | 0                 | 0         | 0     | 0      | 5     | 7     | 12    | 31    |       |
| <b>Exiting Leg</b>      | 11             |       |           |        |       |       |       | 6                           |            |           |        |        |        |       | 2                 |       |       |        |       |       |       | 12                |           |       |        |       |       |       | 31    |       |
| <b>Total</b>            | 22             |       |           |        |       |       |       | 12                          |            |           |        |        |        |       | 4                 |       |       |        |       |       |       | 24                |           |       |        |       |       |       | 62    |       |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street |           |       |        |       | Total |
|-------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|-------------------|-----------|-------|--------|-------|-------|
|                   | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West         |           |       |        |       |       |
|                   | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |
| 4:00 PM           | 38             | 0     | 0         | 0      | 38    | 9                           | 41         | 0         | 0      | 50    | 1                 | 44    | 64   | 0      | 109   | 74                | 60        | 2     | 0      | 136   | 333   |
| 4:15 PM           | 38             | 0     | 0         | 0      | 38    | 13                          | 57         | 0         | 0      | 70    | 0                 | 23    | 57   | 0      | 80    | 93                | 77        | 4     | 0      | 174   | 362   |
| 4:30 PM           | 32             | 1     | 0         | 1      | 34    | 8                           | 51         | 0         | 0      | 59    | 1                 | 28    | 42   | 0      | 71    | 88                | 75        | 5     | 0      | 168   | 332   |
| 4:45 PM           | 32             | 1     | 0         | 0      | 33    | 7                           | 58         | 0         | 0      | 65    | 0                 | 33    | 62   | 0      | 95    | 93                | 81        | 2     | 0      | 176   | 369   |
| <b>Total</b>      | 140            | 2     | 0         | 1      | 143   | 37                          | 207        | 0         | 0      | 244   | 2                 | 128   | 225  | 0      | 355   | 348               | 293       | 13    | 0      | 654   | 1396  |
| 5:00 PM           | 30             | 0     | 0         | 0      | 30    | 9                           | 51         | 0         | 0      | 60    | 0                 | 23    | 63   | 0      | 86    | 73                | 81        | 0     | 0      | 154   | 330   |
| 5:15 PM           | 27             | 0     | 0         | 0      | 27    | 9                           | 56         | 0         | 0      | 65    | 0                 | 27    | 71   | 0      | 98    | 87                | 83        | 0     | 0      | 170   | 360   |
| 5:30 PM           | 24             | 0     | 0         | 0      | 24    | 9                           | 51         | 0         | 0      | 60    | 0                 | 47    | 49   | 0      | 96    | 96                | 84        | 3     | 0      | 183   | 363   |
| 5:45 PM           | 37             | 0     | 0         | 0      | 37    | 11                          | 48         | 0         | 0      | 59    | 1                 | 33    | 71   | 0      | 105   | 106               | 90        | 0     | 0      | 196   | 397   |
| <b>Total</b>      | 118            | 0     | 0         | 0      | 118   | 38                          | 206        | 0         | 0      | 244   | 1                 | 130   | 254  | 0      | 385   | 362               | 338       | 3     | 0      | 703   | 1450  |
| Grand Total       | 258            | 2     | 0         | 1      | 261   | 75                          | 413        | 0         | 0      | 488   | 3                 | 258   | 479  | 0      | 740   | 710               | 631       | 16    | 0      | 1357  | 2846  |
| Approach %        | 98.9           | 0.8   | 0.0       | 0.4    | 15.4  | 84.6                        | 0.0        | 0.0       | 0.4    | 34.9  | 64.7              | 0.0   | 52.3 | 46.5   | 1.2   | 0.0               |           |       |        |       |       |
| Total %           | 9.1            | 0.1   | 0.0       | 0.0    | 9.2   | 2.6                         | 14.5       | 0.0       | 0.0    | 17.1  | 0.1               | 9.1   | 16.8 | 0.0    | 26.0  | 24.9              | 22.2      | 0.6   | 0.0    | 47.7  |       |
| Exiting Leg Total | 350            |       |           |        |       | 634                         |            |           |        |       | 712               |       |      |        |       | 1150              |           |       |        |       | 2846  |
| Cars              | 253            | 2     | 0         | 1      | 256   | 74                          | 405        | 0         | 0      | 479   | 3                 | 258   | 468  | 0      | 729   | 695               | 621       | 16    | 0      | 1332  | 2796  |
| % Cars            | 98.1           | 100.0 | 0.0       | 100.0  | 98.1  | 98.7                        | 98.1       | 0.0       | 0.0    | 98.2  | 100.0             | 100.0 | 97.7 | 0.0    | 98.5  | 97.9              | 98.4      | 100.0 | 0.0    | 98.2  | 98.2  |
| Exiting Leg Total | 349            |       |           |        |       | 624                         |            |           |        |       | 697               |       |      |        |       | 1126              |           |       |        |       | 2796  |
| Heavy Vehicles    | 5              | 0     | 0         | 0      | 5     | 1                           | 8          | 0         | 0      | 9     | 0                 | 0     | 11   | 0      | 11    | 15                | 10        | 0     | 0      | 25    | 50    |
| % Heavy Vehicles  | 1.9            | 0.0   | 0.0       | 0.0    | 1.9   | 1.3                         | 1.9        | 0.0       | 0.0    | 1.8   | 0.0               | 0.0   | 2.3  | 0.0    | 1.5   | 2.1               | 1.6       | 0.0   | 0.0    | 1.8   | 1.8   |
| Exiting Leg Total | 1              |       |           |        |       | 10                          |            |           |        |       | 15                |       |      |        |       | 24                |           |       |        |       | 50    |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                    | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |       |        |       | Total |
|--------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|-------|--------|-------|-------|
|                    | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |       |        |       |       |
|                    | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |
| 5:00 PM            | 30             | 0     | 0         | 0      | 30    | 9                           | 51         | 0         | 0      | 60    | 0                 | 23    | 63    | 0      | 86    | 73                | 81        | 0     | 0      | 154   | 330   |
| 5:15 PM            | 27             | 0     | 0         | 0      | 27    | 9                           | 56         | 0         | 0      | 65    | 0                 | 27    | 71    | 0      | 98    | 87                | 83        | 0     | 0      | 170   | 360   |
| 5:30 PM            | 24             | 0     | 0         | 0      | 24    | 9                           | 51         | 0         | 0      | 60    | 0                 | 47    | 49    | 0      | 96    | 96                | 84        | 3     | 0      | 183   | 363   |
| 5:45 PM            | 37             | 0     | 0         | 0      | 37    | 11                          | 48         | 0         | 0      | 59    | 1                 | 33    | 71    | 0      | 105   | 106               | 90        | 0     | 0      | 196   | 397   |
| Total Volume       | 118            | 0     | 0         | 0      | 118   | 38                          | 206        | 0         | 0      | 244   | 1                 | 130   | 254   | 0      | 385   | 362               | 338       | 3     | 0      | 703   | 1450  |
| % Approach Total   | 100.0          | 0.0   | 0.0       | 0.0    | 15.6  | 84.4                        | 0.0        | 0.0       | 0.3    | 33.8  | 66.0              | 0.0   | 51.5  | 48.1   | 0.4   | 0.0               |           |       |        |       |       |
| PHF                | 0.797          | 0.000 | 0.000     | 0.000  | 0.797 | 0.864                       | 0.920      | 0.000     | 0.000  | 0.938 | 0.250             | 0.691 | 0.894 | 0.000  | 0.917 | 0.854             | 0.939     | 0.250 | 0.000  | 0.897 | 0.913 |
| Cars               | 118            | 0     | 0         | 0      | 118   | 38                          | 202        | 0         | 0      | 240   | 1                 | 130   | 248   | 0      | 379   | 358               | 334       | 3     | 0      | 695   | 1432  |
| Cars %             | 100.0          | 0.0   | 0.0       | 0.0    | 100.0 | 100.0                       | 98.1       | 0.0       | 0.0    | 98.4  | 100.0             | 100.0 | 97.6  | 0.0    | 98.4  | 98.9              | 98.8      | 100.0 | 0.0    | 98.9  | 98.8  |
| Heavy Vehicles     | 0              | 0     | 0         | 0      | 0     | 0                           | 4          | 0         | 0      | 4     | 0                 | 0     | 6     | 0      | 6     | 4                 | 4         | 0     | 0      | 8     | 18    |
| Heavy Vehicles %   | 0.0            | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                         | 1.9        | 0.0       | 0.0    | 1.6   | 0.0               | 0.0   | 2.4   | 0.0    | 1.6   | 1.1               | 1.2       | 0.0   | 0.0    | 1.1   | 1.2   |
| Cars Enter Leg     | 118            | 0     | 0         | 0      | 118   | 38                          | 202        | 0         | 0      | 240   | 1                 | 130   | 248   | 0      | 379   | 358               | 334       | 3     | 0      | 695   | 1432  |
| Heavy Enter Leg    | 0              | 0     | 0         | 0      | 0     | 0                           | 4          | 0         | 0      | 4     | 0                 | 0     | 6     | 0      | 6     | 4                 | 4         | 0     | 0      | 8     | 18    |
| Total Entering Leg | 118            | 0     | 0         | 0      | 118   | 38                          | 206        | 0         | 0      | 244   | 1                 | 130   | 254   | 0      | 385   | 362               | 338       | 3     | 0      | 703   | 1450  |
| Cars Exiting Leg   | 171            |       |           |        |       | 335                         |            |           |        |       | 358               |       |       |        |       | 568               |           |       |        |       | 1432  |
| Heavy Exiting Leg  | 0              |       |           |        |       | 4                           |            |           |        |       | 4                 |       |       |        |       | 10                |           |       |        |       | 18    |
| Total Exiting Leg  | 171            |       |           |        |       | 339                         |            |           |        |       | 362               |       |       |        |       | 578               |           |       |        |       | 1450  |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class: **Cars**



|                   | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street |           |      |        |       | Total |
|-------------------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|-------------------|-----------|------|--------|-------|-------|
|                   | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West         |           |      |        |       |       |
|                   | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru              | Bear Left | Left | U-Turn | Total |       |
| 4:00 PM           | 38             | 0    | 0         | 0      | 38    | 9                           | 40         | 0         | 0      | 49    | 1                 | 44    | 63   | 0      | 108   | 72                | 58        | 2    | 0      | 132   | 327   |
| 4:15 PM           | 38             | 0    | 0         | 0      | 38    | 13                          | 55         | 0         | 0      | 68    | 0                 | 23    | 57   | 0      | 80    | 88                | 75        | 4    | 0      | 167   | 353   |
| 4:30 PM           | 31             | 1    | 0         | 1      | 33    | 7                           | 50         | 0         | 0      | 57    | 1                 | 28    | 40   | 0      | 69    | 85                | 73        | 5    | 0      | 163   | 322   |
| 4:45 PM           | 28             | 1    | 0         | 0      | 29    | 7                           | 58         | 0         | 0      | 65    | 0                 | 33    | 60   | 0      | 93    | 92                | 81        | 2    | 0      | 175   | 362   |
| <b>Total</b>      | 135            | 2    | 0         | 1      | 138   | 36                          | 203        | 0         | 0      | 239   | 2                 | 128   | 220  | 0      | 350   | 337               | 287       | 13   | 0      | 637   | 1364  |
| 5:00 PM           | 30             | 0    | 0         | 0      | 30    | 9                           | 49         | 0         | 0      | 58    | 0                 | 23    | 61   | 0      | 84    | 73                | 80        | 0    | 0      | 153   | 325   |
| 5:15 PM           | 27             | 0    | 0         | 0      | 27    | 9                           | 56         | 0         | 0      | 65    | 0                 | 27    | 69   | 0      | 96    | 86                | 82        | 0    | 0      | 168   | 356   |
| 5:30 PM           | 24             | 0    | 0         | 0      | 24    | 9                           | 50         | 0         | 0      | 59    | 0                 | 47    | 49   | 0      | 96    | 93                | 83        | 3    | 0      | 179   | 358   |
| 5:45 PM           | 37             | 0    | 0         | 0      | 37    | 11                          | 47         | 0         | 0      | 58    | 1                 | 33    | 69   | 0      | 103   | 106               | 89        | 0    | 0      | 195   | 393   |
| <b>Total</b>      | 118            | 0    | 0         | 0      | 118   | 38                          | 202        | 0         | 0      | 240   | 1                 | 130   | 248  | 0      | 379   | 358               | 334       | 3    | 0      | 695   | 1432  |
| Grand Total       | 253            | 2    | 0         | 1      | 256   | 74                          | 405        | 0         | 0      | 479   | 3                 | 258   | 468  | 0      | 729   | 695               | 621       | 16   | 0      | 1332  | 2796  |
| Approach %        | 98.8           | 0.8  | 0.0       | 0.4    | 15.4  | 84.6                        | 0.0        | 0.0       | 0.4    | 35.4  | 64.2              | 0.0   | 52.2 | 46.6   | 1.2   | 0.0               |           |      |        |       |       |
| Total %           | 9.0            | 0.1  | 0.0       | 0.0    | 9.2   | 2.6                         | 14.5       | 0.0       | 0.0    | 17.1  | 0.1               | 9.2   | 16.7 | 0.0    | 26.1  | 24.9              | 22.2      | 0.6  | 0.0    | 47.6  |       |
| Exiting Leg Total | 349            |      |           |        |       | 624                         |            |           |        |       | 697               |       |      |        |       | 1126              |           |      |        |       | 2796  |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |       |        |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|-------|--------|-------|-------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |       |        |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |
| 5:00 PM          | 30             | 0     | 0         | 0      | 30    | 9                           | 49         | 0         | 0      | 58    | 0                 | 23    | 61    | 0      | 84    | 73                | 80        | 0     | 0      | 153   | 325   |
| 5:15 PM          | 27             | 0     | 0         | 0      | 27    | 9                           | 56         | 0         | 0      | 65    | 0                 | 27    | 69    | 0      | 96    | 86                | 82        | 0     | 0      | 168   | 356   |
| 5:30 PM          | 24             | 0     | 0         | 0      | 24    | 9                           | 50         | 0         | 0      | 59    | 0                 | 47    | 49    | 0      | 96    | 93                | 83        | 3     | 0      | 179   | 358   |
| 5:45 PM          | 37             | 0     | 0         | 0      | 37    | 11                          | 47         | 0         | 0      | 58    | 1                 | 33    | 69    | 0      | 103   | 106               | 89        | 0     | 0      | 195   | 393   |
| Total Volume     | 118            | 0     | 0         | 0      | 118   | 38                          | 202        | 0         | 0      | 240   | 1                 | 130   | 248   | 0      | 379   | 358               | 334       | 3     | 0      | 695   | 1432  |
| % Approach Total | 100.0          | 0.0   | 0.0       | 0.0    | 15.8  | 84.2                        | 0.0        | 0.0       | 0.3    | 34.3  | 65.4              | 0.0   | 51.5  | 48.1   | 0.4   | 0.0               |           |       |        |       |       |
| PHF              | 0.797          | 0.000 | 0.000     | 0.000  | 0.797 | 0.864                       | 0.902      | 0.000     | 0.000  | 0.923 | 0.250             | 0.691 | 0.899 | 0.000  | 0.920 | 0.844             | 0.938     | 0.250 | 0.000  | 0.891 | 0.911 |
| Entering Leg     | 118            | 0     | 0         | 0      | 118   | 38                          | 202        | 0         | 0      | 240   | 1                 | 130   | 248   | 0      | 379   | 358               | 334       | 3     | 0      | 695   | 1432  |
| Exiting Leg      | 171            |       |           |        |       | 335                         |            |           |        |       | 358               |       |       |        |       | 568               |           |       |        |       | 1432  |
| Total            | 289            |       |           |        |       | 575                         |            |           |        |       | 737               |       |       |        |       | 1263              |           |       |        |       | 2864  |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



|                    | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |          | Washington Street |           |          |          |           | Total     |
|--------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|----------|-------------------|-----------|----------|----------|-----------|-----------|
|                    | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |          | from West         |           |          |          |           |           |
|                    | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total    | Thru              | Bear Left | Left     | U-Turn   | Total     |           |
| 4:00 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 2                 | 2         | 0        | 0        | 4         | 6         |
| 4:15 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 2          | 0         | 0        | 2        | 0                 | 0        | 0        | 0        | 0        | 5                 | 2         | 0        | 0        | 7         | 9         |
| 4:30 PM            | 1              | 0        | 0         | 0        | 1        | 1                           | 1          | 0         | 0        | 2        | 0                 | 0        | 2        | 0        | 2        | 3                 | 2         | 0        | 0        | 5         | 10        |
| 4:45 PM            | 4              | 0        | 0         | 0        | 4        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 2        | 0        | 2        | 1                 | 0         | 0        | 0        | 1         | 7         |
| <b>Total</b>       | <b>5</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>5</b> | <b>1</b>                    | <b>4</b>   | <b>0</b>  | <b>0</b> | <b>5</b> | <b>0</b>          | <b>0</b> | <b>5</b> | <b>0</b> | <b>5</b> | <b>11</b>         | <b>6</b>  | <b>0</b> | <b>0</b> | <b>17</b> | <b>32</b> |
| 5:00 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 2          | 0         | 0        | 2        | 0                 | 0        | 2        | 0        | 2        | 0                 | 1         | 0        | 0        | 1         | 5         |
| 5:15 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 2        | 0        | 2        | 1                 | 1         | 0        | 0        | 2         | 4         |
| 5:30 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 3                 | 1         | 0        | 0        | 4         | 5         |
| 5:45 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 2        | 0        | 2        | 0                 | 1         | 0        | 0        | 1         | 4         |
| <b>Total</b>       | <b>0</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>                    | <b>4</b>   | <b>0</b>  | <b>0</b> | <b>4</b> | <b>0</b>          | <b>0</b> | <b>6</b> | <b>0</b> | <b>6</b> | <b>4</b>          | <b>4</b>  | <b>0</b> | <b>0</b> | <b>8</b>  | <b>18</b> |
| Grand Total        | 5              | 0        | 0         | 0        | 5        | 1                           | 8          | 0         | 0        | 9        | 0                 | 0        | 11       | 0        | 11       | 15                | 10        | 0        | 0        | 25        | 50        |
| Approach %         | 100.0          | 0.0      | 0.0       | 0.0      |          | 11.1                        | 88.9       | 0.0       | 0.0      |          | 0.0               | 0.0      | 100.0    | 0.0      |          | 60.0              | 40.0      | 0.0      | 0.0      |           |           |
| Total %            | 10.0           | 0.0      | 0.0       | 0.0      | 10.0     | 2.0                         | 16.0       | 0.0       | 0.0      | 18.0     | 0.0               | 0.0      | 22.0     | 0.0      | 22.0     | 30.0              | 20.0      | 0.0      | 0.0      | 50.0      |           |
| Exiting Leg Total  | 1              |          |           |          |          | 10                          |            |           |          |          | 15                |          |          |          |          | 24                |           |          |          |           | 50        |
| Buses              | 2              | 0        | 0         | 0        | 2        | 1                           | 4          | 0         | 0        | 5        | 0                 | 0        | 5        | 0        | 5        | 8                 | 3         | 0        | 0        | 11        | 23        |
| % Buses            | 40.0           | 0.0      | 0.0       | 0.0      | 40.0     | 100.0                       | 50.0       | 0.0       | 0.0      | 55.6     | 0.0               | 0.0      | 45.5     | 0.0      | 45.5     | 53.3              | 30.0      | 0.0      | 0.0      | 44.0      | 46.0      |
| Exiting Leg Total  | 1              |          |           |          |          | 3                           |            |           |          |          | 8                 |          |          |          |          | 11                |           |          |          |           | 23        |
| Single-Unit Trucks | 3              | 0        | 0         | 0        | 3        | 0                           | 4          | 0         | 0        | 4        | 0                 | 0        | 5        | 0        | 5        | 3                 | 7         | 0        | 0        | 10        | 22        |
| % Single-Unit      | 60.0           | 0.0      | 0.0       | 0.0      | 60.0     | 0.0                         | 50.0       | 0.0       | 0.0      | 44.4     | 0.0               | 0.0      | 45.5     | 0.0      | 45.5     | 20.0              | 70.0      | 0.0      | 0.0      | 40.0      | 44.0      |
| Exiting Leg Total  | 0              |          |           |          |          | 7                           |            |           |          |          | 3                 |          |          |          |          | 12                |           |          |          |           | 22        |
| Articulated Trucks | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 4                 | 0         | 0        | 0        | 4         | 5         |
| % Articulated      | 0.0            | 0.0      | 0.0       | 0.0      | 0.0      | 0.0                         | 0.0        | 0.0       | 0.0      | 0.0      | 0.0               | 0.0      | 9.1      | 0.0      | 9.1      | 26.7              | 0.0       | 0.0      | 0.0      | 16.0      | 10.0      |
| Exiting Leg Total  | 0              |          |           |          |          | 0                           |            |           |          |          | 4                 |          |          |          |          | 1                 |           |          |          |           | 5         |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM            | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |       |        |       | Total |
|--------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|-------|--------|-------|-------|
|                    | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |       |        |       |       |
|                    | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |
| 4:00 PM            | 0              | 0     | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1     | 0      | 1     | 2                 | 2         | 0     | 0      | 4     | 6     |
| 4:15 PM            | 0              | 0     | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 0     | 0      | 0     | 5                 | 2         | 0     | 0      | 7     | 9     |
| 4:30 PM            | 1              | 0     | 0         | 0      | 1     | 1                           | 1          | 0         | 0      | 2     | 0                 | 0     | 2     | 0      | 2     | 3                 | 2         | 0     | 0      | 5     | 10    |
| 4:45 PM            | 4              | 0     | 0         | 0      | 4     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2     | 0      | 2     | 1                 | 0         | 0     | 0      | 1     | 7     |
| Total Volume       | 5              | 0     | 0         | 0      | 5     | 1                           | 4          | 0         | 0      | 5     | 0                 | 0     | 5     | 0      | 5     | 11                | 6         | 0     | 0      | 17    | 32    |
| % Approach Total   | 100.0          | 0.0   | 0.0       | 0.0    |       | 20.0                        | 80.0       | 0.0       | 0.0    |       | 0.0               | 0.0   | 100.0 | 0.0    |       | 64.7              | 35.3      | 0.0   | 0.0    |       |       |
| PHF                | 0.313          | 0.000 | 0.000     | 0.000  | 0.313 | 0.250                       | 0.500      | 0.000     | 0.000  | 0.625 | 0.000             | 0.000 | 0.625 | 0.000  | 0.625 | 0.550             | 0.750     | 0.000 | 0.000  | 0.607 | 0.800 |
| Buses              | 2              | 0     | 0         | 0      | 2     | 1                           | 3          | 0         | 0      | 4     | 0                 | 0     | 2     | 0      | 2     | 7                 | 3         | 0     | 0      | 10    | 18    |
| Buses %            | 40.0           | 0.0   | 0.0       | 0.0    | 40.0  | 100.0                       | 75.0       | 0.0       | 0.0    | 80.0  | 0.0               | 0.0   | 40.0  | 0.0    | 40.0  | 63.6              | 50.0      | 0.0   | 0.0    | 58.8  | 56.3  |
| Single-Unit Trucks | 3              | 0     | 0         | 0      | 3     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 2     | 0      | 2     | 1                 | 3         | 0     | 0      | 4     | 10    |
| Single-Unit %      | 60.0           | 0.0   | 0.0       | 0.0    | 60.0  | 0.0                         | 25.0       | 0.0       | 0.0    | 20.0  | 0.0               | 0.0   | 40.0  | 0.0    | 40.0  | 9.1               | 50.0      | 0.0   | 0.0    | 23.5  | 31.3  |
| Articulated Trucks | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 3                 | 0         | 0     | 0      | 3     | 4     |
| Articulated %      | 0.0            | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                         | 0.0        | 0.0       | 0.0    | 0.0   | 0.0               | 0.0   | 20.0  | 0.0    | 20.0  | 27.3              | 0.0       | 0.0   | 0.0    | 17.6  | 12.5  |
| Buses              | 2              | 0     | 0         | 0      | 2     | 1                           | 3          | 0         | 0      | 4     | 0                 | 0     | 2     | 0      | 2     | 7                 | 3         | 0     | 0      | 10    | 18    |
| Single-Unit Trucks | 3              | 0     | 0         | 0      | 3     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 2     | 0      | 2     | 1                 | 3         | 0     | 0      | 4     | 10    |
| Articulated Trucks | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 3                 | 0         | 0     | 0      | 3     | 4     |
| Total Entering Leg | 5              | 0     | 0         | 0      | 5     | 1                           | 4          | 0         | 0      | 5     | 0                 | 0     | 5     | 0      | 5     | 11                | 6         | 0     | 0      | 17    | 32    |
| Buses              | 1              |       |           |        |       | 3                           |            |           |        |       | 7                 |       |       |        |       | 7                 |           |       |        |       | 18    |
| Single-Unit Trucks | 0              |       |           |        |       | 3                           |            |           |        |       | 1                 |       |       |        |       | 6                 |           |       |        |       | 10    |
| Articulated Trucks | 0              |       |           |        |       | 0                           |            |           |        |       | 3                 |       |       |        |       | 1                 |           |       |        |       | 4     |
| Total Exiting Leg  | 1              |       |           |        |       | 6                           |            |           |        |       | 11                |       |       |        |       | 14                |           |       |        |       | 32    |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Buses**

|                    | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |          | Washington Street |           |          |          |           | Total     |  |    |
|--------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|----------|-------------------|-----------|----------|----------|-----------|-----------|--|----|
|                    | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |          | from West         |           |          |          |           |           |  |    |
|                    | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total    | Thru              | Bear Left | Left     | U-Turn   | Total     |           |  |    |
| 4:00 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 0                 | 0         | 0        | 0        | 0         | 2         |  |    |
| 4:15 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 2          | 0         | 0        | 2        | 0                 | 0        | 0        | 0        | 0        | 4                 | 2         | 0        | 0        | 6         | 8         |  |    |
| 4:30 PM            | 1              | 0        | 0         | 0        | 1        | 1                           | 0          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 2                 | 1         | 0        | 0        | 3         | 6         |  |    |
| 4:45 PM            | 1              | 0        | 0         | 0        | 1        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1                 | 0         | 0        | 0        | 1         | 2         |  |    |
| <b>Total</b>       | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>1</b>                    | <b>3</b>   | <b>0</b>  | <b>0</b> | <b>4</b> | <b>0</b>          | <b>0</b> | <b>2</b> | <b>0</b> | <b>2</b> | <b>7</b>          | <b>3</b>  | <b>0</b> | <b>0</b> | <b>10</b> | <b>18</b> |  |    |
| 5:00 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 0                 | 0         | 0        | 0        | 0         | 1         |  |    |
| 5:15 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 1                 | 0         | 0        | 0        | 1         | 2         |  |    |
| 5:30 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0         | 0         |  |    |
| 5:45 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 0                 | 0         | 0        | 0        | 0         | 2         |  |    |
| <b>Total</b>       | <b>0</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>                    | <b>1</b>   | <b>0</b>  | <b>0</b> | <b>1</b> | <b>0</b>          | <b>0</b> | <b>3</b> | <b>0</b> | <b>3</b> | <b>1</b>          | <b>0</b>  | <b>0</b> | <b>0</b> | <b>1</b>  | <b>5</b>  |  |    |
| <b>Grand Total</b> | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>1</b>                    | <b>4</b>   | <b>0</b>  | <b>0</b> | <b>5</b> | <b>0</b>          | <b>0</b> | <b>5</b> | <b>0</b> | <b>5</b> | <b>8</b>          | <b>3</b>  | <b>0</b> | <b>0</b> | <b>11</b> | <b>23</b> |  |    |
| Approach %         | 100.0          | 0.0      | 0.0       | 0.0      |          | 20.0                        | 80.0       | 0.0       | 0.0      |          | 0.0               | 0.0      | 100.0    | 0.0      |          | 72.7              | 27.3      | 0.0      | 0.0      |           |           |  |    |
| Total %            | 8.7            | 0.0      | 0.0       | 0.0      | 8.7      | 4.3                         | 17.4       | 0.0       | 0.0      | 21.7     | 0.0               | 0.0      | 21.7     | 0.0      | 21.7     | 34.8              | 13.0      | 0.0      | 0.0      | 47.8      |           |  |    |
| Exiting Leg Total  |                |          |           |          |          | 1                           |            |           |          |          | 3                 |          |          |          |          | 8                 |           |          |          |           | 11        |  | 23 |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                     | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |          | Washington Street |           |          |          |           | Total     |
|---------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|----------|-------------------|-----------|----------|----------|-----------|-----------|
|                     | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |          | from West         |           |          |          |           |           |
|                     | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total    | Thru              | Bear Left | Left     | U-Turn   | Total     |           |
| 4:00 PM             | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 0                 | 0         | 0        | 0        | 0         | 2         |
| 4:15 PM             | 0              | 0        | 0         | 0        | 0        | 0                           | 2          | 0         | 0        | 2        | 0                 | 0        | 0        | 0        | 0        | 4                 | 2         | 0        | 0        | 6         | 8         |
| 4:30 PM             | 1              | 0        | 0         | 0        | 1        | 1                           | 0          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 2                 | 1         | 0        | 0        | 3         | 6         |
| 4:45 PM             | 1              | 0        | 0         | 0        | 1        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1                 | 0         | 0        | 0        | 1         | 2         |
| <b>Total Volume</b> | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>1</b>                    | <b>3</b>   | <b>0</b>  | <b>0</b> | <b>4</b> | <b>0</b>          | <b>0</b> | <b>2</b> | <b>0</b> | <b>2</b> | <b>7</b>          | <b>3</b>  | <b>0</b> | <b>0</b> | <b>10</b> | <b>18</b> |
| % Approach Total    | 100.0          | 0.0      | 0.0       | 0.0      |          | 25.0                        | 75.0       | 0.0       | 0.0      |          | 0.0               | 0.0      | 100.0    | 0.0      |          | 70.0              | 30.0      | 0.0      | 0.0      |           |           |
| PHF                 | 0.500          | 0.000    | 0.000     | 0.000    | 0.500    | 0.250                       | 0.375      | 0.000     | 0.000    | 0.500    | 0.000             | 0.000    | 0.500    | 0.000    | 0.500    | 0.438             | 0.375     | 0.000    | 0.000    | 0.417     | 0.563     |
| Entering Leg        | 2              |          |           |          |          | 1                           |            |           |          |          | 0                 |          |          |          |          | 7                 |           |          |          |           | 18        |
| Exiting Leg         | 1              |          |           |          |          | 3                           |            |           |          |          | 7                 |          |          |          |          | 7                 |           |          |          |           | 18        |
| <b>Total</b>        | <b>3</b>       |          |           |          |          | <b>7</b>                    |            |           |          |          | <b>9</b>          |          |          |          |          | <b>17</b>         |           |          |          |           | <b>36</b> |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Single-Unit Trucks**

|                   | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |          | Washington Street |           |          |          |          | Total     |
|-------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|----------|-------------------|-----------|----------|----------|----------|-----------|
|                   | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |          | from West         |           |          |          |          |           |
|                   | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total    | Thru              | Bear Left | Left     | U-Turn   | Total    |           |
| 4:00 PM           | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1                 | 2         | 0        | 0        | 3        | 3         |
| 4:15 PM           | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0         |
| 4:30 PM           | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 0                 | 1         | 0        | 0        | 1        | 3         |
| 4:45 PM           | 3              | 0        | 0         | 0        | 3        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 0                 | 0         | 0        | 0        | 0        | 4         |
| <b>Total</b>      | <b>3</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>3</b> | <b>0</b>                    | <b>1</b>   | <b>0</b>  | <b>0</b> | <b>1</b> | <b>0</b>          | <b>0</b> | <b>2</b> | <b>0</b> | <b>2</b> | <b>1</b>          | <b>3</b>  | <b>0</b> | <b>0</b> | <b>4</b> | <b>10</b> |
| 5:00 PM           | 0              | 0        | 0         | 0        | 0        | 0                           | 2          | 0         | 0        | 2        | 0                 | 0        | 1        | 0        | 1        | 0                 | 1         | 0        | 0        | 1        | 4         |
| 5:15 PM           | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 0                 | 1         | 0        | 0        | 1        | 2         |
| 5:30 PM           | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 2                 | 1         | 0        | 0        | 3        | 4         |
| 5:45 PM           | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 0                 | 1         | 0        | 0        | 1        | 2         |
| <b>Total</b>      | <b>0</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>                    | <b>3</b>   | <b>0</b>  | <b>0</b> | <b>3</b> | <b>0</b>          | <b>0</b> | <b>3</b> | <b>0</b> | <b>3</b> | <b>2</b>          | <b>4</b>  | <b>0</b> | <b>0</b> | <b>6</b> | <b>12</b> |
| Grand Total       | 3              | 0        | 0         | 0        | 3        | 0                           | 4          | 0         | 0        | 4        | 0                 | 0        | 5        | 0        | 5        | 3                 | 7         | 0        | 0        | 10       | 22        |
| Approach %        | 100.0          | 0.0      | 0.0       | 0.0      |          | 0.0                         | 100.0      | 0.0       | 0.0      |          | 0.0               | 0.0      | 100.0    | 0.0      |          | 30.0              | 70.0      | 0.0      | 0.0      |          |           |
| Total %           | 13.6           | 0.0      | 0.0       | 0.0      | 13.6     | 0.0                         | 18.2       | 0.0       | 0.0      | 18.2     | 0.0               | 0.0      | 22.7     | 0.0      | 22.7     | 13.6              | 31.8      | 0.0      | 0.0      | 45.5     |           |
| Exiting Leg Total | 0              |          |           |          |          | 7                           |            |           |          |          | 3                 |          |          |          |          | 12                |           |          |          |          | 22        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |       |        |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|-------|--------|-------|-------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |       |        |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |
| 4:45 PM          | 3              | 0     | 0         | 0      | 3     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 0                 | 0         | 0     | 0      | 0     | 4     |
| 5:00 PM          | 0              | 0     | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 1     | 0      | 1     | 0                 | 1         | 0     | 0      | 1     | 4     |
| 5:15 PM          | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 0                 | 1         | 0     | 0      | 1     | 2     |
| 5:30 PM          | 0              | 0     | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0     | 0      | 0     | 2                 | 1         | 0     | 0      | 3     | 4     |
| Total Volume     | 3              | 0     | 0         | 0      | 3     | 0                           | 3          | 0         | 0      | 3     | 0                 | 0     | 3     | 0      | 3     | 2                 | 3         | 0     | 0      | 5     | 14    |
| % Approach Total | 100.0          | 0.0   | 0.0       | 0.0    |       | 0.0                         | 100.0      | 0.0       | 0.0    |       | 0.0               | 0.0   | 100.0 | 0.0    |       | 40.0              | 60.0      | 0.0   | 0.0    |       |       |
| PHF              | 0.250          | 0.000 | 0.000     | 0.000  | 0.250 | 0.000                       | 0.375      | 0.000     | 0.000  | 0.375 | 0.000             | 0.000 | 0.750 | 0.000  | 0.750 | 0.250             | 0.750     | 0.000 | 0.000  | 0.417 | 0.875 |
| Entering Leg     | 3              | 0     | 0         | 0      | 3     | 0                           | 3          | 0         | 0      | 3     | 0                 | 0     | 3     | 0      | 3     | 2                 | 3         | 0     | 0      | 5     | 14    |
| Exiting Leg      | 0              |       |           |        |       | 3                           |            |           |        |       | 2                 |       |       |        |       | 9                 |           |       |        |       | 14    |
| Total            | 3              |       |           |        |       | 6                           |            |           |        |       | 5                 |       |       |        |       | 14                |           |       |        |       | 28    |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Articulated Trucks**

|                    | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |      |        |       | Total |
|--------------------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|------|--------|-------|-------|
|                    | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |      |        |       |       |
|                    | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left | U-Turn | Total |       |
| 4:00 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                 | 0         | 0    | 0      | 1     | 1     |
| 4:15 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                 | 0         | 0    | 0      | 1     | 1     |
| 4:30 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                 | 0         | 0    | 0      | 1     | 1     |
| 4:45 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 0                 | 0         | 0    | 0      | 0     | 1     |
| <b>Total</b>       | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 3                 | 0         | 0    | 0      | 3     | 4     |
| 5:00 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0                 | 0         | 0    | 0      | 0     | 0     |
| 5:15 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0                 | 0         | 0    | 0      | 0     | 0     |
| 5:30 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                 | 0         | 0    | 0      | 1     | 1     |
| 5:45 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0                 | 0         | 0    | 0      | 0     | 0     |
| <b>Total</b>       | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                 | 0         | 0    | 0      | 1     | 1     |
| <b>Grand Total</b> | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 4                 | 0         | 0    | 0      | 4     | 5     |
| Approach %         | 0.0            | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                         | 0.0        | 0.0       | 0.0    | 0.0   | 0.0               | 0.0   | 100.0 | 0.0    | 0.0   | 100.0             | 0.0       | 0.0  | 0.0    | 0.0   | 0.0   |
| Total %            | 0.0            | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                         | 0.0        | 0.0       | 0.0    | 0.0   | 0.0               | 0.0   | 20.0  | 0.0    | 20.0  | 80.0              | 0.0       | 0.0  | 0.0    | 80.0  | 80.0  |
| Exiting Leg Total  | 0              |      |           |        |       | 0                           |            |           |        |       | 4                 |       |       |        |       | 1                 |           |      |        |       | 5     |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                         | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street |           |       |        |       | Total |
|-------------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|-------------------|-----------|-------|--------|-------|-------|
|                         | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West         |           |       |        |       |       |
|                         | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru              | Bear Left | Left  | U-Turn | Total |       |
| 4:00 PM                 | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                 | 0         | 0     | 0      | 1     | 1     |
| 4:15 PM                 | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                 | 0         | 0     | 0      | 1     | 1     |
| 4:30 PM                 | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                 | 0         | 0     | 0      | 1     | 1     |
| 4:45 PM                 | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 0                 | 0         | 0     | 0      | 0     | 1     |
| <b>Total Volume</b>     | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 3                 | 0         | 0     | 0      | 3     | 4     |
| <b>% Approach Total</b> | 0.0            | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                         | 0.0        | 0.0       | 0.0    | 0.0   | 0.0               | 0.0   | 100.0 | 0.0    | 0.0   | 100.0             | 0.0       | 0.0   | 0.0    | 0.0   | 0.0   |
| PHF                     | 0.000          | 0.000 | 0.000     | 0.000  | 0.000 | 0.000                       | 0.000      | 0.000     | 0.000  | 0.000 | 0.000             | 0.000 | 0.250 | 0.000  | 0.250 | 0.750             | 0.000     | 0.000 | 0.000  | 0.750 | 1.000 |
| Entering Leg            | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 3                 | 0         | 0     | 0      | 3     | 4     |
| Exiting Leg             | 0              |       |           |        |       | 0                           |            |           |        |       | 3                 |       |       |        |       | 1                 |           |       |        |       | 4     |
| <b>Total</b>            | 0              |       |           |        |       | 0                           |            |           |        |       | 4                 |       |       |        |       | 4                 |           |       |        |       | 8     |



PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Bicycles (on Roadway and Crosswalks)**

|                    | Waltham Street |          |           |          |          |          |          | Watertown Street (Route 16) |            |           |          |          |          |          | Washington Street |          |          |          |          |          |          | Washington Street |           |          |          |          |          |          | Total     |
|--------------------|----------------|----------|-----------|----------|----------|----------|----------|-----------------------------|------------|-----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|-------------------|-----------|----------|----------|----------|----------|----------|-----------|
|                    | from North     |          |           |          |          |          |          | from Northeast              |            |           |          |          |          |          | from East         |          |          |          |          |          |          | from West         |           |          |          |          |          |          |           |
|                    | Right          | Left     | Hard Left | U-Turn   | CW-EB    | CW-WB    | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | CW-SEB   | CW-NWB   | Total    | Hard Right        | Right    | Thru     | U-Turn   | CW-SB    | CW-NB    | Total    | Thru              | Bear Left | Left     | U-Turn   | CW-NB    | CW-SB    | Total    |           |
| 4:00 PM            | 0              | 0        | 0         | 0        | 0        | 0        | 0        | 0                           | 1          | 0         | 0        | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 2                 | 0         | 0        | 0        | 0        | 0        | 2        | 3         |
| 4:15 PM            | 0              | 0        | 0         | 0        | 0        | 0        | 0        | 0                           | 1          | 0         | 0        | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 1         |
| 4:30 PM            | 0              | 0        | 0         | 0        | 0        | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 2        | 2        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 2         |
| 4:45 PM            | 0              | 0        | 0         | 0        | 0        | 2        | 2        | 0                           | 0          | 0         | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 2         |
| <b>Total</b>       | <b>0</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>2</b> | <b>2</b> | <b>0</b>                    | <b>2</b>   | <b>0</b>  | <b>0</b> | <b>0</b> | <b>2</b> | <b>4</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b>          | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>8</b>  |
| 5:00 PM            | 0              | 0        | 0         | 0        | 0        | 0        | 0        | 0                           | 1          | 0         | 0        | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 1         |
| 5:15 PM            | 1              | 0        | 0         | 0        | 0        | 1        | 2        | 0                           | 0          | 0         | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 2         |
| 5:30 PM            | 0              | 0        | 0         | 0        | 0        | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| 5:45 PM            | 0              | 0        | 0         | 0        | 0        | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 0         |
| <b>Total</b>       | <b>1</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>1</b> | <b>2</b> | <b>0</b>                    | <b>1</b>   | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b>  |
| <b>Grand Total</b> | <b>1</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>3</b> | <b>4</b> | <b>0</b>                    | <b>3</b>   | <b>0</b>  | <b>0</b> | <b>0</b> | <b>2</b> | <b>5</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b>          | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>11</b> |
| Approach %         | 25.0           | 0.0      | 0.0       | 0.0      | 0.0      | 75.0     |          | 0.0                         | 60.0       | 0.0       | 0.0      | 0.0      | 40.0     |          | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |          | 100.0             | 0.0       | 0.0      | 0.0      | 0.0      | 0.0      |          |           |
| Total %            | 9.1            | 0.0      | 0.0       | 0.0      | 0.0      | 27.3     | 36.4     | 0.0                         | 27.3       | 0.0       | 0.0      | 0.0      | 18.2     | 45.5     | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |          | 18.2              | 0.0       | 0.0      | 0.0      | 0.0      | 0.0      | 18.2     |           |
| Exiting Leg Total  | 3              |          |           |          |          |          |          | 2                           |            |           |          |          |          |          | 2                 |          |          |          |          |          |          | 4                 | 11        |          |          |          |          |          |           |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                     | Waltham Street |          |           |          |          |          |          | Watertown Street (Route 16) |            |           |          |          |          |          | Washington Street |          |          |          |          |          |          | Washington Street |           |          |          |          |          |          | Total    |
|---------------------|----------------|----------|-----------|----------|----------|----------|----------|-----------------------------|------------|-----------|----------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|----------|-------------------|-----------|----------|----------|----------|----------|----------|----------|
|                     | from North     |          |           |          |          |          |          | from Northeast              |            |           |          |          |          |          | from East         |          |          |          |          |          |          | from West         |           |          |          |          |          |          |          |
|                     | Right          | Left     | Hard Left | U-Turn   | CW-EB    | CW-WB    | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | CW-SEB   | CW-NWB   | Total    | Hard Right        | Right    | Thru     | U-Turn   | CW-SB    | CW-NB    | Total    | Thru              | Bear Left | Left     | U-Turn   | CW-NB    | CW-SB    | Total    |          |
| 4:00 PM             | 0              | 0        | 0         | 0        | 0        | 0        | 0        | 0                           | 1          | 0         | 0        | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 2                 | 0         | 0        | 0        | 0        | 0        | 2        | 3        |
| 4:15 PM             | 0              | 0        | 0         | 0        | 0        | 0        | 0        | 0                           | 1          | 0         | 0        | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 1        |
| 4:30 PM             | 0              | 0        | 0         | 0        | 0        | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 2        | 2        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 2        |
| 4:45 PM             | 0              | 0        | 0         | 0        | 0        | 2        | 2        | 0                           | 0          | 0         | 0        | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 0                 | 0         | 0        | 0        | 0        | 0        | 0        | 2        |
| <b>Total Volume</b> | <b>0</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>2</b> | <b>2</b> | <b>0</b>                    | <b>2</b>   | <b>0</b>  | <b>0</b> | <b>0</b> | <b>2</b> | <b>4</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b>          | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>8</b> |
| % Approach Total    | 0.0            | 0.0      | 0.0       | 0.0      | 0.0      | 100.0    |          | 0.0                         | 50.0       | 0.0       | 0.0      | 0.0      | 50.0     |          | 0.0               | 0.0      | 0.0      | 0.0      | 0.0      | 0.0      |          | 100.0             | 0.0       | 0.0      | 0.0      | 0.0      | 0.0      |          |          |
| PHF                 | 0.000          | 0.000    | 0.000     | 0.000    | 0.000    | 0.250    | 0.250    | 0.000                       | 0.500      | 0.000     | 0.000    | 0.000    | 0.250    | 0.500    | 0.000             | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |          | 0.250             | 0.000     | 0.000    | 0.000    | 0.000    | 0.000    | 0.250    | 0.667    |
| Entering Leg        | 0              | 0        | 0         | 0        | 0        | 2        | 2        | 0                           | 2          | 0         | 0        | 0        | 2        | 4        | 0                 | 0        | 0        | 0        | 0        | 0        | 0        | 2                 | 0         | 0        | 0        | 0        | 0        | 2        | 8        |
| Exiting Leg         | 2              |          |           |          |          |          |          | 2                           |            |           |          |          |          |          | 2                 |          |          |          |          |          |          | 2                 | 8         |          |          |          |          |          |          |
| <b>Total</b>        | <b>4</b>       |          |           |          |          |          |          | <b>6</b>                    |            |           |          |          |          |          | <b>2</b>          |          |          |          |          |          |          | <b>4</b>          | <b>16</b> |          |          |          |          |          |          |

PDI File #: **228414 D**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class: **Pedestrians**



**Pedestrians**

|                   | Waltham Street |      |           |        |       |       |       | Watertown Street (Route 16) |            |           |        |        |        |       | Washington Street |       |      |        |       |       |       | Washington Street |           |      |        |       |       |       | Total |
|-------------------|----------------|------|-----------|--------|-------|-------|-------|-----------------------------|------------|-----------|--------|--------|--------|-------|-------------------|-------|------|--------|-------|-------|-------|-------------------|-----------|------|--------|-------|-------|-------|-------|
|                   | from North     |      |           |        |       |       |       | from Northeast              |            |           |        |        |        |       | from East         |       |      |        |       |       |       | from West         |           |      |        |       |       |       |       |
|                   | Right          | Left | Hard Left | U-Turn | CW-EB | CW-WB | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | CW-SEB | CW-NWB | Total | Hard Right        | Right | Thru | U-Turn | CW-SB | CW-NB | Total | Thru              | Bear Left | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 4:00 PM           | 0              | 0    | 0         | 0      | 6     | 8     | 14    | 0                           | 0          | 0         | 0      | 5      | 8      | 13    | 0                 | 0     | 0    | 0      | 2     | 3     | 5     | 0                 | 0         | 0    | 0      | 6     | 3     | 9     | 41    |
| 4:15 PM           | 0              | 0    | 0         | 0      | 0     | 1     | 1     | 0                           | 0          | 0         | 0      | 5      | 9      | 14    | 0                 | 0     | 0    | 0      | 0     | 1     | 1     | 0                 | 0         | 0    | 0      | 0     | 1     | 1     | 17    |
| 4:30 PM           | 0              | 0    | 0         | 0      | 3     | 11    | 14    | 0                           | 0          | 0         | 0      | 1      | 7      | 8     | 0                 | 0     | 0    | 0      | 0     | 2     | 2     | 0                 | 0         | 0    | 0      | 2     | 3     | 5     | 29    |
| 4:45 PM           | 0              | 0    | 0         | 0      | 6     | 3     | 9     | 0                           | 0          | 0         | 0      | 2      | 5      | 7     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0                 | 0         | 0    | 0      | 2     | 0     | 2     | 18    |
| Total             | 0              | 0    | 0         | 0      | 15    | 23    | 38    | 0                           | 0          | 0         | 0      | 13     | 29     | 42    | 0                 | 0     | 0    | 0      | 2     | 6     | 8     | 0                 | 0         | 0    | 0      | 10    | 7     | 17    | 105   |
| 5:00 PM           | 0              | 0    | 0         | 0      | 6     | 2     | 8     | 0                           | 0          | 0         | 0      | 3      | 2      | 5     | 0                 | 0     | 0    | 0      | 0     | 2     | 2     | 0                 | 0         | 0    | 0      | 4     | 1     | 5     | 20    |
| 5:15 PM           | 0              | 0    | 0         | 0      | 1     | 7     | 8     | 0                           | 0          | 0         | 0      | 3      | 3      | 6     | 0                 | 0     | 0    | 0      | 2     | 4     | 6     | 0                 | 0         | 0    | 0      | 2     | 2     | 4     | 24    |
| 5:30 PM           | 0              | 0    | 0         | 0      | 0     | 0     | 0     | 0                           | 0          | 0         | 0      | 1      | 4      | 5     | 0                 | 0     | 0    | 0      | 1     | 4     | 5     | 0                 | 0         | 0    | 0      | 1     | 3     | 4     | 14    |
| 5:45 PM           | 0              | 0    | 0         | 0      | 5     | 5     | 10    | 0                           | 0          | 0         | 0      | 2      | 1      | 3     | 0                 | 0     | 0    | 0      | 1     | 1     | 2     | 0                 | 0         | 0    | 0      | 7     | 3     | 10    | 25    |
| Total             | 0              | 0    | 0         | 0      | 12    | 14    | 26    | 0                           | 0          | 0         | 0      | 9      | 10     | 19    | 0                 | 0     | 0    | 0      | 4     | 11    | 15    | 0                 | 0         | 0    | 0      | 14    | 9     | 23    | 83    |
| Grand Total       | 0              | 0    | 0         | 0      | 27    | 37    | 64    | 0                           | 0          | 0         | 0      | 22     | 39     | 61    | 0                 | 0     | 0    | 0      | 6     | 17    | 23    | 0                 | 0         | 0    | 0      | 24    | 16    | 40    | 188   |
| Approach %        | 0              | 0    | 0         | 0      | 42.2  | 57.8  |       | 0                           | 0          | 0         | 0      | 36.1   | 63.9   |       | 0                 | 0     | 0    | 0      | 26.1  | 73.9  |       | 0                 | 0         | 0    | 0      | 60    | 40    |       |       |
| Total %           | 0              | 0    | 0         | 0      | 14.4  | 19.7  | 34    | 0                           | 0          | 0         | 0      | 11.7   | 20.7   | 32.4  | 0                 | 0     | 0    | 0      | 3.19  | 9.04  | 12.2  | 0                 | 0         | 0    | 0      | 12.8  | 8.51  | 21.3  |       |
| Exiting Leg Total | 64             |      |           |        |       |       |       | 61                          |            |           |        |        |        |       | 23                |       |      |        |       |       |       | 40                | 188       |      |        |       |       |       |       |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM          | Waltham Street |       |           |        |       |       |       | Watertown Street (Route 16) |            |           |        |        |        |       | Washington Street |       |       |        |       |       |       | Washington Street |           |       |        |       |       |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-------|-------|-----------------------------|------------|-----------|--------|--------|--------|-------|-------------------|-------|-------|--------|-------|-------|-------|-------------------|-----------|-------|--------|-------|-------|-------|-------|
|                  | from North     |       |           |        |       |       |       | from Northeast              |            |           |        |        |        |       | from East         |       |       |        |       |       |       | from West         |           |       |        |       |       |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | CW-EB | CW-WB | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | CW-SEB | CW-NWB | Total | Hard Right        | Right | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru              | Bear Left | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 4:00 PM          | 0              | 0     | 0         | 0      | 6     | 8     | 14    | 0                           | 0          | 0         | 0      | 5      | 8      | 13    | 0                 | 0     | 0     | 0      | 2     | 3     | 5     | 0                 | 0         | 0     | 0      | 6     | 3     | 9     | 41    |
| 4:15 PM          | 0              | 0     | 0         | 0      | 0     | 1     | 1     | 0                           | 0          | 0         | 0      | 5      | 9      | 14    | 0                 | 0     | 0     | 0      | 0     | 1     | 1     | 0                 | 0         | 0     | 0      | 0     | 1     | 1     | 17    |
| 4:30 PM          | 0              | 0     | 0         | 0      | 3     | 11    | 14    | 0                           | 0          | 0         | 0      | 1      | 7      | 8     | 0                 | 0     | 0     | 0      | 0     | 2     | 2     | 0                 | 0         | 0     | 0      | 2     | 3     | 5     | 29    |
| 4:45 PM          | 0              | 0     | 0         | 0      | 6     | 3     | 9     | 0                           | 0          | 0         | 0      | 2      | 5      | 7     | 0                 | 0     | 0     | 0      | 0     | 0     | 0     | 0                 | 0         | 0     | 0      | 2     | 0     | 2     | 18    |
| Total Volume     | 0              | 0     | 0         | 0      | 15    | 23    | 38    | 0                           | 0          | 0         | 0      | 13     | 29     | 42    | 0                 | 0     | 0     | 0      | 2     | 6     | 8     | 0                 | 0         | 0     | 0      | 10    | 7     | 17    | 105   |
| % Approach Total | 0.0            | 0.0   | 0.0       | 0.0    | 39.5  | 60.5  |       | 0.0                         | 0.0        | 0.0       | 0.0    | 31.0   | 69.0   |       | 0.0               | 0.0   | 0.0   | 0.0    | 25.0  | 75.0  |       | 0.0               | 0.0       | 0.0   | 0.0    | 58.8  | 41.2  |       |       |
| PHF              | 0.000          | 0.000 | 0.000     | 0.000  | 0.625 | 0.523 | 0.679 | 0.000                       | 0.000      | 0.000     | 0.000  | 0.650  | 0.806  | 0.750 | 0.000             | 0.000 | 0.000 | 0.000  | 0.250 | 0.500 | 0.400 | 0.000             | 0.000     | 0.000 | 0.000  | 0.417 | 0.583 | 0.472 | 0.640 |
| Entering Leg     | 0              | 0     | 0         | 0      | 15    | 23    | 38    | 0                           | 0          | 0         | 0      | 13     | 29     | 42    | 0                 | 0     | 0     | 0      | 2     | 6     | 8     | 0                 | 0         | 0     | 0      | 10    | 7     | 17    | 105   |
| Exiting Leg      | 38             |       |           |        |       |       |       | 42                          |            |           |        |        |        |       | 8                 |       |       |        |       |       |       | 17                | 105       |       |        |       |       |       |       |
| Total            | 76             |       |           |        |       |       |       | 84                          |            |           |        |        |        |       | 16                |       |       |        |       |       |       | 34                | 210       |       |        |       |       |       |       |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Washington Street |            |          |            | Chestnut Street |           |          |            | Washington Street |            |          |            | Total       |
|-------------------|-------------------|------------|----------|------------|-----------------|-----------|----------|------------|-------------------|------------|----------|------------|-------------|
|                   | from East         |            |          |            | from South      |           |          |            | from West         |            |          |            |             |
|                   | Thru              | Left       | U-Turn   | Total      | Right           | Left      | U-Turn   | Total      | Right             | Thru       | U-Turn   | Total      |             |
| 7:00 AM           | 30                | 10         | 0        | 40         | 22              | 4         | 0        | 26         | 5                 | 47         | 0        | 52         | 118         |
| 7:15 AM           | 45                | 18         | 0        | 63         | 11              | 4         | 0        | 15         | 5                 | 74         | 0        | 79         | 157         |
| 7:30 AM           | 40                | 22         | 0        | 62         | 32              | 2         | 0        | 34         | 12                | 119        | 0        | 131        | 227         |
| 7:45 AM           | 66                | 33         | 0        | 99         | 48              | 6         | 0        | 54         | 6                 | 111        | 0        | 117        | 270         |
| <b>Total</b>      | <b>181</b>        | <b>83</b>  | <b>0</b> | <b>264</b> | <b>113</b>      | <b>16</b> | <b>0</b> | <b>129</b> | <b>28</b>         | <b>351</b> | <b>0</b> | <b>379</b> | <b>772</b>  |
| 8:00 AM           | 48                | 39         | 1        | 88         | 34              | 4         | 0        | 38         | 6                 | 106        | 0        | 112        | 238         |
| 8:15 AM           | 68                | 37         | 0        | 105        | 34              | 1         | 0        | 35         | 9                 | 102        | 0        | 111        | 251         |
| 8:30 AM           | 55                | 35         | 0        | 90         | 39              | 2         | 0        | 41         | 12                | 103        | 0        | 115        | 246         |
| 8:45 AM           | 67                | 42         | 0        | 109        | 48              | 4         | 0        | 52         | 22                | 122        | 0        | 144        | 305         |
| <b>Total</b>      | <b>238</b>        | <b>153</b> | <b>1</b> | <b>392</b> | <b>155</b>      | <b>11</b> | <b>0</b> | <b>166</b> | <b>49</b>         | <b>433</b> | <b>0</b> | <b>482</b> | <b>1040</b> |
| Grand Total       | 419               | 236        | 1        | 656        | 268             | 27        | 0        | 295        | 77                | 784        | 0        | 861        | 1812        |
| Approach %        | 63.9              | 36.0       | 0.2      |            | 90.8            | 9.2       | 0.0      |            | 8.9               | 91.1       | 0.0      |            |             |
| Total %           | 23.1              | 13.0       | 0.1      | 36.2       | 14.8            | 1.5       | 0.0      | 16.3       | 4.2               | 43.3       | 0.0      | 47.5       |             |
| Exiting Leg Total |                   |            |          | 1053       |                 |           |          | 313        |                   |            |          | 446        | 1812        |
| Cars              | 399               | 225        | 1        | 625        | 259             | 27        | 0        | 286        | 76                | 761        | 0        | 837        | 1748        |
| % Cars            | 95.2              | 95.3       | 100.0    | 95.3       | 96.6            | 100.0     | 0.0      | 96.9       | 98.7              | 97.1       | 0.0      | 97.2       | 96.5        |
| Exiting Leg Total |                   |            |          | 1021       |                 |           |          | 301        |                   |            |          | 426        | 1748        |
| Heavy Vehicles    | 20                | 11         | 0        | 31         | 9               | 0         | 0        | 9          | 1                 | 23         | 0        | 24         | 64          |
| % Heavy Vehicles  | 4.8               | 4.7        | 0.0      | 4.7        | 3.4             | 0.0       | 0.0      | 3.1        | 1.3               | 2.9        | 0.0      | 2.8        | 3.5         |
| Exiting Leg Total |                   |            |          | 32         |                 |           |          | 12         |                   |            |          | 20         | 64          |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 8:00 AM            | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|--------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                    | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                    | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 8:00 AM            | 48                | 39    | 1      | 88    | 34              | 4     | 0      | 38    | 6                 | 106   | 0      | 112   | 238   |
| 8:15 AM            | 68                | 37    | 0      | 105   | 34              | 1     | 0      | 35    | 9                 | 102   | 0      | 111   | 251   |
| 8:30 AM            | 55                | 35    | 0      | 90    | 39              | 2     | 0      | 41    | 12                | 103   | 0      | 115   | 246   |
| 8:45 AM            | 67                | 42    | 0      | 109   | 48              | 4     | 0      | 52    | 22                | 122   | 0      | 144   | 305   |
| Total Volume       | 238               | 153   | 1      | 392   | 155             | 11    | 0      | 166   | 49                | 433   | 0      | 482   | 1040  |
| % Approach Total   | 60.7              | 39.0  | 0.3    |       | 93.4            | 6.6   | 0.0    |       | 10.2              | 89.8  | 0.0    |       |       |
| PHF                | 0.875             | 0.911 | 0.250  | 0.899 | 0.807           | 0.688 | 0.000  | 0.798 | 0.557             | 0.887 | 0.000  | 0.837 | 0.852 |
| Cars               | 227               | 148   | 1      | 376   | 153             | 11    | 0      | 164   | 48                | 420   | 0      | 468   | 1008  |
| Cars %             | 95.4              | 96.7  | 100.0  | 95.9  | 98.7            | 100.0 | 0.0    | 98.8  | 98.0              | 97.0  | 0.0    | 97.1  | 96.9  |
| Heavy Vehicles     | 11                | 5     | 0      | 16    | 2               | 0     | 0      | 2     | 1                 | 13    | 0      | 14    | 32    |
| Heavy Vehicles %   | 4.6               | 3.3   | 0.0    | 4.1   | 1.3             | 0.0   | 0.0    | 1.2   | 2.0               | 3.0   | 0.0    | 2.9   | 3.1   |
| Cars Enter Leg     | 227               | 148   | 1      | 376   | 153             | 11    | 0      | 164   | 48                | 420   | 0      | 468   | 1008  |
| Heavy Enter Leg    | 11                | 5     | 0      | 16    | 2               | 0     | 0      | 2     | 1                 | 13    | 0      | 14    | 32    |
| Total Entering Leg | 238               | 153   | 1      | 392   | 155             | 11    | 0      | 166   | 49                | 433   | 0      | 482   | 1040  |
| Cars Exiting Leg   |                   |       |        | 574   |                 |       |        | 196   |                   |       |        | 238   | 1008  |
| Heavy Exiting Leg  |                   |       |        | 15    |                 |       |        | 6     |                   |       |        | 11    | 32    |
| Total Exiting Leg  |                   |       |        | 589   |                 |       |        | 202   |                   |       |        | 249   | 1040  |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars**

|                   | Washington Street |            |          |            | Chestnut Street |           |          |            | Washington Street |            |          |            | Total       |
|-------------------|-------------------|------------|----------|------------|-----------------|-----------|----------|------------|-------------------|------------|----------|------------|-------------|
|                   | from East         |            |          |            | from South      |           |          |            | from West         |            |          |            |             |
|                   | Thru              | Left       | U-Turn   | Total      | Right           | Left      | U-Turn   | Total      | Right             | Thru       | U-Turn   | Total      |             |
| 7:00 AM           | 28                | 9          | 0        | 37         | 21              | 4         | 0        | 25         | 5                 | 45         | 0        | 50         | 112         |
| 7:15 AM           | 40                | 17         | 0        | 57         | 7               | 4         | 0        | 11         | 5                 | 70         | 0        | 75         | 143         |
| 7:30 AM           | 39                | 21         | 0        | 60         | 31              | 2         | 0        | 33         | 12                | 116        | 0        | 128        | 221         |
| 7:45 AM           | 65                | 30         | 0        | 95         | 47              | 6         | 0        | 53         | 6                 | 110        | 0        | 116        | 264         |
| <b>Total</b>      | <b>172</b>        | <b>77</b>  | <b>0</b> | <b>249</b> | <b>106</b>      | <b>16</b> | <b>0</b> | <b>122</b> | <b>28</b>         | <b>341</b> | <b>0</b> | <b>369</b> | <b>740</b>  |
| 8:00 AM           | 44                | 36         | 1        | 81         | 33              | 4         | 0        | 37         | 6                 | 102        | 0        | 108        | 226         |
| 8:15 AM           | 66                | 37         | 0        | 103        | 34              | 1         | 0        | 35         | 9                 | 98         | 0        | 107        | 245         |
| 8:30 AM           | 54                | 33         | 0        | 87         | 39              | 2         | 0        | 41         | 11                | 100        | 0        | 111        | 239         |
| 8:45 AM           | 63                | 42         | 0        | 105        | 47              | 4         | 0        | 51         | 22                | 120        | 0        | 142        | 298         |
| <b>Total</b>      | <b>227</b>        | <b>148</b> | <b>1</b> | <b>376</b> | <b>153</b>      | <b>11</b> | <b>0</b> | <b>164</b> | <b>48</b>         | <b>420</b> | <b>0</b> | <b>468</b> | <b>1008</b> |
| Grand Total       | 399               | 225        | 1        | 625        | 259             | 27        | 0        | 286        | 76                | 761        | 0        | 837        | 1748        |
| Approach %        | 63.8              | 36.0       | 0.2      |            | 90.6            | 9.4       | 0.0      |            | 9.1               | 90.9       | 0.0      |            |             |
| Total %           | 22.8              | 12.9       | 0.1      | 35.8       | 14.8            | 1.5       | 0.0      | 16.4       | 4.3               | 43.5       | 0.0      | 47.9       |             |
| Exiting Leg Total |                   |            |          | 1021       |                 |           |          | 301        |                   |            |          | 426        | 1748        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                  | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                  | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 8:00 AM          | 44                | 36    | 1      | 81    | 33              | 4     | 0      | 37    | 6                 | 102   | 0      | 108   | 226   |
| 8:15 AM          | 66                | 37    | 0      | 103   | 34              | 1     | 0      | 35    | 9                 | 98    | 0      | 107   | 245   |
| 8:30 AM          | 54                | 33    | 0      | 87    | 39              | 2     | 0      | 41    | 11                | 100   | 0      | 111   | 239   |
| 8:45 AM          | 63                | 42    | 0      | 105   | 47              | 4     | 0      | 51    | 22                | 120   | 0      | 142   | 298   |
| Total Volume     | 227               | 148   | 1      | 376   | 153             | 11    | 0      | 164   | 48                | 420   | 0      | 468   | 1008  |
| % Approach Total | 60.4              | 39.4  | 0.3    |       | 93.3            | 6.7   | 0.0    |       | 10.3              | 89.7  | 0.0    |       |       |
| PHF              | 0.860             | 0.881 | 0.250  | 0.895 | 0.814           | 0.688 | 0.000  | 0.804 | 0.545             | 0.875 | 0.000  | 0.824 | 0.846 |
| Entering Leg     | 227               | 148   | 1      | 376   | 153             | 11    | 0      | 164   | 48                | 420   | 0      | 468   | 1008  |
| Exiting Leg      |                   |       |        | 574   |                 |       |        | 196   |                   |       |        | 238   | 1008  |
| Total            |                   |       |        | 950   |                 |       |        | 360   |                   |       |        | 706   | 2016  |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Washington Street |          |          |           | Chestnut Street |          |          |          | Washington Street |           |          |           | Total     |
|--------------------|-------------------|----------|----------|-----------|-----------------|----------|----------|----------|-------------------|-----------|----------|-----------|-----------|
|                    | from East         |          |          |           | from South      |          |          |          | from West         |           |          |           |           |
|                    | Thru              | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right             | Thru      | U-Turn   | Total     |           |
| 7:00 AM            | 2                 | 1        | 0        | 3         | 1               | 0        | 0        | 1        | 0                 | 2         | 0        | 2         | 6         |
| 7:15 AM            | 5                 | 1        | 0        | 6         | 4               | 0        | 0        | 4        | 0                 | 4         | 0        | 4         | 14        |
| 7:30 AM            | 1                 | 1        | 0        | 2         | 1               | 0        | 0        | 1        | 0                 | 3         | 0        | 3         | 6         |
| 7:45 AM            | 1                 | 3        | 0        | 4         | 1               | 0        | 0        | 1        | 0                 | 1         | 0        | 1         | 6         |
| <b>Total</b>       | <b>9</b>          | <b>6</b> | <b>0</b> | <b>15</b> | <b>7</b>        | <b>0</b> | <b>0</b> | <b>7</b> | <b>0</b>          | <b>10</b> | <b>0</b> | <b>10</b> | <b>32</b> |
| 8:00 AM            | 4                 | 3        | 0        | 7         | 1               | 0        | 0        | 1        | 0                 | 4         | 0        | 4         | 12        |
| 8:15 AM            | 2                 | 0        | 0        | 2         | 0               | 0        | 0        | 0        | 0                 | 4         | 0        | 4         | 6         |
| 8:30 AM            | 1                 | 2        | 0        | 3         | 0               | 0        | 0        | 0        | 1                 | 3         | 0        | 4         | 7         |
| 8:45 AM            | 4                 | 0        | 0        | 4         | 1               | 0        | 0        | 1        | 0                 | 2         | 0        | 2         | 7         |
| <b>Total</b>       | <b>11</b>         | <b>5</b> | <b>0</b> | <b>16</b> | <b>2</b>        | <b>0</b> | <b>0</b> | <b>2</b> | <b>1</b>          | <b>13</b> | <b>0</b> | <b>14</b> | <b>32</b> |
| Grand Total        | 20                | 11       | 0        | 31        | 9               | 0        | 0        | 9        | 1                 | 23        | 0        | 24        | 64        |
| Approach %         | 64.5              | 35.5     | 0.0      |           | 100.0           | 0.0      | 0.0      |          | 4.2               | 95.8      | 0.0      |           |           |
| Total %            | 31.3              | 17.2     | 0.0      | 48.4      | 14.1            | 0.0      | 0.0      | 14.1     | 1.6               | 35.9      | 0.0      | 37.5      |           |
| Exiting Leg Total  |                   |          |          | 32        |                 |          |          | 12       |                   |           |          | 20        | 64        |
| Buses              | 6                 | 3        | 0        | 9         | 1               | 0        | 0        | 1        | 0                 | 7         | 0        | 7         | 17        |
| % Buses            | 30.0              | 27.3     | 0.0      | 29.0      | 11.1            | 0.0      | 0.0      | 11.1     | 0.0               | 30.4      | 0.0      | 29.2      | 26.6      |
| Exiting Leg Total  |                   |          |          | 8         |                 |          |          | 3        |                   |           |          | 6         | 17        |
| Single-Unit Trucks | 11                | 8        | 0        | 19        | 7               | 0        | 0        | 7        | 1                 | 15        | 0        | 16        | 42        |
| % Single-Unit      | 55.0              | 72.7     | 0.0      | 61.3      | 77.8            | 0.0      | 0.0      | 77.8     | 100.0             | 65.2      | 0.0      | 66.7      | 65.6      |
| Exiting Leg Total  |                   |          |          | 22        |                 |          |          | 9        |                   |           |          | 11        | 42        |
| Articulated Trucks | 3                 | 0        | 0        | 3         | 1               | 0        | 0        | 1        | 0                 | 1         | 0        | 1         | 5         |
| % Articulated      | 15.0              | 0.0      | 0.0      | 9.7       | 11.1            | 0.0      | 0.0      | 11.1     | 0.0               | 4.3       | 0.0      | 4.2       | 7.8       |
| Exiting Leg Total  |                   |          |          | 2         |                 |          |          | 0        |                   |           |          | 3         | 5         |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                           | Washington Street |          |          |           | Chestnut Street |          |          |          | Washington Street |           |          |           | Total     |
|---------------------------|-------------------|----------|----------|-----------|-----------------|----------|----------|----------|-------------------|-----------|----------|-----------|-----------|
|                           | from East         |          |          |           | from South      |          |          |          | from West         |           |          |           |           |
|                           | Thru              | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right             | Thru      | U-Turn   | Total     |           |
| 7:15 AM                   | 5                 | 1        | 0        | 6         | 4               | 0        | 0        | 4        | 0                 | 4         | 0        | 4         | 14        |
| 7:30 AM                   | 1                 | 1        | 0        | 2         | 1               | 0        | 0        | 1        | 0                 | 3         | 0        | 3         | 6         |
| 7:45 AM                   | 1                 | 3        | 0        | 4         | 1               | 0        | 0        | 1        | 0                 | 1         | 0        | 1         | 6         |
| 8:00 AM                   | 4                 | 3        | 0        | 7         | 1               | 0        | 0        | 1        | 0                 | 4         | 0        | 4         | 12        |
| <b>Total Volume</b>       | <b>11</b>         | <b>8</b> | <b>0</b> | <b>19</b> | <b>7</b>        | <b>0</b> | <b>0</b> | <b>7</b> | <b>0</b>          | <b>12</b> | <b>0</b> | <b>12</b> | <b>38</b> |
| % Approach Total          | 57.9              | 42.1     | 0.0      |           | 100.0           | 0.0      | 0.0      |          | 0.0               | 100.0     | 0.0      |           |           |
| PHF                       | 0.550             | 0.667    | 0.000    | 0.679     | 0.438           | 0.000    | 0.000    | 0.438    | 0.000             | 0.750     | 0.000    | 0.750     | 0.679     |
| Buses                     | 2                 | 2        | 0        | 4         | 1               | 0        | 0        | 1        | 0                 | 2         | 0        | 2         | 7         |
| Buses %                   | 18.2              | 25.0     | 0.0      | 21.1      | 14.3            | 0.0      | 0.0      | 14.3     | 0.0               | 16.7      | 0.0      | 16.7      | 18.4      |
| Single-Unit Trucks        | 7                 | 6        | 0        | 13        | 5               | 0        | 0        | 5        | 0                 | 9         | 0        | 9         | 27        |
| Single-Unit %             | 63.6              | 75.0     | 0.0      | 68.4      | 71.4            | 0.0      | 0.0      | 71.4     | 0.0               | 75.0      | 0.0      | 75.0      | 71.1      |
| Articulated Trucks        | 2                 | 0        | 0        | 2         | 1               | 0        | 0        | 1        | 0                 | 1         | 0        | 1         | 4         |
| Articulated %             | 18.2              | 0.0      | 0.0      | 10.5      | 14.3            | 0.0      | 0.0      | 14.3     | 0.0               | 8.3       | 0.0      | 8.3       | 10.5      |
| Buses                     | 2                 | 2        | 0        | 4         | 1               | 0        | 0        | 1        | 0                 | 2         | 0        | 2         | 7         |
| Single-Unit Trucks        | 7                 | 6        | 0        | 13        | 5               | 0        | 0        | 5        | 0                 | 9         | 0        | 9         | 27        |
| Articulated Trucks        | 2                 | 0        | 0        | 2         | 1               | 0        | 0        | 1        | 0                 | 1         | 0        | 1         | 4         |
| <b>Total Entering Leg</b> | <b>11</b>         | <b>8</b> | <b>0</b> | <b>19</b> | <b>7</b>        | <b>0</b> | <b>0</b> | <b>7</b> | <b>0</b>          | <b>12</b> | <b>0</b> | <b>12</b> | <b>38</b> |
| Buses                     |                   |          |          | 3         |                 |          |          | 2        |                   |           |          | 2         | 7         |
| Single-Unit Trucks        |                   |          |          | 14        |                 |          |          | 6        |                   |           |          | 7         | 27        |
| Articulated Trucks        |                   |          |          | 2         |                 |          |          | 0        |                   |           |          | 2         | 4         |
| <b>Total Exiting Leg</b>  |                   |          |          | <b>19</b> |                 |          |          | <b>8</b> |                   |           |          | <b>11</b> | <b>38</b> |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Buses**

|                    | Washington Street |          |          |          | Chestnut Street |          |          |          | Washington Street |          |          |          | Total     |
|--------------------|-------------------|----------|----------|----------|-----------------|----------|----------|----------|-------------------|----------|----------|----------|-----------|
|                    | from East         |          |          |          | from South      |          |          |          | from West         |          |          |          |           |
|                    | Thru              | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right             | Thru     | U-Turn   | Total    |           |
| 7:00 AM            | 2                 | 1        | 0        | 3        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 4         |
| 7:15 AM            | 0                 | 0        | 0        | 0        | 1               | 0        | 0        | 1        | 0                 | 1        | 0        | 1        | 2         |
| 7:30 AM            | 1                 | 1        | 0        | 2        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 3         |
| 7:45 AM            | 0                 | 1        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1         |
| <b>Total</b>       | <b>3</b>          | <b>3</b> | <b>0</b> | <b>6</b> | <b>1</b>        | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>          | <b>3</b> | <b>0</b> | <b>3</b> | <b>10</b> |
| 8:00 AM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1         |
| 8:15 AM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 1         |
| 8:30 AM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 2        | 0        | 2        | 3         |
| 8:45 AM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 2         |
| <b>Total</b>       | <b>3</b>          | <b>0</b> | <b>0</b> | <b>3</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>4</b> | <b>0</b> | <b>4</b> | <b>7</b>  |
| <b>Grand Total</b> | <b>6</b>          | <b>3</b> | <b>0</b> | <b>9</b> | <b>1</b>        | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>          | <b>7</b> | <b>0</b> | <b>7</b> | <b>17</b> |
| Approach %         | 66.7              | 33.3     | 0.0      |          | 100.0           | 0.0      | 0.0      |          | 0.0               | 100.0    | 0.0      |          |           |
| Total %            | 35.3              | 17.6     | 0.0      | 52.9     | 5.9             | 0.0      | 0.0      | 5.9      | 0.0               | 41.2     | 0.0      | 41.2     |           |
| Exiting Leg Total  |                   |          |          | 8        |                 |          |          | 3        |                   |          |          | 6        | 17        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Washington Street |       |        |           | Chestnut Street |       |        |          | Washington Street |       |        |          | Total     |
|------------------|-------------------|-------|--------|-----------|-----------------|-------|--------|----------|-------------------|-------|--------|----------|-----------|
|                  | from East         |       |        |           | from South      |       |        |          | from West         |       |        |          |           |
|                  | Thru              | Left  | U-Turn | Total     | Right           | Left  | U-Turn | Total    | Right             | Thru  | U-Turn | Total    |           |
| 7:00 AM          | 2                 | 1     | 0      | 3         | 0               | 0     | 0      | 0        | 0                 | 1     | 0      | 1        | 4         |
| 7:15 AM          | 0                 | 0     | 0      | 0         | 1               | 0     | 0      | 1        | 0                 | 1     | 0      | 1        | 2         |
| 7:30 AM          | 1                 | 1     | 0      | 2         | 0               | 0     | 0      | 0        | 0                 | 1     | 0      | 1        | 3         |
| 7:45 AM          | 0                 | 1     | 0      | 1         | 0               | 0     | 0      | 0        | 0                 | 0     | 0      | 0        | 1         |
| Total Volume     | 3                 | 3     | 0      | 6         | 1               | 0     | 0      | 1        | 0                 | 3     | 0      | 3        | 10        |
| % Approach Total | 50.0              | 50.0  | 0.0    |           | 100.0           | 0.0   | 0.0    |          | 0.0               | 100.0 | 0.0    |          |           |
| PHF              | 0.375             | 0.750 | 0.000  | 0.500     | 0.250           | 0.000 | 0.000  | 0.250    | 0.000             | 0.750 | 0.000  | 0.750    | 0.625     |
| Entering Leg     | 3                 | 3     | 0      | 6         | 1               | 0     | 0      | 1        | 0                 | 3     | 0      | 3        | 10        |
| Exiting Leg      |                   |       |        | 4         |                 |       |        | 3        |                   |       |        | 3        | 10        |
| <b>Total</b>     |                   |       |        | <b>10</b> |                 |       |        | <b>4</b> |                   |       |        | <b>6</b> | <b>20</b> |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Single-Unit Trucks**

|                    | Washington Street |          |          |           | Chestnut Street |          |          |          | Washington Street |           |          |           | Total     |
|--------------------|-------------------|----------|----------|-----------|-----------------|----------|----------|----------|-------------------|-----------|----------|-----------|-----------|
|                    | from East         |          |          |           | from South      |          |          |          | from West         |           |          |           |           |
|                    | Thru              | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right             | Thru      | U-Turn   | Total     |           |
| 7:00 AM            | 0                 | 0        | 0        | 0         | 1               | 0        | 0        | 1        | 0                 | 1         | 0        | 1         | 2         |
| 7:15 AM            | 4                 | 1        | 0        | 5         | 2               | 0        | 0        | 2        | 0                 | 3         | 0        | 3         | 10        |
| 7:30 AM            | 0                 | 0        | 0        | 0         | 1               | 0        | 0        | 1        | 0                 | 1         | 0        | 1         | 2         |
| 7:45 AM            | 0                 | 2        | 0        | 2         | 1               | 0        | 0        | 1        | 0                 | 1         | 0        | 1         | 4         |
| <b>Total</b>       | <b>4</b>          | <b>3</b> | <b>0</b> | <b>7</b>  | <b>5</b>        | <b>0</b> | <b>0</b> | <b>5</b> | <b>0</b>          | <b>6</b>  | <b>0</b> | <b>6</b>  | <b>18</b> |
| 8:00 AM            | 3                 | 3        | 0        | 6         | 1               | 0        | 0        | 1        | 0                 | 4         | 0        | 4         | 11        |
| 8:15 AM            | 2                 | 0        | 0        | 2         | 0               | 0        | 0        | 0        | 0                 | 3         | 0        | 3         | 5         |
| 8:30 AM            | 0                 | 2        | 0        | 2         | 0               | 0        | 0        | 0        | 1                 | 1         | 0        | 2         | 4         |
| 8:45 AM            | 2                 | 0        | 0        | 2         | 1               | 0        | 0        | 1        | 0                 | 1         | 0        | 1         | 4         |
| <b>Total</b>       | <b>7</b>          | <b>5</b> | <b>0</b> | <b>12</b> | <b>2</b>        | <b>0</b> | <b>0</b> | <b>2</b> | <b>1</b>          | <b>9</b>  | <b>0</b> | <b>10</b> | <b>24</b> |
| <b>Grand Total</b> | <b>11</b>         | <b>8</b> | <b>0</b> | <b>19</b> | <b>7</b>        | <b>0</b> | <b>0</b> | <b>7</b> | <b>1</b>          | <b>15</b> | <b>0</b> | <b>16</b> | <b>42</b> |
| Approach %         | 57.9              | 42.1     | 0.0      |           | 100.0           | 0.0      | 0.0      |          | 6.3               | 93.8      | 0.0      |           |           |
| Total %            | 26.2              | 19.0     | 0.0      | 45.2      | 16.7            | 0.0      | 0.0      | 16.7     | 2.4               | 35.7      | 0.0      | 38.1      |           |
| Exiting Leg Total  |                   |          |          | 22        |                 |          |          | 9        |                   |           |          | 11        | 42        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                         | Washington Street |             |            |           | Chestnut Street |            |            |           | Washington Street |              |            |           | Total     |
|-------------------------|-------------------|-------------|------------|-----------|-----------------|------------|------------|-----------|-------------------|--------------|------------|-----------|-----------|
|                         | from East         |             |            |           | from South      |            |            |           | from West         |              |            |           |           |
|                         | Thru              | Left        | U-Turn     | Total     | Right           | Left       | U-Turn     | Total     | Right             | Thru         | U-Turn     | Total     |           |
| 7:15 AM                 | 4                 | 1           | 0          | 5         | 2               | 0          | 0          | 2         | 0                 | 3            | 0          | 3         | 10        |
| 7:30 AM                 | 0                 | 0           | 0          | 0         | 1               | 0          | 0          | 1         | 0                 | 1            | 0          | 1         | 2         |
| 7:45 AM                 | 0                 | 2           | 0          | 2         | 1               | 0          | 0          | 1         | 0                 | 1            | 0          | 1         | 4         |
| 8:00 AM                 | 3                 | 3           | 0          | 6         | 1               | 0          | 0          | 1         | 0                 | 4            | 0          | 4         | 11        |
| <b>Total Volume</b>     | <b>7</b>          | <b>6</b>    | <b>0</b>   | <b>13</b> | <b>5</b>        | <b>0</b>   | <b>0</b>   | <b>5</b>  | <b>0</b>          | <b>9</b>     | <b>0</b>   | <b>9</b>  | <b>27</b> |
| <b>% Approach Total</b> | <b>53.8</b>       | <b>46.2</b> | <b>0.0</b> |           | <b>100.0</b>    | <b>0.0</b> | <b>0.0</b> |           | <b>0.0</b>        | <b>100.0</b> | <b>0.0</b> |           |           |
| PHF                     | 0.438             | 0.500       | 0.000      | 0.542     | 0.625           | 0.000      | 0.000      | 0.625     | 0.000             | 0.563        | 0.000      | 0.563     | 0.614     |
| Entering Leg            | 7                 | 6           | 0          | 13        | 5               | 0          | 0          | 5         | 0                 | 9            | 0          | 9         | 27        |
| Exiting Leg             |                   |             |            | 14        |                 |            |            | 6         |                   |              |            | 7         | 27        |
| <b>Total</b>            |                   |             |            | <b>27</b> |                 |            |            | <b>11</b> |                   |              |            | <b>16</b> | <b>54</b> |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Articulated Trucks**

|                    | Washington Street |          |          |          | Chestnut Street |          |          |          | Washington Street |          |          |          | Total    |
|--------------------|-------------------|----------|----------|----------|-----------------|----------|----------|----------|-------------------|----------|----------|----------|----------|
|                    | from East         |          |          |          | from South      |          |          |          | from West         |          |          |          |          |
|                    | Thru              | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right             | Thru     | U-Turn   | Total    |          |
| 7:00 AM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        |
| 7:15 AM            | 1                 | 0        | 0        | 1        | 1               | 0        | 0        | 1        | 0                 | 0        | 0        | 0        | 2        |
| 7:30 AM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 1        |
| 7:45 AM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1        |
| <b>Total</b>       | <b>2</b>          | <b>0</b> | <b>0</b> | <b>2</b> | <b>1</b>        | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>          | <b>1</b> | <b>0</b> | <b>1</b> | <b>4</b> |
| 8:00 AM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        |
| 8:15 AM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        |
| 8:30 AM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        |
| 8:45 AM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1        |
| <b>Total</b>       | <b>1</b>          | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b> |
| <b>Grand Total</b> | <b>3</b>          | <b>0</b> | <b>0</b> | <b>3</b> | <b>1</b>        | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>          | <b>1</b> | <b>0</b> | <b>1</b> | <b>5</b> |
| Approach %         | 100.0             | 0.0      | 0.0      |          | 100.0           | 0.0      | 0.0      |          | 0.0               | 100.0    | 0.0      |          |          |
| Total %            | 60.0              | 0.0      | 0.0      | 60.0     | 20.0            | 0.0      | 0.0      | 20.0     | 0.0               | 20.0     | 0.0      | 20.0     |          |
| Exiting Leg Total  |                   |          |          | 2        |                 |          |          | 0        |                   |          |          | 3        | 5        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                         | Washington Street |            |            |          | Chestnut Street |            |            |          | Washington Street |              |            |          | Total    |
|-------------------------|-------------------|------------|------------|----------|-----------------|------------|------------|----------|-------------------|--------------|------------|----------|----------|
|                         | from East         |            |            |          | from South      |            |            |          | from West         |              |            |          |          |
|                         | Thru              | Left       | U-Turn     | Total    | Right           | Left       | U-Turn     | Total    | Right             | Thru         | U-Turn     | Total    |          |
| 7:00 AM                 | 0                 | 0          | 0          | 0        | 0               | 0          | 0          | 0        | 0                 | 0            | 0          | 0        | 0        |
| 7:15 AM                 | 1                 | 0          | 0          | 1        | 1               | 0          | 0          | 1        | 0                 | 0            | 0          | 0        | 2        |
| 7:30 AM                 | 0                 | 0          | 0          | 0        | 0               | 0          | 0          | 0        | 0                 | 1            | 0          | 1        | 1        |
| 7:45 AM                 | 1                 | 0          | 0          | 1        | 0               | 0          | 0          | 0        | 0                 | 0            | 0          | 0        | 1        |
| <b>Total Volume</b>     | <b>2</b>          | <b>0</b>   | <b>0</b>   | <b>2</b> | <b>1</b>        | <b>0</b>   | <b>0</b>   | <b>1</b> | <b>0</b>          | <b>1</b>     | <b>0</b>   | <b>1</b> | <b>4</b> |
| <b>% Approach Total</b> | <b>100.0</b>      | <b>0.0</b> | <b>0.0</b> |          | <b>100.0</b>    | <b>0.0</b> | <b>0.0</b> |          | <b>0.0</b>        | <b>100.0</b> | <b>0.0</b> |          |          |
| PHF                     | 0.500             | 0.000      | 0.000      | 0.500    | 0.250           | 0.000      | 0.000      | 0.250    | 0.000             | 0.250        | 0.000      | 0.250    | 0.500    |
| Entering Leg            | 2                 | 0          | 0          | 2        | 1               | 0          | 0          | 1        | 0                 | 1            | 0          | 1        | 4        |
| Exiting Leg             |                   |            |            | 2        |                 |            |            | 0        |                   |              |            | 2        | 4        |
| <b>Total</b>            |                   |            |            | <b>4</b> |                 |            |            | <b>1</b> |                   |              |            | <b>3</b> | <b>8</b> |



PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**



**Bicycles (on Roadway and Crosswalks)**

|                          | Washington Street |      |        |       |       |       | Chestnut Street |      |        |       |       |       | Washington Street |      |        |       |       |       | Total |
|--------------------------|-------------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|-------------------|------|--------|-------|-------|-------|-------|
|                          | from East         |      |        |       |       |       | from South      |      |        |       |       |       | from West         |      |        |       |       |       |       |
|                          | Thru              | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right             | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 7:00 AM                  | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 7:15 AM                  | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 7:30 AM                  | 0                 | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:45 AM                  | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| <b>Total</b>             | 0                 | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 0    | 0      | 0     | 0     | 0     | 1     |
| 8:00 AM                  | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 8:15 AM                  | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 8:30 AM                  | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 8:45 AM                  | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| <b>Total</b>             | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| <b>Grand Total</b>       | 0                 | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 0    | 0      | 0     | 0     | 0     | 1     |
| <b>Approach %</b>        | 0.0               | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0               | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   |       |
| <b>Total %</b>           | 0.0               | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0  | 0.0    | 0.0   | 0.0   | 100.0 | 0.0               | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   |       |
| <b>Exiting Leg Total</b> | 1                 |      |        |       |       |       | 0               |      |        |       |       |       | 0                 |      |        |       |       |       | 1     |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:00 AM                 | Washington Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Washington Street |       |        |       |       |       | Total |
|-------------------------|-------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|-------------------|-------|--------|-------|-------|-------|-------|
|                         | from East         |       |        |       |       |       | from South      |       |        |       |       |       | from West         |       |        |       |       |       |       |
|                         | Thru              | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 7:00 AM                 | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0      | 0     | 0     | 0     | 0     |
| 7:15 AM                 | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0      | 0     | 0     | 0     | 0     |
| 7:30 AM                 | 0                 | 0     | 0      | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 1     | 0                 | 0     | 0      | 0     | 0     | 0     | 1     |
| 7:45 AM                 | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0      | 0     | 0     | 0     | 0     |
| <b>Total Volume</b>     | 0                 | 0     | 0      | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 1     | 0                 | 0     | 0      | 0     | 0     | 0     | 1     |
| <b>% Approach Total</b> | 0.0               | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0               | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   |       |
| <b>PHF</b>              | 0.000             | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.250           | 0.000 | 0.000  | 0.000 | 0.000 | 0.250 | 0.000             | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 |       |
| <b>Entering Leg</b>     | 0                 | 0     | 0      | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 1     | 0                 | 0     | 0      | 0     | 0     | 0     | 1     |
| <b>Exiting Leg</b>      | 1                 |       |        |       |       |       | 0               |       |        |       |       |       | 0                 |       |        |       |       |       | 1     |
| <b>Total</b>            | 1                 |       |        |       |       |       | 1               |       |        |       |       |       | 0                 |       |        |       |       |       | 2     |

PDI File #: 228414 E  
 Location: S: Chestnut Street  
 Location: E: Washington Street W: Washington Street  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Pedestrians**

|                          | Washington Street |      |        |        |         |        | Chestnut Street |      |        |        |        |        | Washington Street |      |        |       |        |        | Total |
|--------------------------|-------------------|------|--------|--------|---------|--------|-----------------|------|--------|--------|--------|--------|-------------------|------|--------|-------|--------|--------|-------|
|                          | from East         |      |        |        |         |        | from South      |      |        |        |        |        | from West         |      |        |       |        |        |       |
|                          | Thru              | Left | U-Turn | CW-SB  | CW-NB   | Total  | Right           | Left | U-Turn | CW-WB  | CW-EB  | Total  | Right             | Thru | U-Turn | CW-NB | CW-SB  | Total  |       |
| 7:00 AM                  | 0                 | 0    | 0      | 0      | 0       | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0                 | 0    | 0      | 0     | 0      | 0      | 0     |
| 7:15 AM                  | 0                 | 0    | 0      | 0      | 0       | 0      | 0               | 0    | 0      | 1      | 1      | 2      | 0                 | 0    | 0      | 0     | 0      | 0      | 2     |
| 7:30 AM                  | 0                 | 0    | 0      | 0      | 1       | 1      | 0               | 0    | 0      | 0      | 0      | 0      | 0                 | 0    | 0      | 0     | 0      | 0      | 1     |
| 7:45 AM                  | 0                 | 0    | 0      | 0      | 0       | 0      | 0               | 0    | 0      | 1      | 0      | 1      | 0                 | 0    | 0      | 0     | 0      | 0      | 1     |
| <b>Total</b>             | 0                 | 0    | 0      | 0      | 1       | 1      | 0               | 0    | 0      | 2      | 1      | 3      | 0                 | 0    | 0      | 0     | 0      | 0      | 4     |
| 8:00 AM                  | 0                 | 0    | 0      | 0      | 0       | 0      | 0               | 0    | 0      | 2      | 1      | 3      | 0                 | 0    | 0      | 0     | 1      | 1      | 4     |
| 8:15 AM                  | 0                 | 0    | 0      | 0      | 1       | 1      | 0               | 0    | 0      | 0      | 2      | 2      | 0                 | 0    | 0      | 0     | 0      | 0      | 3     |
| 8:30 AM                  | 0                 | 0    | 0      | 0      | 0       | 0      | 0               | 0    | 0      | 1      | 3      | 4      | 0                 | 0    | 0      | 0     | 0      | 0      | 4     |
| 8:45 AM                  | 0                 | 0    | 0      | 1      | 0       | 1      | 0               | 0    | 0      | 2      | 0      | 2      | 0                 | 0    | 0      | 0     | 0      | 0      | 3     |
| <b>Total</b>             | 0                 | 0    | 0      | 1      | 1       | 2      | 0               | 0    | 0      | 5      | 6      | 11     | 0                 | 0    | 0      | 0     | 1      | 1      | 14    |
| <b>Grand Total</b>       | 0                 | 0    | 0      | 1      | 2       | 3      | 0               | 0    | 0      | 7      | 7      | 14     | 0                 | 0    | 0      | 0     | 1      | 1      | 18    |
| <b>Approach %</b>        | 0                 | 0    | 0      | 33.333 | 66.667  |        | 0               | 0    | 0      | 50     | 50     |        | 0                 | 0    | 0      | 0     | 100    |        |       |
| <b>Total %</b>           | 0                 | 0    | 0      | 5.5556 | 11.1111 | 16.667 | 0               | 0    | 0      | 38.889 | 38.889 | 77.778 | 0                 | 0    | 0      | 0     | 5.5556 | 5.5556 |       |
| <b>Exiting Leg Total</b> | 3                 |      |        |        |         |        | 14              |      |        |        |        |        | 1                 |      |        |       |        |        | 18    |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 8:00 AM                 | Washington Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Washington Street |       |        |       |       |       | Total |
|-------------------------|-------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|-------------------|-------|--------|-------|-------|-------|-------|
|                         | from East         |       |        |       |       |       | from South      |       |        |       |       |       | from West         |       |        |       |       |       |       |
|                         | Thru              | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 8:00 AM                 | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 2     | 1     | 3     | 0                 | 0     | 0      | 0     | 1     | 1     | 4     |
| 8:15 AM                 | 0                 | 0     | 0      | 0     | 1     | 1     | 0               | 0     | 0      | 0     | 2     | 2     | 0                 | 0     | 0      | 0     | 0     | 0     | 3     |
| 8:30 AM                 | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 1     | 3     | 4     | 0                 | 0     | 0      | 0     | 0     | 0     | 4     |
| 8:45 AM                 | 0                 | 0     | 0      | 1     | 0     | 1     | 0               | 0     | 0      | 2     | 0     | 2     | 0                 | 0     | 0      | 0     | 0     | 0     | 3     |
| <b>Total Volume</b>     | 0                 | 0     | 0      | 1     | 1     | 2     | 0               | 0     | 0      | 5     | 6     | 11    | 0                 | 0     | 0      | 0     | 1     | 1     | 14    |
| <b>% Approach Total</b> | 0.0               | 0.0   | 0.0    | 50.0  | 50.0  |       | 0.0             | 0.0   | 0.0    | 45.5  | 54.5  |       | 0.0               | 0.0   | 0.0    | 0.0   | 100.0 |       |       |
| <b>PHF</b>              | 0.000             | 0.000 | 0.000  | 0.250 | 0.250 | 0.500 | 0.000           | 0.000 | 0.000  | 0.625 | 0.500 | 0.688 | 0.000             | 0.000 | 0.000  | 0.000 | 0.250 | 0.250 | 0.875 |
| <b>Entering Leg</b>     | 0                 | 0     | 0      | 1     | 1     | 2     | 0               | 0     | 0      | 5     | 6     | 11    | 0                 | 0     | 0      | 0     | 1     | 1     | 14    |
| <b>Exiting Leg</b>      | 2                 |       |        |       |       |       | 11              |       |        |       |       |       | 1                 |       |        |       |       |       | 14    |
| <b>Total</b>            | 4                 |       |        |       |       |       | 22              |       |        |       |       |       | 2                 |       |        |       |       |       | 28    |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Washington Street |            |          |            | Chestnut Street |          |          |           | Washington Street |            |          |            | Total      |
|-------------------|-------------------|------------|----------|------------|-----------------|----------|----------|-----------|-------------------|------------|----------|------------|------------|
|                   | from East         |            |          |            | from South      |          |          |           | from West         |            |          |            |            |
|                   | Thru              | Left       | U-Turn   | Total      | Right           | Left     | U-Turn   | Total     | Right             | Thru       | U-Turn   | Total      |            |
| 4:00 PM           | 101               | 32         | 0        | 133        | 18              | 4        | 0        | 22        | 4                 | 74         | 0        | 78         | 233        |
| 4:15 PM           | 82                | 44         | 0        | 126        | 27              | 2        | 0        | 29        | 10                | 83         | 0        | 93         | 248        |
| 4:30 PM           | 68                | 29         | 0        | 97         | 17              | 1        | 0        | 18        | 4                 | 87         | 0        | 91         | 206        |
| 4:45 PM           | 95                | 34         | 0        | 129        | 28              | 1        | 0        | 29        | 6                 | 83         | 0        | 89         | 247        |
| <b>Total</b>      | <b>346</b>        | <b>139</b> | <b>0</b> | <b>485</b> | <b>90</b>       | <b>8</b> | <b>0</b> | <b>98</b> | <b>24</b>         | <b>327</b> | <b>0</b> | <b>351</b> | <b>934</b> |
| 5:00 PM           | 89                | 36         | 0        | 125        | 19              | 1        | 0        | 20        | 9                 | 70         | 0        | 79         | 224        |
| 5:15 PM           | 98                | 39         | 0        | 137        | 15              | 2        | 0        | 17        | 9                 | 79         | 0        | 88         | 242        |
| 5:30 PM           | 90                | 42         | 0        | 132        | 24              | 5        | 0        | 29        | 5                 | 90         | 0        | 95         | 256        |
| 5:45 PM           | 105               | 32         | 0        | 137        | 20              | 1        | 0        | 21        | 7                 | 99         | 0        | 106        | 264        |
| <b>Total</b>      | <b>382</b>        | <b>149</b> | <b>0</b> | <b>531</b> | <b>78</b>       | <b>9</b> | <b>0</b> | <b>87</b> | <b>30</b>         | <b>338</b> | <b>0</b> | <b>368</b> | <b>986</b> |
| Grand Total       | 728               | 288        | 0        | 1016       | 168             | 17       | 0        | 185       | 54                | 665        | 0        | 719        | 1920       |
| Approach %        | 71.7              | 28.3       | 0.0      |            | 90.8            | 9.2      | 0.0      |           | 7.5               | 92.5       | 0.0      |            |            |
| Total %           | 37.9              | 15.0       | 0.0      | 52.9       | 8.8             | 0.9      | 0.0      | 9.6       | 2.8               | 34.6       | 0.0      | 37.4       |            |
| Exiting Leg Total |                   |            |          | 833        |                 |          |          | 342       |                   |            |          | 745        | 1920       |
| Cars              | 716               | 286        | 0        | 1002       | 163             | 17       | 0        | 180       | 52                | 652        | 0        | 704        | 1886       |
| % Cars            | 98.4              | 99.3       | 0.0      | 98.6       | 97.0            | 100.0    | 0.0      | 97.3      | 96.3              | 98.0       | 0.0      | 97.9       | 98.2       |
| Exiting Leg Total |                   |            |          | 815        |                 |          |          | 338       |                   |            |          | 733        | 1886       |
| Heavy Vehicles    | 12                | 2          | 0        | 14         | 5               | 0        | 0        | 5         | 2                 | 13         | 0        | 15         | 34         |
| % Heavy Vehicles  | 1.6               | 0.7        | 0.0      | 1.4        | 3.0             | 0.0      | 0.0      | 2.7       | 3.7               | 2.0        | 0.0      | 2.1        | 1.8        |
| Exiting Leg Total |                   |            |          | 18         |                 |          |          | 4         |                   |            |          | 12         | 34         |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 5:00 PM            | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|--------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                    | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                    | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 5:00 PM            | 89                | 36    | 0      | 125   | 19              | 1     | 0      | 20    | 9                 | 70    | 0      | 79    | 224   |
| 5:15 PM            | 98                | 39    | 0      | 137   | 15              | 2     | 0      | 17    | 9                 | 79    | 0      | 88    | 242   |
| 5:30 PM            | 90                | 42    | 0      | 132   | 24              | 5     | 0      | 29    | 5                 | 90    | 0      | 95    | 256   |
| 5:45 PM            | 105               | 32    | 0      | 137   | 20              | 1     | 0      | 21    | 7                 | 99    | 0      | 106   | 264   |
| Total Volume       | 382               | 149   | 0      | 531   | 78              | 9     | 0      | 87    | 30                | 338   | 0      | 368   | 986   |
| % Approach Total   | 71.9              | 28.1  | 0.0    |       | 89.7            | 10.3  | 0.0    |       | 8.2               | 91.8  | 0.0    |       |       |
| PHF                | 0.910             | 0.887 | 0.000  | 0.969 | 0.813           | 0.450 | 0.000  | 0.750 | 0.833             | 0.854 | 0.000  | 0.868 | 0.934 |
| Cars               | 376               | 147   | 0      | 523   | 75              | 9     | 0      | 84    | 29                | 335   | 0      | 364   | 971   |
| Cars %             | 98.4              | 98.7  | 0.0    | 98.5  | 96.2            | 100.0 | 0.0    | 96.6  | 96.7              | 99.1  | 0.0    | 98.9  | 98.5  |
| Heavy Vehicles     | 6                 | 2     | 0      | 8     | 3               | 0     | 0      | 3     | 1                 | 3     | 0      | 4     | 15    |
| Heavy Vehicles %   | 1.6               | 1.3   | 0.0    | 1.5   | 3.8             | 0.0   | 0.0    | 3.4   | 3.3               | 0.9   | 0.0    | 1.1   | 1.5   |
| Cars Enter Leg     | 376               | 147   | 0      | 523   | 75              | 9     | 0      | 84    | 29                | 335   | 0      | 364   | 971   |
| Heavy Enter Leg    | 6                 | 2     | 0      | 8     | 3               | 0     | 0      | 3     | 1                 | 3     | 0      | 4     | 15    |
| Total Entering Leg | 382               | 149   | 0      | 531   | 78              | 9     | 0      | 87    | 30                | 338   | 0      | 368   | 986   |
| Cars Exiting Leg   |                   |       |        | 410   |                 |       |        | 176   |                   |       |        | 385   | 971   |
| Heavy Exiting Leg  |                   |       |        | 6     |                 |       |        | 3     |                   |       |        | 6     | 15    |
| Total Exiting Leg  |                   |       |        | 416   |                 |       |        | 179   |                   |       |        | 391   | 986   |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars**

|                   | Washington Street |            |          |            | Chestnut Street |          |          |           | Washington Street |            |          |            | Total      |
|-------------------|-------------------|------------|----------|------------|-----------------|----------|----------|-----------|-------------------|------------|----------|------------|------------|
|                   | from East         |            |          |            | from South      |          |          |           | from West         |            |          |            |            |
|                   | Thru              | Left       | U-Turn   | Total      | Right           | Left     | U-Turn   | Total     | Right             | Thru       | U-Turn   | Total      |            |
| 4:00 PM           | 100               | 32         | 0        | 132        | 16              | 4        | 0        | 20        | 3                 | 73         | 0        | 76         | 228        |
| 4:15 PM           | 81                | 44         | 0        | 125        | 27              | 2        | 0        | 29        | 10                | 78         | 0        | 88         | 242        |
| 4:30 PM           | 66                | 29         | 0        | 95         | 17              | 1        | 0        | 18        | 4                 | 84         | 0        | 88         | 201        |
| 4:45 PM           | 93                | 34         | 0        | 127        | 28              | 1        | 0        | 29        | 6                 | 82         | 0        | 88         | 244        |
| <b>Total</b>      | <b>340</b>        | <b>139</b> | <b>0</b> | <b>479</b> | <b>88</b>       | <b>8</b> | <b>0</b> | <b>96</b> | <b>23</b>         | <b>317</b> | <b>0</b> | <b>340</b> | <b>915</b> |
| 5:00 PM           | 86                | 36         | 0        | 122        | 16              | 1        | 0        | 17        | 9                 | 70         | 0        | 79         | 218        |
| 5:15 PM           | 97                | 39         | 0        | 136        | 15              | 2        | 0        | 17        | 9                 | 78         | 0        | 87         | 240        |
| 5:30 PM           | 90                | 41         | 0        | 131        | 24              | 5        | 0        | 29        | 4                 | 88         | 0        | 92         | 252        |
| 5:45 PM           | 103               | 31         | 0        | 134        | 20              | 1        | 0        | 21        | 7                 | 99         | 0        | 106        | 261        |
| <b>Total</b>      | <b>376</b>        | <b>147</b> | <b>0</b> | <b>523</b> | <b>75</b>       | <b>9</b> | <b>0</b> | <b>84</b> | <b>29</b>         | <b>335</b> | <b>0</b> | <b>364</b> | <b>971</b> |
| Grand Total       | 716               | 286        | 0        | 1002       | 163             | 17       | 0        | 180       | 52                | 652        | 0        | 704        | 1886       |
| Approach %        | 71.5              | 28.5       | 0.0      |            | 90.6            | 9.4      | 0.0      |           | 7.4               | 92.6       | 0.0      |            |            |
| Total %           | 38.0              | 15.2       | 0.0      | 53.1       | 8.6             | 0.9      | 0.0      | 9.5       | 2.8               | 34.6       | 0.0      | 37.3       |            |
| Exiting Leg Total |                   |            |          | 815        |                 |          |          | 338       |                   |            |          | 733        | 1886       |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                  | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                  | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 5:00 PM          | 86                | 36    | 0      | 122   | 16              | 1     | 0      | 17    | 9                 | 70    | 0      | 79    | 218   |
| 5:15 PM          | 97                | 39    | 0      | 136   | 15              | 2     | 0      | 17    | 9                 | 78    | 0      | 87    | 240   |
| 5:30 PM          | 90                | 41    | 0      | 131   | 24              | 5     | 0      | 29    | 4                 | 88    | 0      | 92    | 252   |
| 5:45 PM          | 103               | 31    | 0      | 134   | 20              | 1     | 0      | 21    | 7                 | 99    | 0      | 106   | 261   |
| Total Volume     | 376               | 147   | 0      | 523   | 75              | 9     | 0      | 84    | 29                | 335   | 0      | 364   | 971   |
| % Approach Total | 71.9              | 28.1  | 0.0    |       | 89.3            | 10.7  | 0.0    |       | 8.0               | 92.0  | 0.0    |       |       |
| PHF              | 0.913             | 0.896 | 0.000  | 0.961 | 0.781           | 0.450 | 0.000  | 0.724 | 0.806             | 0.846 | 0.000  | 0.858 | 0.930 |
| Entering Leg     | 376               | 147   | 0      | 523   | 75              | 9     | 0      | 84    | 29                | 335   | 0      | 364   | 971   |
| Exiting Leg      |                   |       |        | 410   |                 |       |        | 176   |                   |       |        | 385   | 971   |
| Total            |                   |       |        | 933   |                 |       |        | 260   |                   |       |        | 749   | 1942  |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Washington Street |          |          |          | Chestnut Street |          |          |          | Washington Street |           |          |           | Total     |
|--------------------|-------------------|----------|----------|----------|-----------------|----------|----------|----------|-------------------|-----------|----------|-----------|-----------|
|                    | from East         |          |          |          | from South      |          |          |          | from West         |           |          |           |           |
|                    | Thru              | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right             | Thru      | U-Turn   | Total     |           |
| 4:00 PM            | 1                 | 0        | 0        | 1        | 2               | 0        | 0        | 2        | 1                 | 1         | 0        | 2         | 5         |
| 4:15 PM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 5         | 0        | 5         | 6         |
| 4:30 PM            | 2                 | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 0                 | 3         | 0        | 3         | 5         |
| 4:45 PM            | 2                 | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 0                 | 1         | 0        | 1         | 3         |
| <b>Total</b>       | <b>6</b>          | <b>0</b> | <b>0</b> | <b>6</b> | <b>2</b>        | <b>0</b> | <b>0</b> | <b>2</b> | <b>1</b>          | <b>10</b> | <b>0</b> | <b>11</b> | <b>19</b> |
| 5:00 PM            | 3                 | 0        | 0        | 3        | 3               | 0        | 0        | 3        | 0                 | 0         | 0        | 0         | 6         |
| 5:15 PM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 1         | 0        | 1         | 2         |
| 5:30 PM            | 0                 | 1        | 0        | 1        | 0               | 0        | 0        | 0        | 1                 | 2         | 0        | 3         | 4         |
| 5:45 PM            | 2                 | 1        | 0        | 3        | 0               | 0        | 0        | 0        | 0                 | 0         | 0        | 0         | 3         |
| <b>Total</b>       | <b>6</b>          | <b>2</b> | <b>0</b> | <b>8</b> | <b>3</b>        | <b>0</b> | <b>0</b> | <b>3</b> | <b>1</b>          | <b>3</b>  | <b>0</b> | <b>4</b>  | <b>15</b> |
| Grand Total        | 12                | 2        | 0        | 14       | 5               | 0        | 0        | 5        | 2                 | 13        | 0        | 15        | 34        |
| Approach %         | 85.7              | 14.3     | 0.0      |          | 100.0           | 0.0      | 0.0      |          | 13.3              | 86.7      | 0.0      |           |           |
| Total %            | 35.3              | 5.9      | 0.0      | 41.2     | 14.7            | 0.0      | 0.0      | 14.7     | 5.9               | 38.2      | 0.0      | 44.1      |           |
| Exiting Leg Total  |                   |          |          | 18       |                 |          |          | 4        |                   |           |          | 12        | 34        |
| Buses              | 5                 | 0        | 0        | 5        | 0               | 0        | 0        | 0        | 0                 | 8         | 0        | 8         | 13        |
| % Buses            | 41.7              | 0.0      | 0.0      | 35.7     | 0.0             | 0.0      | 0.0      | 0.0      | 0.0               | 61.5      | 0.0      | 53.3      | 38.2      |
| Exiting Leg Total  |                   |          |          | 8        |                 |          |          | 0        |                   |           |          | 5         | 13        |
| Single-Unit Trucks | 6                 | 2        | 0        | 8        | 5               | 0        | 0        | 5        | 2                 | 1         | 0        | 3         | 16        |
| % Single-Unit      | 50.0              | 100.0    | 0.0      | 57.1     | 100.0           | 0.0      | 0.0      | 100.0    | 100.0             | 7.7       | 0.0      | 20.0      | 47.1      |
| Exiting Leg Total  |                   |          |          | 6        |                 |          |          | 4        |                   |           |          | 6         | 16        |
| Articulated Trucks | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 4         | 0        | 4         | 5         |
| % Articulated      | 8.3               | 0.0      | 0.0      | 7.1      | 0.0             | 0.0      | 0.0      | 0.0      | 0.0               | 30.8      | 0.0      | 26.7      | 14.7      |
| Exiting Leg Total  |                   |          |          | 4        |                 |          |          | 0        |                   |           |          | 1         | 5         |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                    | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|--------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                    | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                    | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 4:15 PM            | 1                 | 0     | 0      | 1     | 0               | 0     | 0      | 0     | 0                 | 5     | 0      | 5     | 6     |
| 4:30 PM            | 2                 | 0     | 0      | 2     | 0               | 0     | 0      | 0     | 0                 | 3     | 0      | 3     | 5     |
| 4:45 PM            | 2                 | 0     | 0      | 2     | 0               | 0     | 0      | 0     | 0                 | 1     | 0      | 1     | 3     |
| 5:00 PM            | 3                 | 0     | 0      | 3     | 3               | 0     | 0      | 3     | 0                 | 0     | 0      | 0     | 6     |
| Total Volume       | 8                 | 0     | 0      | 8     | 3               | 0     | 0      | 3     | 0                 | 9     | 0      | 9     | 20    |
| % Approach Total   | 100.0             | 0.0   | 0.0    |       | 100.0           | 0.0   | 0.0    |       | 0.0               | 100.0 | 0.0    |       |       |
| PHF                | 0.667             | 0.000 | 0.000  | 0.667 | 0.250           | 0.000 | 0.000  | 0.250 | 0.000             | 0.450 | 0.000  | 0.450 | 0.833 |
| Buses              | 3                 | 0     | 0      | 3     | 0               | 0     | 0      | 0     | 0                 | 7     | 0      | 7     | 10    |
| Buses %            | 37.5              | 0.0   | 0.0    | 37.5  | 0.0             | 0.0   | 0.0    | 0.0   | 0.0               | 77.8  | 0.0    | 77.8  | 50.0  |
| Single-Unit Trucks | 4                 | 0     | 0      | 4     | 3               | 0     | 0      | 3     | 0                 | 0     | 0      | 0     | 7     |
| Single-Unit %      | 50.0              | 0.0   | 0.0    | 50.0  | 100.0           | 0.0   | 0.0    | 100.0 | 0.0               | 0.0   | 0.0    | 0.0   | 35.0  |
| Articulated Trucks | 1                 | 0     | 0      | 1     | 0               | 0     | 0      | 0     | 0                 | 2     | 0      | 2     | 3     |
| Articulated %      | 12.5              | 0.0   | 0.0    | 12.5  | 0.0             | 0.0   | 0.0    | 0.0   | 0.0               | 22.2  | 0.0    | 22.2  | 15.0  |
| Buses              | 3                 | 0     | 0      | 3     | 0               | 0     | 0      | 0     | 0                 | 7     | 0      | 7     | 10    |
| Single-Unit Trucks | 4                 | 0     | 0      | 4     | 3               | 0     | 0      | 3     | 0                 | 0     | 0      | 0     | 7     |
| Articulated Trucks | 1                 | 0     | 0      | 1     | 0               | 0     | 0      | 0     | 0                 | 2     | 0      | 2     | 3     |
| Total Entering Leg | 8                 | 0     | 0      | 8     | 3               | 0     | 0      | 3     | 0                 | 9     | 0      | 9     | 20    |
| Buses              |                   |       |        | 7     |                 |       |        | 0     |                   |       |        | 3     | 10    |
| Single-Unit Trucks |                   |       |        | 3     |                 |       |        | 0     |                   |       |        | 4     | 7     |
| Articulated Trucks |                   |       |        | 2     |                 |       |        | 0     |                   |       |        | 1     | 3     |
| Total Exiting Leg  |                   |       |        | 12    |                 |       |        | 0     |                   |       |        | 8     | 20    |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Buses**

|                    | Washington Street |          |          |          | Chestnut Street |          |          |          | Washington Street |          |          |          | Total     |
|--------------------|-------------------|----------|----------|----------|-----------------|----------|----------|----------|-------------------|----------|----------|----------|-----------|
|                    | from East         |          |          |          | from South      |          |          |          | from West         |          |          |          |           |
|                    | Thru              | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right             | Thru     | U-Turn   | Total    |           |
| 4:00 PM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1         |
| 4:15 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 4        | 0        | 4        | 4         |
| 4:30 PM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 2        | 0        | 2        | 3         |
| 4:45 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 1         |
| <b>Total</b>       | <b>2</b>          | <b>0</b> | <b>0</b> | <b>2</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>7</b> | <b>0</b> | <b>7</b> | <b>9</b>  |
| 5:00 PM            | 2                 | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 2         |
| 5:15 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 1         |
| 5:30 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0         |
| 5:45 PM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1         |
| <b>Total</b>       | <b>3</b>          | <b>0</b> | <b>0</b> | <b>3</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>1</b> | <b>0</b> | <b>1</b> | <b>4</b>  |
| <b>Grand Total</b> | <b>5</b>          | <b>0</b> | <b>0</b> | <b>5</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>8</b> | <b>0</b> | <b>8</b> | <b>13</b> |
| Approach %         | 100.0             | 0.0      | 0.0      |          | 0.0             | 0.0      | 0.0      |          | 0.0               | 100.0    | 0.0      |          |           |
| Total %            | 38.5              | 0.0      | 0.0      | 38.5     | 0.0             | 0.0      | 0.0      | 0.0      | 0.0               | 61.5     | 0.0      | 61.5     |           |
| Exiting Leg Total  |                   |          |          | 8        |                 |          |          | 0        |                   |          |          | 5        | 13        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:15 PM             | Washington Street |          |          |           | Chestnut Street |          |          |          | Washington Street |          |          |           | Total     |
|---------------------|-------------------|----------|----------|-----------|-----------------|----------|----------|----------|-------------------|----------|----------|-----------|-----------|
|                     | from East         |          |          |           | from South      |          |          |          | from West         |          |          |           |           |
|                     | Thru              | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right             | Thru     | U-Turn   | Total     |           |
| 4:15 PM             | 0                 | 0        | 0        | 0         | 0               | 0        | 0        | 0        | 0                 | 4        | 0        | 4         | 4         |
| 4:30 PM             | 1                 | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                 | 2        | 0        | 2         | 3         |
| 4:45 PM             | 0                 | 0        | 0        | 0         | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1         | 1         |
| 5:00 PM             | 2                 | 0        | 0        | 2         | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0         | 2         |
| <b>Total Volume</b> | <b>3</b>          | <b>0</b> | <b>0</b> | <b>3</b>  | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>7</b> | <b>0</b> | <b>7</b>  | <b>10</b> |
| % Approach Total    | 100.0             | 0.0      | 0.0      |           | 0.0             | 0.0      | 0.0      |          | 0.0               | 100.0    | 0.0      |           |           |
| PHF                 | 0.375             | 0.000    | 0.000    | 0.375     | 0.000           | 0.000    | 0.000    | 0.000    | 0.000             | 0.438    | 0.000    | 0.438     | 0.625     |
| Entering Leg        | 3                 | 0        | 0        | 3         | 0               | 0        | 0        | 0        | 0                 | 7        | 0        | 7         | 10        |
| Exiting Leg         |                   |          |          | 7         |                 |          |          | 0        |                   |          |          | 3         | 10        |
| <b>Total</b>        |                   |          |          | <b>10</b> |                 |          |          | <b>0</b> |                   |          |          | <b>10</b> | <b>20</b> |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Single-Unit Trucks**

|                   | Washington Street |          |          |          | Chestnut Street |          |          |          | Washington Street |          |          |          | Total     |
|-------------------|-------------------|----------|----------|----------|-----------------|----------|----------|----------|-------------------|----------|----------|----------|-----------|
|                   | from East         |          |          |          | from South      |          |          |          | from West         |          |          |          |           |
|                   | Thru              | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right             | Thru     | U-Turn   | Total    |           |
| 4:00 PM           | 0                 | 0        | 0        | 0        | 2               | 0        | 0        | 2        | 1                 | 0        | 0        | 1        | 3         |
| 4:15 PM           | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1         |
| 4:30 PM           | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1         |
| 4:45 PM           | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1         |
| <b>Total</b>      | <b>3</b>          | <b>0</b> | <b>0</b> | <b>3</b> | <b>2</b>        | <b>0</b> | <b>0</b> | <b>2</b> | <b>1</b>          | <b>0</b> | <b>0</b> | <b>1</b> | <b>6</b>  |
| 5:00 PM           | 1                 | 0        | 0        | 1        | 3               | 0        | 0        | 3        | 0                 | 0        | 0        | 0        | 4         |
| 5:15 PM           | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1         |
| 5:30 PM           | 0                 | 1        | 0        | 1        | 0               | 0        | 0        | 0        | 1                 | 1        | 0        | 2        | 3         |
| 5:45 PM           | 1                 | 1        | 0        | 2        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 2         |
| <b>Total</b>      | <b>3</b>          | <b>2</b> | <b>0</b> | <b>5</b> | <b>3</b>        | <b>0</b> | <b>0</b> | <b>3</b> | <b>1</b>          | <b>1</b> | <b>0</b> | <b>2</b> | <b>10</b> |
| Grand Total       | 6                 | 2        | 0        | 8        | 5               | 0        | 0        | 5        | 2                 | 1        | 0        | 3        | 16        |
| Approach %        | 75.0              | 25.0     | 0.0      |          | 100.0           | 0.0      | 0.0      |          | 66.7              | 33.3     | 0.0      |          |           |
| Total %           | 37.5              | 12.5     | 0.0      | 50.0     | 31.3            | 0.0      | 0.0      | 31.3     | 12.5              | 6.3      | 0.0      | 18.8     |           |
| Exiting Leg Total |                   |          |          | 6        |                 |          |          | 4        |                   |          |          | 6        | 16        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 5:00 PM          | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                  | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                  | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 5:00 PM          | 1                 | 0     | 0      | 1     | 3               | 0     | 0      | 3     | 0                 | 0     | 0      | 0     | 4     |
| 5:15 PM          | 1                 | 0     | 0      | 1     | 0               | 0     | 0      | 0     | 0                 | 0     | 0      | 0     | 1     |
| 5:30 PM          | 0                 | 1     | 0      | 1     | 0               | 0     | 0      | 0     | 1                 | 1     | 0      | 2     | 3     |
| 5:45 PM          | 1                 | 1     | 0      | 2     | 0               | 0     | 0      | 0     | 0                 | 0     | 0      | 0     | 2     |
| Total Volume     | 3                 | 2     | 0      | 5     | 3               | 0     | 0      | 3     | 1                 | 1     | 0      | 2     | 10    |
| % Approach Total | 60.0              | 40.0  | 0.0    |       | 100.0           | 0.0   | 0.0    |       | 50.0              | 50.0  | 0.0    |       |       |
| PHF              | 0.750             | 0.500 | 0.000  | 0.625 | 0.250           | 0.000 | 0.000  | 0.250 | 0.250             | 0.250 | 0.000  | 0.250 | 0.625 |
| Entering Leg     | 3                 | 2     | 0      | 5     | 3               | 0     | 0      | 3     | 1                 | 1     | 0      | 2     | 10    |
| Exiting Leg      |                   |       |        | 4     |                 |       |        | 3     |                   |       |        | 3     | 10    |
| Total            |                   |       |        | 9     |                 |       |        | 6     |                   |       |        | 5     | 20    |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Articulated Trucks**

|                    | Washington Street |          |          |          | Chestnut Street |          |          |          | Washington Street |          |          |          | Total    |          |
|--------------------|-------------------|----------|----------|----------|-----------------|----------|----------|----------|-------------------|----------|----------|----------|----------|----------|
|                    | from East         |          |          |          | from South      |          |          |          | from West         |          |          |          |          |          |
|                    | Thru              | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right             | Thru     | U-Turn   | Total    |          |          |
| 4:00 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 1        |
| 4:15 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 1        |
| 4:30 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 1        |
| 4:45 PM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1        |
| <b>Total</b>       | <b>1</b>          | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>0</b> | <b>3</b> | <b>0</b> | <b>3</b> | <b>4</b> |
| 5:00 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        |
| 5:15 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        |
| 5:30 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 1        |
| 5:45 PM            | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0        |
| <b>Total</b>       | <b>0</b>          | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>0</b> | <b>1</b> | <b>0</b> | <b>1</b> | <b>1</b> |
| <b>Grand Total</b> | <b>1</b>          | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>0</b> | <b>4</b> | <b>0</b> | <b>4</b> | <b>5</b> |
| Approach %         | 100.0             | 0.0      | 0.0      |          | 0.0             | 0.0      | 0.0      |          | 0.0               | 100.0    | 0.0      |          |          |          |
| Total %            | 20.0              | 0.0      | 0.0      | 20.0     | 0.0             | 0.0      | 0.0      | 0.0      | 0.0               | 80.0     | 0.0      | 80.0     |          |          |
| Exiting Leg Total  |                   |          |          | 4        |                 |          |          | 0        |                   |          |          |          | 1        | 5        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM                 | Washington Street |            |            |          | Chestnut Street |            |            |          | Washington Street |              |            |          | Total    |          |
|-------------------------|-------------------|------------|------------|----------|-----------------|------------|------------|----------|-------------------|--------------|------------|----------|----------|----------|
|                         | from East         |            |            |          | from South      |            |            |          | from West         |              |            |          |          |          |
|                         | Thru              | Left       | U-Turn     | Total    | Right           | Left       | U-Turn     | Total    | Right             | Thru         | U-Turn     | Total    |          |          |
| 4:00 PM                 | 0                 | 0          | 0          | 0        | 0               | 0          | 0          | 0        | 0                 | 0            | 1          | 0        | 1        | 1        |
| 4:15 PM                 | 0                 | 0          | 0          | 0        | 0               | 0          | 0          | 0        | 0                 | 0            | 1          | 0        | 1        | 1        |
| 4:30 PM                 | 0                 | 0          | 0          | 0        | 0               | 0          | 0          | 0        | 0                 | 0            | 1          | 0        | 1        | 1        |
| 4:45 PM                 | 1                 | 0          | 0          | 1        | 0               | 0          | 0          | 0        | 0                 | 0            | 0          | 0        | 0        | 1        |
| <b>Total Volume</b>     | <b>1</b>          | <b>0</b>   | <b>0</b>   | <b>1</b> | <b>0</b>        | <b>0</b>   | <b>0</b>   | <b>0</b> | <b>0</b>          | <b>0</b>     | <b>3</b>   | <b>0</b> | <b>3</b> | <b>4</b> |
| <b>% Approach Total</b> | <b>100.0</b>      | <b>0.0</b> | <b>0.0</b> |          | <b>0.0</b>      | <b>0.0</b> | <b>0.0</b> |          | <b>0.0</b>        | <b>100.0</b> | <b>0.0</b> |          |          |          |
| PHF                     | 0.250             | 0.000      | 0.000      | 0.250    | 0.000           | 0.000      | 0.000      | 0.000    | 0.000             | 0.000        | 0.750      | 0.000    | 0.750    | 1.000    |
| Entering Leg            | 1                 | 0          | 0          | 1        | 0               | 0          | 0          | 0        | 0                 | 0            | 3          | 0        | 3        | 4        |
| Exiting Leg             |                   |            |            | 3        |                 |            |            | 0        |                   |              |            |          | 1        | 4        |
| <b>Total</b>            |                   |            |            | <b>4</b> |                 |            |            | <b>0</b> |                   |              |            |          | <b>4</b> | <b>8</b> |



PDI File #: 228414 E  
 Location: S: Chestnut Street  
 Location: E: Washington Street W: Washington Street  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 4:00 PM  
 End Time: 6:00 PM



**Bicycles (on Roadway and Crosswalks)**

|                    | Washington Street |      |        |       |       |       | Chestnut Street |      |        |       |       |       | Washington Street |      |        |       |       |       | Total |
|--------------------|-------------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|-------------------|------|--------|-------|-------|-------|-------|
|                    | from East         |      |        |       |       |       | from South      |      |        |       |       |       | from West         |      |        |       |       |       |       |
|                    | Thru              | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right             | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 4:00 PM            | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 4:15 PM            | 0                 | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 0    | 0      | 0     | 0     | 0     | 1     |
| 4:30 PM            | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 4:45 PM            | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| <b>Total</b>       | 0                 | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 0    | 0      | 0     | 0     | 0     | 1     |
| 5:00 PM            | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 5:15 PM            | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 5:30 PM            | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 5:45 PM            | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| <b>Total</b>       | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| <b>Grand Total</b> | 0                 | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 0    | 0      | 0     | 0     | 0     | 1     |
| Approach %         | 0.0               | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0               | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   |       |
| Total %            | 0.0               | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0  | 0.0    | 0.0   | 0.0   | 100.0 | 0.0               | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   |       |
| Exiting Leg Total  | 1                 |      |        |       |       |       | 0               |      |        |       |       |       | 0                 |      |        |       |       |       | 1     |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM                 | Washington Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Washington Street |       |        |       |       |       | Total |
|-------------------------|-------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|-------------------|-------|--------|-------|-------|-------|-------|
|                         | from East         |       |        |       |       |       | from South      |       |        |       |       |       | from West         |       |        |       |       |       |       |
|                         | Thru              | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 4:00 PM                 | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0      | 0     | 0     | 0     | 0     |
| 4:15 PM                 | 0                 | 0     | 0      | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 1     | 0                 | 0     | 0      | 0     | 0     | 0     | 1     |
| 4:30 PM                 | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0      | 0     | 0     | 0     | 0     |
| 4:45 PM                 | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0      | 0     | 0     | 0     | 0     |
| <b>Total Volume</b>     | 0                 | 0     | 0      | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 1     | 0                 | 0     | 0      | 0     | 0     | 0     | 1     |
| <b>% Approach Total</b> | 0.0               | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0               | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   |       |
| PHF                     | 0.000             | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.250           | 0.000 | 0.000  | 0.000 | 0.000 | 0.250 | 0.000             | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 |       |
| Entering Leg            | 0                 |       |        |       |       |       | 1               |       |        |       |       |       | 0                 |       |        |       |       |       | 1     |
| Exiting Leg             | 1                 |       |        |       |       |       | 0               |       |        |       |       |       | 0                 |       |        |       |       |       | 1     |
| <b>Total</b>            | 1                 |       |        |       |       |       | 1               |       |        |       |       |       | 0                 |       |        |       |       |       | 2     |

PDI File #: **228414 E**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Pedestrians**

|                          | Washington Street |          |          |               |               |               | Chestnut Street |          |          |               |               |               | Washington Street |          |          |               |               |               | Total     |           |
|--------------------------|-------------------|----------|----------|---------------|---------------|---------------|-----------------|----------|----------|---------------|---------------|---------------|-------------------|----------|----------|---------------|---------------|---------------|-----------|-----------|
|                          | from East         |          |          |               |               |               | from South      |          |          |               |               |               | from West         |          |          |               |               |               |           |           |
|                          | Thru              | Left     | U-Turn   | CW-SB         | CW-NB         | Total         | Right           | Left     | U-Turn   | CW-WB         | CW-EB         | Total         | Right             | Thru     | U-Turn   | CW-NB         | CW-SB         | Total         |           |           |
| 4:00 PM                  | 0                 | 0        | 0        | 2             | 4             | 6             | 0               | 0        | 0        | 3             | 3             | 6             | 0                 | 0        | 0        | 0             | 0             | 0             | 12        |           |
| 4:15 PM                  | 0                 | 0        | 0        | 2             | 5             | 7             | 0               | 0        | 0        | 0             | 3             | 3             | 0                 | 0        | 0        | 1             | 0             | 1             | 11        |           |
| 4:30 PM                  | 0                 | 0        | 0        | 1             | 1             | 2             | 0               | 0        | 0        | 1             | 1             | 2             | 0                 | 0        | 0        | 0             | 0             | 0             | 4         |           |
| 4:45 PM                  | 0                 | 0        | 0        | 2             | 5             | 7             | 0               | 0        | 0        | 1             | 2             | 3             | 0                 | 0        | 0        | 0             | 0             | 0             | 10        |           |
| <b>Total</b>             | <b>0</b>          | <b>0</b> | <b>0</b> | <b>7</b>      | <b>15</b>     | <b>22</b>     | <b>0</b>        | <b>0</b> | <b>0</b> | <b>5</b>      | <b>9</b>      | <b>14</b>     | <b>0</b>          | <b>0</b> | <b>0</b> | <b>1</b>      | <b>0</b>      | <b>1</b>      | <b>37</b> |           |
| 5:00 PM                  | 0                 | 0        | 0        | 0             | 1             | 1             | 0               | 0        | 0        | 0             | 1             | 1             | 0                 | 0        | 0        | 0             | 0             | 0             | 2         |           |
| 5:15 PM                  | 0                 | 0        | 0        | 0             | 0             | 0             | 0               | 0        | 0        | 0             | 1             | 1             | 0                 | 0        | 0        | 2             | 0             | 2             | 3         |           |
| 5:30 PM                  | 0                 | 0        | 0        | 0             | 0             | 0             | 0               | 0        | 0        | 0             | 0             | 0             | 0                 | 0        | 0        | 0             | 2             | 2             | 2         |           |
| 5:45 PM                  | 0                 | 0        | 0        | 1             | 3             | 4             | 0               | 0        | 0        | 1             | 2             | 3             | 0                 | 0        | 0        | 0             | 0             | 0             | 7         |           |
| <b>Total</b>             | <b>0</b>          | <b>0</b> | <b>0</b> | <b>1</b>      | <b>4</b>      | <b>5</b>      | <b>0</b>        | <b>0</b> | <b>0</b> | <b>1</b>      | <b>4</b>      | <b>5</b>      | <b>0</b>          | <b>0</b> | <b>0</b> | <b>2</b>      | <b>2</b>      | <b>4</b>      | <b>14</b> |           |
| <b>Grand Total</b>       | <b>0</b>          | <b>0</b> | <b>0</b> | <b>8</b>      | <b>19</b>     | <b>27</b>     | <b>0</b>        | <b>0</b> | <b>0</b> | <b>6</b>      | <b>13</b>     | <b>19</b>     | <b>0</b>          | <b>0</b> | <b>0</b> | <b>3</b>      | <b>2</b>      | <b>5</b>      | <b>51</b> |           |
| <b>Approach %</b>        | <b>0</b>          | <b>0</b> | <b>0</b> | <b>29.63</b>  | <b>70.37</b>  |               | <b>0</b>        | <b>0</b> | <b>0</b> | <b>31.579</b> | <b>68.421</b> |               | <b>0</b>          | <b>0</b> | <b>0</b> | <b>60</b>     | <b>40</b>     |               |           |           |
| <b>Total %</b>           | <b>0</b>          | <b>0</b> | <b>0</b> | <b>15.686</b> | <b>37.255</b> | <b>52.941</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>11.765</b> | <b>25.49</b>  | <b>37.255</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>5.8824</b> | <b>3.9216</b> | <b>9.8039</b> |           |           |
| <b>Exiting Leg Total</b> |                   |          |          |               |               |               |                 |          |          |               |               |               |                   |          |          |               |               |               | <b>5</b>  | <b>51</b> |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM                 | Washington Street |              |              |              |              |              | Chestnut Street |              |              |              |              |              | Washington Street |              |              |              |              |              | Total        |           |
|-------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------|
|                         | from East         |              |              |              |              |              | from South      |              |              |              |              |              | from West         |              |              |              |              |              |              |           |
|                         | Thru              | Left         | U-Turn       | CW-SB        | CW-NB        | Total        | Right           | Left         | U-Turn       | CW-WB        | CW-EB        | Total        | Right             | Thru         | U-Turn       | CW-NB        | CW-SB        | Total        |              |           |
| 4:00 PM                 | 0                 | 0            | 0            | 2            | 4            | 6            | 0               | 0            | 0            | 3            | 3            | 6            | 0                 | 0            | 0            | 0            | 0            | 0            | 12           |           |
| 4:15 PM                 | 0                 | 0            | 0            | 2            | 5            | 7            | 0               | 0            | 0            | 0            | 3            | 3            | 0                 | 0            | 0            | 1            | 0            | 1            | 11           |           |
| 4:30 PM                 | 0                 | 0            | 0            | 1            | 1            | 2            | 0               | 0            | 0            | 1            | 1            | 2            | 0                 | 0            | 0            | 0            | 0            | 0            | 4            |           |
| 4:45 PM                 | 0                 | 0            | 0            | 2            | 5            | 7            | 0               | 0            | 0            | 1            | 2            | 3            | 0                 | 0            | 0            | 0            | 0            | 0            | 10           |           |
| <b>Total Volume</b>     | <b>0</b>          | <b>0</b>     | <b>0</b>     | <b>7</b>     | <b>15</b>    | <b>22</b>    | <b>0</b>        | <b>0</b>     | <b>0</b>     | <b>5</b>     | <b>9</b>     | <b>14</b>    | <b>0</b>          | <b>0</b>     | <b>0</b>     | <b>1</b>     | <b>0</b>     | <b>1</b>     | <b>37</b>    |           |
| <b>% Approach Total</b> | <b>0.0</b>        | <b>0.0</b>   | <b>0.0</b>   | <b>31.8</b>  | <b>68.2</b>  |              | <b>0.0</b>      | <b>0.0</b>   | <b>0.0</b>   | <b>35.7</b>  | <b>64.3</b>  |              | <b>0.0</b>        | <b>0.0</b>   | <b>0.0</b>   | <b>100.0</b> | <b>0.0</b>   |              |              |           |
| <b>PHF</b>              | <b>0.000</b>      | <b>0.000</b> | <b>0.000</b> | <b>0.875</b> | <b>0.750</b> | <b>0.786</b> | <b>0.000</b>    | <b>0.000</b> | <b>0.000</b> | <b>0.417</b> | <b>0.750</b> | <b>0.583</b> | <b>0.000</b>      | <b>0.000</b> | <b>0.000</b> | <b>0.250</b> | <b>0.000</b> | <b>0.250</b> | <b>0.771</b> |           |
| <b>Entering Leg</b>     | <b>0</b>          | <b>0</b>     | <b>0</b>     | <b>7</b>     | <b>15</b>    | <b>22</b>    | <b>0</b>        | <b>0</b>     | <b>0</b>     | <b>5</b>     | <b>9</b>     | <b>14</b>    | <b>0</b>          | <b>0</b>     | <b>0</b>     | <b>1</b>     | <b>0</b>     | <b>1</b>     | <b>37</b>    |           |
| <b>Exiting Leg</b>      |                   |              |              |              |              |              |                 |              |              |              |              |              |                   |              |              |              |              |              | <b>1</b>     | <b>37</b> |
| <b>Total</b>            |                   |              |              |              |              |              |                 |              |              |              |              |              |                   |              |              |              |              |              | <b>2</b>     | <b>74</b> |

PDI File #: **228414 F**  
 Location: **N: Highland Street S: Highland Street NW: Church driveway (north)**  
 Location: **E: Davis Street W: Church driveway (south)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:

**PRECISION  
 DATA  
 INDUSTRIES, LLC**  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Cars and Heavy Vehicles (Combined)**

|                   | Highland Street |          |            |           |          |            | Davis Street |            |          |            |          |            | Highland Street |            |           |          |          |            | Church driveway (south) |          |           |           |          |           | Church driveway (north) |            |           |            |        |       |
|-------------------|-----------------|----------|------------|-----------|----------|------------|--------------|------------|----------|------------|----------|------------|-----------------|------------|-----------|----------|----------|------------|-------------------------|----------|-----------|-----------|----------|-----------|-------------------------|------------|-----------|------------|--------|-------|
|                   | from North      |          |            |           |          |            | from East    |            |          |            |          |            | from South      |            |           |          |          |            | from West               |          |           |           |          |           | from Northwest          |            |           |            |        |       |
|                   | Hard Right      | Right    | Thru       | Left      | U-Turn   | Total      | Right        | Bear Right | Thru     | Left       | U-Turn   | Total      | Right           | Thru       | Bear Left | Left     | U-Turn   | Total      | Right                   | Thru     | Left      | Hard Left | U-Turn   | Total     | Hard Right              | Bear Right | Bear Left | Hard Left  | U-Turn | Total |
| 7:00 AM           | 0               | 0        | 30         | 4         | 0        | 34         | 2            | 0          | 0        | 0          | 0        | 2          | 0               | 10         | 0         | 0        | 0        | 10         | 0                       | 0        | 0         | 0         | 0        | 0         | 0                       | 0          | 0         | 0          | 46     |       |
| 7:15 AM           | 0               | 0        | 47         | 3         | 0        | 50         | 1            | 0          | 0        | 6          | 0        | 7          | 8               | 43         | 0         | 0        | 0        | 51         | 0                       | 0        | 0         | 0         | 0        | 0         | 0                       | 0          | 0         | 108        |        |       |
| 7:30 AM           | 1               | 0        | 52         | 5         | 0        | 58         | 3            | 0          | 0        | 24         | 0        | 27         | 33              | 86         | 0         | 0        | 0        | 119        | 0                       | 0        | 1         | 0         | 0        | 1         | 0                       | 0          | 0         | 205        |        |       |
| 7:45 AM           | 2               | 0        | 64         | 11        | 0        | 77         | 6            | 0          | 0        | 34         | 0        | 40         | 39              | 81         | 0         | 0        | 0        | 120        | 0                       | 0        | 0         | 0         | 0        | 0         | 0                       | 0          | 0         | 237        |        |       |
| <b>Total</b>      | <b>3</b>        | <b>0</b> | <b>193</b> | <b>23</b> | <b>0</b> | <b>219</b> | <b>12</b>    | <b>0</b>   | <b>0</b> | <b>64</b>  | <b>0</b> | <b>76</b>  | <b>80</b>       | <b>220</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>300</b> | <b>0</b>                | <b>0</b> | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>1</b>  | <b>0</b>                | <b>0</b>   | <b>0</b>  | <b>596</b> |        |       |
| 8:00 AM           | 2               | 0        | 60         | 8         | 0        | 70         | 2            | 1          | 0        | 33         | 0        | 36         | 29              | 62         | 0         | 0        | 0        | 91         | 1                       | 0        | 3         | 0         | 0        | 4         | 0                       | 0          | 0         | 201        |        |       |
| 8:15 AM           | 5               | 0        | 67         | 4         | 0        | 76         | 3            | 0          | 0        | 34         | 0        | 37         | 28              | 85         | 1         | 0        | 0        | 114        | 0                       | 1        | 0         | 0         | 0        | 1         | 0                       | 0          | 0         | 228        |        |       |
| 8:30 AM           | 5               | 0        | 65         | 16        | 0        | 86         | 4            | 0          | 0        | 39         | 0        | 43         | 32              | 74         | 1         | 0        | 0        | 107        | 1                       | 1        | 6         | 0         | 0        | 8         | 0                       | 0          | 0         | 244        |        |       |
| 8:45 AM           | 5               | 0        | 57         | 21        | 0        | 83         | 10           | 2          | 0        | 46         | 0        | 58         | 30              | 82         | 0         | 0        | 0        | 112        | 1                       | 1        | 7         | 0         | 0        | 9         | 0                       | 0          | 0         | 262        |        |       |
| <b>Total</b>      | <b>17</b>       | <b>0</b> | <b>249</b> | <b>49</b> | <b>0</b> | <b>315</b> | <b>19</b>    | <b>3</b>   | <b>0</b> | <b>152</b> | <b>0</b> | <b>174</b> | <b>119</b>      | <b>303</b> | <b>2</b>  | <b>0</b> | <b>0</b> | <b>424</b> | <b>3</b>                | <b>3</b> | <b>16</b> | <b>0</b>  | <b>0</b> | <b>22</b> | <b>0</b>                | <b>0</b>   | <b>0</b>  | <b>935</b> |        |       |
| Grand Total       | 20              | 0        | 442        | 72        | 0        | 534        | 31           | 3          | 0        | 216        | 0        | 250        | 199             | 523        | 2         | 0        | 0        | 724        | 3                       | 3        | 17        | 0         | 0        | 23        | 0                       | 0          | 0         | 1531       |        |       |
| Approach %        | 3.7             | 0.0      | 82.8       | 13.5      | 0.0      |            | 12.4         | 1.2        | 0.0      | 86.4       | 0.0      |            | 27.5            | 72.2       | 0.3       | 0.0      | 0.0      |            | 13.0                    | 13.0     | 73.9      | 0.0       | 0.0      |           | 0.0                     | 0.0        | 0.0       | 0.0        |        |       |
| Total %           | 1.3             | 0.0      | 28.9       | 4.7       | 0.0      | 34.9       | 2.0          | 0.2        | 0.0      | 14.1       | 0.0      | 16.3       | 13.0            | 34.2       | 0.1       | 0.0      | 0.0      | 47.3       | 0.2                     | 0.2      | 1.1       | 0.0       | 0.0      | 1.5       | 0.0                     | 0.0        | 0.0       | 0.0        |        |       |
| Exiting Leg Total |                 |          |            |           |          | 571        |              |            |          |            |          | 274        |                 |            |           |          | 661      |            |                         |          |           |           |          | 0         |                         |            | 25        | 1531       |        |       |
| Cars              | 20              | 0        | 433        | 72        | 0        | 525        | 31           | 3          | 0        | 207        | 0        | 241        | 196             | 513        | 2         | 0        | 0        | 711        | 3                       | 3        | 17        | 0         | 0        | 23        | 0                       | 0          | 0         | 1500       |        |       |
| % Cars            | 100.0           | 0.0      | 98.0       | 100.0     | 0.0      | 98.3       | 100.0        | 100.0      | 0.0      | 95.8       | 0.0      | 96.4       | 98.5            | 98.1       | 100.0     | 0.0      | 0.0      | 98.2       | 100.0                   | 100.0    | 100.0     | 0.0       | 0.0      | 100.0     | 0.0                     | 0.0        | 0.0       | 98.0       |        |       |
| Exiting Leg Total |                 |          |            |           |          | 561        |              |            |          |            |          | 271        |                 |            |           |          | 643      |            |                         |          |           |           |          | 0         |                         |            | 25        | 1500       |        |       |
| Heavy Vehicles    | 0               | 0        | 9          | 0         | 0        | 9          | 0            | 0          | 0        | 9          | 0        | 9          | 3               | 10         | 0         | 0        | 0        | 13         | 0                       | 0        | 0         | 0         | 0        | 0         | 0                       | 0          | 0         | 31         |        |       |
| % Heavy Vehicles  | 0.0             | 0.0      | 2.0        | 0.0       | 0.0      | 1.7        | 0.0          | 0.0        | 0.0      | 4.2        | 0.0      | 3.6        | 1.5             | 1.9        | 0.0       | 0.0      | 0.0      | 1.8        | 0.0                     | 0.0      | 0.0       | 0.0       | 0.0      | 0.0       | 0.0                     | 0.0        | 0.0       | 2.0        |        |       |
| Exiting Leg Total |                 |          |            |           |          | 10         |              |            |          |            |          | 3          |                 |            |           |          | 18       |            |                         |          |           |           |          | 0         |                         |            | 0         | 31         |        |       |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 8:00 AM            | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |
|--------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|
|                    | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |
|                    | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total |
| 8:00 AM            | 2               | 0     | 60    | 8     | 0      | 70    | 2            | 1          | 0     | 33    | 0      | 36    | 29              | 62    | 0         | 0     | 0      | 91    | 1                       | 0     | 3     | 0         | 0      | 4     | 0                       | 0          | 0         | 0         | 201    |       |
| 8:15 AM            | 5               | 0     | 67    | 4     | 0      | 76    | 3            | 0          | 0     | 34    | 0      | 37    | 28              | 85    | 1         | 0     | 0      | 114   | 0                       | 1     | 0     | 0         | 0      | 1     | 0                       | 0          | 0         | 0         | 228    |       |
| 8:30 AM            | 5               | 0     | 65    | 16    | 0      | 86    | 4            | 0          | 0     | 39    | 0      | 43    | 32              | 74    | 1         | 0     | 0      | 107   | 1                       | 1     | 6     | 0         | 0      | 8     | 0                       | 0          | 0         | 0         | 244    |       |
| 8:45 AM            | 5               | 0     | 57    | 21    | 0      | 83    | 10           | 2          | 0     | 46    | 0      | 58    | 30              | 82    | 0         | 0     | 0      | 112   | 1                       | 1     | 7     | 0         | 0      | 9     | 0                       | 0          | 0         | 0         | 262    |       |
| Total Volume       | 17              | 0     | 249   | 49    | 0      | 315   | 19           | 3          | 0     | 152   | 0      | 174   | 119             | 303   | 2         | 0     | 0      | 424   | 3                       | 3     | 16    | 0         | 0      | 22    | 0                       | 0          | 0         | 0         | 935    |       |
| % Approach Total   | 5.4             | 0.0   | 79.0  | 15.6  | 0.0    |       | 10.9         | 1.7        | 0.0   | 87.4  | 0.0    |       | 28.1            | 71.5  | 0.5       | 0.0   | 0.0    |       | 13.6                    | 13.6  | 72.7  | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       |        |       |
| PHF                | 0.850           | 0.000 | 0.929 | 0.583 | 0.000  | 0.916 | 0.475        | 0.375      | 0.000 | 0.826 | 0.000  | 0.750 | 0.930           | 0.891 | 0.500     | 0.000 | 0.000  | 0.930 | 0.750                   | 0.750 | 0.571 | 0.000     | 0.000  | 0.611 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.892  |       |
| Cars               | 17              | 0     | 245   | 49    | 0      | 311   | 19           | 3          | 0     | 146   | 0      | 168   | 117             | 298   | 2         | 0     | 0      | 417   | 3                       | 3     | 16    | 0         | 0      | 22    | 0                       | 0          | 0         | 0         | 918    |       |
| Cars %             | 100.0           | 0.0   | 98.4  | 100.0 | 0.0    | 98.7  | 100.0        | 100.0      | 0.0   | 96.1  | 0.0    | 96.6  | 98.3            | 98.3  | 100.0     | 0.0   | 0.0    | 98.3  | 100.0                   | 100.0 | 100.0 | 0.0       | 0.0    | 100.0 | 0.0                     | 0.0        | 0.0       | 0.0       | 98.2   |       |
| Heavy Vehicles     | 0               | 0     | 4     | 0     | 0      | 4     | 0            | 0          | 0     | 6     | 0      | 6     | 2               | 5     | 0         | 0     | 7      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 17        |        |       |
| Heavy Vehicles %   | 0.0             | 0.0   | 1.6   | 0.0   | 0.0    | 1.3   | 0.0          | 0.0        | 0.0   | 3.9   | 0.0    | 3.4   | 1.7             | 1.7   | 0.0       | 0.0   | 1.7    | 0.0   | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 1.8       |        |       |
| Cars Enter Leg     | 17              | 0     | 245   | 49    | 0      | 311   | 19           | 3          | 0     | 146   | 0      | 168   | 117             | 298   | 2         | 0     | 0      | 417   | 3                       | 3     | 16    | 0         | 0      | 22    | 0                       | 0          | 0         | 0         | 918    |       |
| Heavy Enter Leg    | 0               | 0     | 4     | 0     | 0      | 4     | 0            | 0          | 0     | 6     | 0      | 6     | 2               | 5     | 0         | 0     | 7      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 17        |        |       |
| Total Entering Leg | 17              | 0     | 249   | 49    | 0      | 315   | 19           | 3          | 0     | 152   | 0      | 174   | 119             | 303   | 2         | 0     | 0      | 424   | 3                       | 3     | 16    | 0         | 0      | 22    | 0                       | 0          | 0         | 0         | 935    |       |
| Cars Exiting Leg   |                 |       |       |       |        | 333   |              |            |       |       |        | 169   |                 |       |           |       | 394    |       |                         |       |       |           |        | 0     |                         |            |           | 918       |        |       |
| Heavy Exiting Leg  |                 |       |       |       |        | 5     |              |            |       |       |        | 2     |                 |       |           |       | 10     |       |                         |       |       |           |        | 0     |                         |            |           | 17        |        |       |
| Total Exiting Leg  |                 |       |       |       |        | 338   |              |            |       |       |        | 171   |                 |       |           |       | 404    |       |                         |       |       |           |        | 0     |                         |            | 22        | 935       |        |       |

PDI File #: **228414 F**  
 Location: **N: Highland Street S: Highland Street NW: Church driveway (north)**  
 Location: **E: Davis Street W: Church driveway (south)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:

**PRECISION  
 D A T A  
 INDUSTRIES, LLC**  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Cars**

|                   | Highland Street |          |            |           |          |            | Davis Street |            |          |            |          |            | Highland Street |            |           |          |          |            | Church driveway (south) |          |           |           |          |           | Church driveway (north) |            |           |           |          |          |          |          |          |          |          |          |            |
|-------------------|-----------------|----------|------------|-----------|----------|------------|--------------|------------|----------|------------|----------|------------|-----------------|------------|-----------|----------|----------|------------|-------------------------|----------|-----------|-----------|----------|-----------|-------------------------|------------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|
|                   | from North      |          |            |           |          |            | from East    |            |          |            |          |            | from South      |            |           |          |          |            | from West               |          |           |           |          |           | from Northwest          |            |           |           |          |          |          |          |          |          |          |          |            |
|                   | Hard Right      | Right    | Thru       | Left      | U-Turn   | Total      | Right        | Bear Right | Thru     | Left       | U-Turn   | Total      | Right           | Thru       | Bear Left | Left     | U-Turn   | Total      | Right                   | Thru     | Left      | Hard Left | U-Turn   | Total     | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn   | Total    | Total    |          |          |          |          |          |            |
| 7:00 AM           | 0               | 0        | 29         | 4         | 0        | 33         | 2            | 0          | 0        | 0          | 0        | 2          | 0               | 10         | 0         | 0        | 0        | 10         | 0                       | 0        | 0         | 0         | 0        | 0         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 45         |
| 7:15 AM           | 0               | 0        | 45         | 3         | 0        | 48         | 1            | 0          | 0        | 6          | 0        | 7          | 7               | 43         | 0         | 0        | 0        | 50         | 0                       | 0        | 0         | 0         | 0        | 0         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 105        |
| 7:30 AM           | 1               | 0        | 51         | 5         | 0        | 57         | 3            | 0          | 0        | 23         | 0        | 26         | 33              | 83         | 0         | 0        | 0        | 116        | 0                       | 0        | 1         | 0         | 0        | 1         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 200        |
| 7:45 AM           | 2               | 0        | 63         | 11        | 0        | 76         | 6            | 0          | 0        | 32         | 0        | 38         | 39              | 79         | 0         | 0        | 0        | 118        | 0                       | 0        | 0         | 0         | 0        | 0         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 232        |
| <b>Total</b>      | <b>3</b>        | <b>0</b> | <b>188</b> | <b>23</b> | <b>0</b> | <b>214</b> | <b>12</b>    | <b>0</b>   | <b>0</b> | <b>61</b>  | <b>0</b> | <b>73</b>  | <b>79</b>       | <b>215</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>294</b> | <b>0</b>                | <b>0</b> | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>1</b>  | <b>0</b>                | <b>0</b>   | <b>0</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>582</b> |
| 8:00 AM           | 2               | 0        | 58         | 8         | 0        | 68         | 2            | 1          | 0        | 30         | 0        | 33         | 28              | 62         | 0         | 0        | 0        | 90         | 1                       | 0        | 3         | 0         | 0        | 4         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 195        |
| 8:15 AM           | 5               | 0        | 67         | 4         | 0        | 76         | 3            | 0          | 0        | 33         | 0        | 36         | 28              | 83         | 1         | 0        | 0        | 112        | 0                       | 1        | 0         | 0         | 0        | 1         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 225        |
| 8:30 AM           | 5               | 0        | 64         | 16        | 0        | 85         | 4            | 0          | 0        | 38         | 0        | 42         | 32              | 71         | 1         | 0        | 0        | 104        | 1                       | 1        | 6         | 0         | 0        | 8         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 239        |
| 8:45 AM           | 5               | 0        | 56         | 21        | 0        | 82         | 10           | 2          | 0        | 45         | 0        | 57         | 29              | 82         | 0         | 0        | 0        | 111        | 1                       | 1        | 7         | 0         | 0        | 9         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 259        |
| <b>Total</b>      | <b>17</b>       | <b>0</b> | <b>245</b> | <b>49</b> | <b>0</b> | <b>311</b> | <b>19</b>    | <b>3</b>   | <b>0</b> | <b>146</b> | <b>0</b> | <b>168</b> | <b>117</b>      | <b>298</b> | <b>2</b>  | <b>0</b> | <b>0</b> | <b>417</b> | <b>3</b>                | <b>3</b> | <b>16</b> | <b>0</b>  | <b>0</b> | <b>22</b> | <b>0</b>                | <b>0</b>   | <b>0</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>918</b> |
| Grand Total       | 20              | 0        | 433        | 72        | 0        | 525        | 31           | 3          | 0        | 207        | 0        | 241        | 196             | 513        | 2         | 0        | 0        | 711        | 3                       | 3        | 17        | 0         | 0        | 23        | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 1500       |
| Approach %        | 3.8             | 0.0      | 82.5       | 13.7      | 0.0      |            | 12.9         | 1.2        | 0.0      | 85.9       | 0.0      |            | 27.6            | 72.2       | 0.3       | 0.0      | 0.0      |            | 13.0                    | 13.0     | 73.9      | 0.0       | 0.0      |           | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0      | 0.0      |          |          |          |          |          |          |            |
| Total %           | 1.3             | 0.0      | 28.9       | 4.8       | 0.0      | 35.0       | 2.1          | 0.2        | 0.0      | 13.8       | 0.0      | 16.1       | 13.1            | 34.2       | 0.1       | 0.0      | 0.0      | 47.4       | 0.2                     | 0.2      | 1.1       | 0.0       | 0.0      | 1.5       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0      | 0.0      |          |          |          |          |          |          |            |
| Exiting Leg Total | 561             |          |            |           |          |            | 271          |            |          |            |          |            | 643             |            |           |          |          |            | 0                       |          |           |           |          |           | 25                      |            |           |           |          |          | 1500     |          |          |          |          |          |            |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 8:00 AM          | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |             |   |   |   |   |   |     |
|------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------------|---|---|---|---|---|-----|
|                  | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |             |   |   |   |   |   |     |
|                  | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total       |   |   |   |   |   |     |
| 8:00 AM          | 2               | 0     | 58    | 8     | 0      | 68    | 2            | 1          | 0     | 30    | 0      | 33    | 28              | 62    | 0         | 0     | 0      | 90    | 1                       | 0     | 3     | 0         | 0      | 4     | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 0 | 0 | 0 | 0 | 0 | 195 |
| 8:15 AM          | 5               | 0     | 67    | 4     | 0      | 76    | 3            | 0          | 0     | 33    | 0      | 36    | 28              | 83    | 1         | 0     | 0      | 112   | 0                       | 1     | 0     | 0         | 0      | 1     | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 0 | 0 | 0 | 0 | 0 | 225 |
| 8:30 AM          | 5               | 0     | 64    | 16    | 0      | 85    | 4            | 0          | 0     | 38    | 0      | 42    | 32              | 71    | 1         | 0     | 0      | 104   | 1                       | 1     | 6     | 0         | 0      | 8     | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 0 | 0 | 0 | 0 | 0 | 239 |
| 8:45 AM          | 5               | 0     | 56    | 21    | 0      | 82    | 10           | 2          | 0     | 45    | 0      | 57    | 29              | 82    | 0         | 0     | 0      | 111   | 1                       | 1     | 7     | 0         | 0      | 9     | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 0 | 0 | 0 | 0 | 0 | 259 |
| Total Volume     | 17              | 0     | 245   | 49    | 0      | 311   | 19           | 3          | 0     | 146   | 0      | 168   | 117             | 298   | 2         | 0     | 0      | 417   | 3                       | 3     | 16    | 0         | 0      | 22    | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 0 | 0 | 0 | 0 | 0 | 918 |
| % Approach Total | 5.5             | 0.0   | 78.8  | 15.8  | 0.0    |       | 11.3         | 1.8        | 0.0   | 86.9  | 0.0    |       | 28.1            | 71.5  | 0.5       | 0.0   | 0.0    |       | 13.6                    | 13.6  | 72.7  | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   |             |   |   |   |   |   |     |
| PHF              | 0.850           | 0.000 | 0.914 | 0.583 | 0.000  | 0.915 | 0.475        | 0.375      | 0.000 | 0.811 | 0.000  | 0.737 | 0.914           | 0.898 | 0.500     | 0.000 | 0.000  | 0.931 | 0.750                   | 0.750 | 0.571 | 0.000     | 0.000  | 0.611 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000  | 0.000 | 0.886       |   |   |   |   |   |     |
| Entering Leg     | 17              | 0     | 245   | 49    | 0      | 311   | 19           | 3          | 0     | 146   | 0      | 168   | 117             | 298   | 2         | 0     | 0      | 417   | 3                       | 3     | 16    | 0         | 0      | 22    | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 0 | 0 | 0 | 0 | 0 | 918 |
| Exiting Leg      | 333             |       |       |       |        |       | 169          |            |       |       |        |       | 394             |       |           |       |        |       | 0                       |       |       |           |        |       | 22                      |            |           |           |        |       | 918         |   |   |   |   |   |     |
| <b>Total</b>     | <b>644</b>      |       |       |       |        |       | <b>337</b>   |            |       |       |        |       | <b>811</b>      |       |           |       |        |       | <b>22</b>               |       |       |           |        |       | <b>22</b>               |            |           |           |        |       | <b>1836</b> |   |   |   |   |   |     |

PDI File #: 228414 F  
 Location: N: Highland Street S: Highland Street NW: Church driveway (north)  
 Location: E: Davis Street W: Church driveway (south)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:

PRECISION  
 DATA  
 INDUSTRIES, LLC  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

|                    | Highland Street |       |       |      |        |       | Davis Street |            |      |       |        |       | Highland Street |      |           |      |        |       | Church driveway (south) |      |      |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|--------------------|-----------------|-------|-------|------|--------|-------|--------------|------------|------|-------|--------|-------|-----------------|------|-----------|------|--------|-------|-------------------------|------|------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                    | from North      |       |       |      |        |       | from East    |            |      |       |        |       | from South      |      |           |      |        |       | from West               |      |      |           |        |       | from Northwest          |            |           |           |        |       |       |
|                    | Hard Right      | Right | Thru  | Left | U-Turn | Total | Right        | Bear Right | Thru | Left  | U-Turn | Total | Right           | Thru | Bear Left | Left | U-Turn | Total | Right                   | Thru | Left | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 7:00 AM            | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 7:15 AM            | 0               | 0     | 2     | 0    | 0      | 2     | 0            | 0          | 0    | 0     | 0      | 0     | 1               | 0    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| 7:30 AM            | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 1     | 0      | 1     | 0               | 3    | 0         | 0    | 0      | 3     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| 7:45 AM            | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 2     | 0      | 2     | 0               | 2    | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| Total              | 0               | 0     | 5     | 0    | 0      | 5     | 0            | 0          | 0    | 3     | 0      | 3     | 1               | 5    | 0         | 0    | 0      | 6     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 14    |
| 8:00 AM            | 0               | 0     | 2     | 0    | 0      | 2     | 0            | 0          | 0    | 3     | 0      | 3     | 1               | 0    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 6     |
| 8:15 AM            | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 1     | 0      | 1     | 0               | 2    | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| 8:30 AM            | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 1     | 0      | 1     | 0               | 3    | 0         | 0    | 0      | 3     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| 8:45 AM            | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 1     | 0      | 1     | 1               | 0    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| Total              | 0               | 0     | 4     | 0    | 0      | 4     | 0            | 0          | 0    | 6     | 0      | 6     | 2               | 5    | 0         | 0    | 0      | 7     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 17    |
| Grand Total        | 0               | 0     | 9     | 0    | 0      | 9     | 0            | 0          | 0    | 9     | 0      | 9     | 3               | 10   | 0         | 0    | 0      | 13    | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 31    |
| Approach %         | 0.0             | 0.0   | 100.0 | 0.0  | 0.0    |       | 0.0          | 0.0        | 0.0  | 100.0 | 0.0    |       | 23.1            | 76.9 | 0.0       | 0.0  | 0.0    |       | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |
| Total %            | 0.0             | 0.0   | 29.0  | 0.0  | 0.0    | 29.0  | 0.0          | 0.0        | 0.0  | 29.0  | 0.0    | 29.0  | 9.7             | 32.3 | 0.0       | 0.0  | 0.0    | 41.9  | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   |       |
| Exiting Leg Total  | 10              |       |       |      |        |       | 3            |            |      |       |        |       | 18              |      |           |      |        |       | 0                       |      |      |           |        |       | 0                       |            |           |           |        |       |       |
| Buses              | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 2     | 0      | 2     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 2     |
| % Buses            | 0.0             | 0.0   | 0.0   | 0.0  | 0.0    | 0.0   | 0.0          | 0.0        | 0.0  | 22.2  | 0.0    | 22.2  | 0.0             | 0.0  | 0.0       | 0.0  | 0.0    | 0.0   | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   | 6.5   |
| Exiting Leg Total  | 0               |       |       |      |        |       | 0            |            |      |       |        |       | 0               |      |           |      |        |       | 0                       |      |      |           |        |       | 0                       |            |           |           |        |       |       |
| Single-Unit Trucks | 0               | 0     | 7     | 0    | 0      | 7     | 0            | 0          | 0    | 7     | 0      | 7     | 3               | 8    | 0         | 0    | 0      | 11    | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 25    |
| % Single-Unit      | 0.0             | 0.0   | 77.8  | 0.0  | 0.0    | 77.8  | 0.0          | 0.0        | 0.0  | 77.8  | 0.0    | 77.8  | 100.0           | 80.0 | 0.0       | 0.0  | 0.0    | 84.6  | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   | 80.6  |
| Exiting Leg Total  | 8               |       |       |      |        |       | 3            |            |      |       |        |       | 14              |      |           |      |        |       | 0                       |      |      |           |        |       | 0                       |            |           |           |        |       |       |
| Articulated Trucks | 0               | 0     | 2     | 0    | 0      | 2     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 2    | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 4     |
| % Articulated      | 0.0             | 0.0   | 22.2  | 0.0  | 0.0    | 22.2  | 0.0          | 0.0        | 0.0  | 0.0   | 0.0    | 0.0   | 0.0             | 20.0 | 0.0       | 0.0  | 0.0    | 15.4  | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   | 12.9  |
| Exiting Leg Total  | 2               |       |       |      |        |       | 0            |            |      |       |        |       | 2               |      |           |      |        |       | 0                       |      |      |           |        |       | 0                       |            |           |           |        |       |       |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:15 AM            | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|--------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                    | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |       |
|                    | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 7:15 AM            | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 0     | 0      | 0     | 1               | 0     | 0         | 0     | 0      | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| 7:30 AM            | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 1     | 0      | 1     | 0               | 3     | 0         | 0     | 0      | 3     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| 7:45 AM            | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 2     | 0      | 2     | 0               | 2     | 0         | 0     | 0      | 2     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| 8:00 AM            | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 3     | 0      | 3     | 1               | 0     | 0         | 0     | 0      | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 6     |
| Total Volume       | 0               | 0     | 6     | 0     | 0      | 6     | 0            | 0          | 0     | 6     | 0      | 6     | 2               | 5     | 0         | 0     | 0      | 7     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 19    |
| % Approach Total   | 0.0             | 0.0   | 100.0 | 0.0   | 0.0    |       | 0.0          | 0.0        | 0.0   | 100.0 | 0.0    |       | 28.6            | 71.4  | 0.0       | 0.0   | 0.0    |       | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |
| PHF                | 0.000           | 0.000 | 0.750 | 0.000 | 0.000  | 0.750 | 0.000        | 0.000      | 0.000 | 0.500 | 0.000  | 0.500 | 0.500           | 0.417 | 0.000     | 0.000 | 0.000  | 0.583 | 0.000                   | 0.000 | 0.000 | 0.000     | 0.000  | 0.000 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000  | 0.000 | 0.792 |
| Buses              | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 2     | 0      | 2     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 2     |
| Buses %            | 0.0             | 0.0   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0          | 0.0        | 0.0   | 33.3  | 0.0    | 33.3  | 0.0             | 0.0   | 0.0       | 0.0   | 0.0    | 0.0   | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   | 10.5  |
| Single-Unit Trucks | 0               | 0     | 4     | 0     | 0      | 4     | 0            | 0          | 0     | 4     | 0      | 4     | 2               | 3     | 0         | 0     | 0      | 5     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 13    |
| Single-Unit %      | 0.0             | 0.0   | 66.7  | 0.0   | 0.0    | 66.7  | 0.0          | 0.0        | 0.0   | 66.7  | 0.0    | 66.7  | 100.0           | 60.0  | 0.0       | 0.0   | 0.0    | 71.4  | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   | 68.4  |
| Articulated Trucks | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 2     | 0         | 0     | 0      | 2     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 4     |
| Articulated %      | 0.0             | 0.0   | 33.3  | 0.0   | 0.0    | 33.3  | 0.0          | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 0.0             | 40.0  | 0.0       | 0.0   | 0.0    | 28.6  | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   | 21.1  |
| Buses              | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 2     | 0      | 2     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 2     |
| Single-Unit Trucks | 0               | 0     | 4     | 0     | 0      | 4     | 0            | 0          | 0     | 4     | 0      | 4     | 2               | 3     | 0         | 0     | 0      | 5     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 13    |
| Articulated Trucks | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 2     | 0         | 0     | 0      | 2     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 4     |
| Total Entering Leg | 0               | 0     | 6     | 0     | 0      | 6     | 0            | 0          | 0     | 6     | 0      | 6     | 2               | 5     | 0         | 0     | 0      | 7     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 19    |
| Buses              | 0               |       |       |       |        |       | 0            |            |       |       |        |       | 0               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       |            |           |           |        |       |       |
| Single-Unit Trucks | 3               |       |       |       |        |       | 2            |            |       |       |        |       | 8               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       |            |           |           |        |       |       |
| Articulated Trucks | 2               |       |       |       |        |       | 0            |            |       |       |        |       | 2               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       |            |           |           |        |       |       |
| Total Exiting Leg  | 5               |       |       |       |        |       | 2            |            |       |       |        |       | 12              |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       |            |           |           |        |       |       |

PDI File #: **228414 F**  
 Location: **N: Highland Street S: Highland Street NW: Church driveway (north)**  
 Location: **E: Davis Street W: Church driveway (south)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:

**PRECISION**  
**D A T A**  
**INDUSTRIES, LLC**  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Buses**

|                   | Highland Street |       |      |      |        |       | Davis Street |            |      |       |        |       | Highland Street |      |           |      |        |       | Church driveway (south) |      |      |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|-------------------|-----------------|-------|------|------|--------|-------|--------------|------------|------|-------|--------|-------|-----------------|------|-----------|------|--------|-------|-------------------------|------|------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                   | from North      |       |      |      |        |       | from East    |            |      |       |        |       | from South      |      |           |      |        |       | from West               |      |      |           |        |       | from Northwest          |            |           |           |        |       |       |
|                   | Hard Right      | Right | Thru | Left | U-Turn | Total | Right        | Bear Right | Thru | Left  | U-Turn | Total | Right           | Thru | Bear Left | Left | U-Turn | Total | Right                   | Thru | Left | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 7:00 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 7:15 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 7:30 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 1     | 0      | 1     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| 7:45 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 1     | 0      | 1     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| <b>Total</b>      | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 2     | 0      | 2     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 2     |
| 8:00 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 8:15 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 8:30 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 8:45 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| <b>Total</b>      | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| Grand Total       | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 2     | 0      | 2     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 2     |
| Approach %        | 0.0             | 0.0   | 0.0  | 0.0  | 0.0    | 0.0   | 0.0          | 0.0        | 0.0  | 100.0 | 0.0    | 0.0   | 0.0             | 0.0  | 0.0       | 0.0  | 0.0    | 0.0   | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |
| Total %           | 0.0             | 0.0   | 0.0  | 0.0  | 0.0    | 0.0   | 0.0          | 0.0        | 0.0  | 100.0 | 0.0    | 100.0 | 0.0             | 0.0  | 0.0       | 0.0  | 0.0    | 0.0   | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   |       |
| Exiting Leg Total | 0               |       |      |      |        |       | 0            |            |      |       |        |       | 2               |      |           |      |        |       | 0                       |      |      |           |        |       | 2                       |            |           |           |        |       |       |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                  | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |       |
|                  | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 7:00 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 7:15 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 7:30 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 1     | 0      | 1     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| 7:45 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 1     | 0      | 1     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| Total Volume     | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 2     | 0      | 2     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 2     |
| % Approach Total | 0.0             | 0.0   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0          | 0.0        | 0.0   | 100.0 | 0.0    | 0.0   | 0.0             | 0.0   | 0.0       | 0.0   | 0.0    | 0.0   | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |
| PHF              | 0.000           | 0.000 | 0.000 | 0.000 | 0.000  | 0.000 | 0.000        | 0.000      | 0.000 | 0.500 | 0.000  | 0.500 | 0.000           | 0.000 | 0.000     | 0.000 | 0.000  | 0.000 | 0.000                   | 0.000 | 0.000 | 0.000     | 0.000  | 0.000 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000  | 0.500 |       |
| Entering Leg     | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 2     | 0      | 2     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 2     |
| Exiting Leg      | 0               |       |       |       |        |       | 0            |            |       |       |        |       | 2               |       |           |       |        |       | 0                       |       |       |           |        |       | 2                       |            |           |           |        |       |       |
| <b>Total</b>     | 0               |       |       |       |        |       | 2            |            |       |       |        |       | 2               |       |           |       |        |       | 0                       |       |       |           |        |       | 4                       |            |           |           |        |       |       |

PDI File #: **228414 F**  
 Location: **N: Highland Street S: Highland Street NW: Church driveway (north)**  
 Location: **E: Davis Street W: Church driveway (south)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:

**PRECISION  
 D A T A  
 INDUSTRIES, LLC**  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Single-Unit Trucks**

|                   | Highland Street |       |       |      |        |       | Davis Street |            |      |       |        |       | Highland Street |      |           |      |        |       | Church driveway (south) |      |      |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|-------------------|-----------------|-------|-------|------|--------|-------|--------------|------------|------|-------|--------|-------|-----------------|------|-----------|------|--------|-------|-------------------------|------|------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                   | from North      |       |       |      |        |       | from East    |            |      |       |        |       | from South      |      |           |      |        |       | from West               |      |      |           |        |       | from Northwest          |            |           |           |        |       |       |
|                   | Hard Right      | Right | Thru  | Left | U-Turn | Total | Right        | Bear Right | Thru | Left  | U-Turn | Total | Right           | Thru | Bear Left | Left | U-Turn | Total | Right                   | Thru | Left | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 7:00 AM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 7:15 AM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 0     | 0      | 0     | 1               | 0    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 2     |
| 7:30 AM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 2    | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| 7:45 AM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 1     | 0      | 1     | 0               | 1    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| <b>Total</b>      | 0               | 0     | 4     | 0    | 0      | 4     | 0            | 0          | 0    | 1     | 0      | 1     | 1               | 3    | 0         | 0    | 0      | 4     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 9     |
| 8:00 AM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 3     | 0      | 3     | 1               | 0    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| 8:15 AM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 1     | 0      | 1     | 0               | 2    | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| 8:30 AM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 1     | 0      | 1     | 0               | 3    | 0         | 0    | 0      | 3     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| 8:45 AM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 1     | 0      | 1     | 1               | 0    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| <b>Total</b>      | 0               | 0     | 3     | 0    | 0      | 3     | 0            | 0          | 0    | 6     | 0      | 6     | 2               | 5    | 0         | 0    | 0      | 7     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 16    |
| Grand Total       | 0               | 0     | 7     | 0    | 0      | 7     | 0            | 0          | 0    | 7     | 0      | 7     | 3               | 8    | 0         | 0    | 0      | 11    | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 25    |
| Approach %        | 0.0             | 0.0   | 100.0 | 0.0  | 0.0    |       | 0.0          | 0.0        | 0.0  | 100.0 | 0.0    |       | 27.3            | 72.7 | 0.0       | 0.0  | 0.0    |       | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |
| Total %           | 0.0             | 0.0   | 28.0  | 0.0  | 0.0    | 28.0  | 0.0          | 0.0        | 0.0  | 28.0  | 0.0    | 28.0  | 12.0            | 32.0 | 0.0       | 0.0  | 0.0    | 44.0  | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   |       |
| Exiting Leg Total | 8               |       |       |      |        |       | 3            |            |      |       |        |       | 14              |      |           |      |        |       | 0                       |      |      |           |        |       | 0                       | 25         |           |           |        |       |       |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:45 AM          | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                  | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |       |
|                  | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 7:45 AM          | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 1     | 0      | 1     | 0               | 1     | 0         | 0     | 0      | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| 8:00 AM          | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 3     | 0      | 3     | 1               | 0     | 0         | 0     | 0      | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| 8:15 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 1     | 0      | 1     | 0               | 2     | 0         | 0     | 0      | 2     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| 8:30 AM          | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 1     | 0      | 1     | 0               | 3     | 0         | 0     | 0      | 3     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| Total Volume     | 0               | 0     | 3     | 0     | 0      | 3     | 0            | 0          | 0     | 6     | 0      | 6     | 1               | 6     | 0         | 0     | 0      | 7     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 16    |
| % Approach Total | 0.0             | 0.0   | 100.0 | 0.0   | 0.0    |       | 0.0          | 0.0        | 0.0   | 100.0 | 0.0    |       | 14.3            | 85.7  | 0.0       | 0.0   | 0.0    |       | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |
| PHF              | 0.000           | 0.000 | 0.750 | 0.000 | 0.000  | 0.750 | 0.000        | 0.000      | 0.000 | 0.500 | 0.000  | 0.500 | 0.250           | 0.500 | 0.000     | 0.000 | 0.000  | 0.583 | 0.000                   | 0.000 | 0.000 | 0.000     | 0.000  | 0.000 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000  | 0.800 |       |
| Entering Leg     | 0               | 0     | 3     | 0     | 0      | 3     | 0            | 0          | 0     | 6     | 0      | 6     | 1               | 6     | 0         | 0     | 0      | 7     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 16    |
| Exiting Leg      | 6               |       |       |       |        |       | 1            |            |       |       |        |       | 9               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       | 16         |           |           |        |       |       |
| <b>Total</b>     | 9               |       |       |       |        |       | 7            |            |       |       |        |       | 16              |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       | 32         |           |           |        |       |       |

PDI File #: 228414 F  
 Location: N: Highland Street S: Highland Street NW: Church driveway (north)  
 Location: E: Davis Street W: Church driveway (south)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:

PRECISION  
 D A T A  
 INDUSTRIES, LLC  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Articulated Trucks**

|                   | Highland Street |       |       |      |        |       | Davis Street |            |      |      |        |       | Highland Street |       |           |      |        |       | Church driveway (south) |      |      |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|-------------------|-----------------|-------|-------|------|--------|-------|--------------|------------|------|------|--------|-------|-----------------|-------|-----------|------|--------|-------|-------------------------|------|------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                   | from North      |       |       |      |        |       | from East    |            |      |      |        |       | from South      |       |           |      |        |       | from West               |      |      |           |        |       | from Northwest          |            |           |           |        |       |       |
|                   | Hard Right      | Right | Thru  | Left | U-Turn | Total | Right        | Bear Right | Thru | Left | U-Turn | Total | Right           | Thru  | Bear Left | Left | U-Turn | Total | Right                   | Thru | Left | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 7:00 AM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 7:15 AM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| 7:30 AM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 1     | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| 7:45 AM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 1         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| Total             | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 2     | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| 8:00 AM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| 8:15 AM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 8:30 AM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 8:45 AM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| Total             | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| Grand Total       | 0               | 0     | 2     | 0    | 0      | 2     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 2     | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 4     |
| Approach %        | 0.0             | 0.0   | 100.0 | 0.0  | 0.0    |       | 0.0          | 0.0        | 0.0  | 0.0  | 0.0    |       | 0.0             | 100.0 | 0.0       | 0.0  | 0.0    |       | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |
| Total %           | 0.0             | 0.0   | 50.0  | 0.0  | 0.0    | 50.0  | 0.0          | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 0.0             | 50.0  | 0.0       | 0.0  | 0.0    | 50.0  | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   |       |
| Exiting Leg Total | 2               |       |       |      |        |       | 0            |            |      |      |        |       | 2               |       |           |      |        |       | 0                       |      |      |           |        |       | 0                       |            |           |           |        |       | 4     |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:15 AM          | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                  | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |       |
|                  | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 7:15 AM          | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| 7:30 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 1     | 0         | 0     | 0      | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| 7:45 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 1     | 0         | 0     | 0      | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| 8:00 AM          | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 1     |
| Total Volume     | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 2     | 0         | 0     | 0      | 2     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 4     |
| % Approach Total | 0.0             | 0.0   | 100.0 | 0.0   | 0.0    |       | 0.0          | 0.0        | 0.0   | 0.0   | 0.0    |       | 0.0             | 100.0 | 0.0       | 0.0   | 0.0    |       | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |
| PHF              | 0.000           | 0.000 | 0.500 | 0.000 | 0.000  | 0.500 | 0.000        | 0.000      | 0.000 | 0.000 | 0.000  | 0.000 | 0.000           | 0.500 | 0.000     | 0.000 | 0.000  | 0.500 | 0.000                   | 0.000 | 0.000 | 0.000     | 0.000  | 0.000 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000  | 0.000 | 1.000 |
| Entering Leg     | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 2     | 0         | 0     | 0      | 2     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 4     |
| Exiting Leg      | 2               |       |       |       |        |       | 0            |            |       |       |        |       | 2               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       |            |           |           |        |       | 4     |
| Total            | 4               |       |       |       |        |       | 0            |            |       |       |        |       | 4               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       |            |           |           |        |       | 8     |



PDI File #: 228414 F  
 Location: N: Highland Street S: Highland Street NW: Church driveway (north)  
 Location: E: Davis Street W: Church driveway (south)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:

PRECISION  
 D A T A  
 INDUSTRIES, LLC  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Bicycles (on Roadway and Crosswalks)**

|                   | Highland Street |       |      |      |        |       |       |       | Davis Street |            |      |      |        |       |       |       | Highland Street |      |           |      |        |       |       |       | Church driveway (south) |      |      |           |        |       |       |       | Church driveway (north) |            |           |           |        |       |        |       | Total |     |     |     |     |     |     |     |   |
|-------------------|-----------------|-------|------|------|--------|-------|-------|-------|--------------|------------|------|------|--------|-------|-------|-------|-----------------|------|-----------|------|--------|-------|-------|-------|-------------------------|------|------|-----------|--------|-------|-------|-------|-------------------------|------------|-----------|-----------|--------|-------|--------|-------|-------|-----|-----|-----|-----|-----|-----|-----|---|
|                   | from North      |       |      |      |        |       |       |       | from East    |            |      |      |        |       |       |       | from South      |      |           |      |        |       |       |       | from West               |      |      |           |        |       |       |       | from Northwest          |            |           |           |        |       |        |       |       |     |     |     |     |     |     |     |   |
|                   | Hard Right      | Right | Thru | Left | U-Turn | CW-EB | CW-WB | Total | Right        | Bear Right | Thru | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Thru | Bear Left | Left | U-Turn | CW-WB | CW-EB | Total | Right                   | Thru | Left | Hard Left | U-Turn | CW-NB | CW-SB | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | CW-NB | CW-SWB | Total |       |     |     |     |     |     |     |     |   |
| 7:00 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0     | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0 |
| 7:15 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 1    | 0         | 0    | 0      | 0     | 0     | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1 |
| 7:30 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0     | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0 |
| 7:45 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0     | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0 |
| Total             | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 1    | 0         | 0    | 0      | 0     | 0     | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1 |
| 8:00 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0     | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0 |
| 8:15 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0     | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0 |
| 8:30 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0     | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0 |
| 8:45 AM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0     | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0 |
| Total             | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0     | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0 |
| Grand Total       | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0               | 1    | 0         | 0    | 0      | 0     | 0     | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1 |
| Approach %        | 0.0             | 0.0   | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0          | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0  | 0.0       | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   | 0.0    | 0.0   | 0.0   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |   |
| Total %           | 0.0             | 0.0   | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0          | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0  | 0.0       | 0.0  | 0.0    | 0.0   | 100.0 | 0.0   | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   | 0.0    | 0.0   | 0.0   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |   |
| Exiting Leg Total | 1               |       |      |      |        |       |       |       | 0            |            |      |      |        |       |       |       | 0               |      |           |      |        |       |       |       | 0                       |      |      |           |        |       |       |       | 0                       |            |           |           |        |       |        |       | 1     |     |     |     |     |     |     |     |   |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Highland Street |       |       |       |        |       |       |       | Davis Street |            |       |       |        |       |       |       | Highland Street |       |           |       |        |       |       |       | Church driveway (south) |       |       |           |        |       |       |       | Church driveway (north) |            |           |           |        |       |        |       | Total |       |       |       |       |       |       |       |   |
|------------------|-----------------|-------|-------|-------|--------|-------|-------|-------|--------------|------------|-------|-------|--------|-------|-------|-------|-----------------|-------|-----------|-------|--------|-------|-------|-------|-------------------------|-------|-------|-----------|--------|-------|-------|-------|-------------------------|------------|-----------|-----------|--------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|
|                  | from North      |       |       |       |        |       |       |       | from East    |            |       |       |        |       |       |       | from South      |       |           |       |        |       |       |       | from West               |       |       |           |        |       |       |       | from Northwest          |            |           |           |        |       |        |       |       |       |       |       |       |       |       |       |   |
|                  | Hard Right      | Right | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total | Right        | Bear Right | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Thru  | Bear Left | Left  | U-Turn | CW-WB | CW-EB | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | CW-NB | CW-SB | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | CW-NB | CW-SWB | Total |       |       |       |       |       |       |       |       |   |
| 7:00 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0     | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0 |
| 7:15 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0               | 1     | 0         | 0     | 0      | 0     | 0     | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1 |
| 7:30 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0     | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0 |
| 7:45 AM          | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0     | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0 |
| Total Volume     | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0               | 1     | 0         | 0     | 0      | 0     | 0     | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1 |
| % Approach Total | 0.0             | 0.0   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0          | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0   | 0.0       | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |   |
| PHF              | 0.000           | 0.000 | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000        | 0.000      | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.250           | 0.000 | 0.000     | 0.000 | 0.000  | 0.000 | 0.250 | 0.000 | 0.000                   | 0.000 | 0.000 | 0.000     | 0.000  | 0.000 | 0.000 | 0.000 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000  | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.250 |   |
| Entering Leg     | 0               |       |       |       |        |       |       |       | 0            |            |       |       |        |       |       |       | 1               |       |           |       |        |       |       |       | 0                       |       |       |           |        |       |       |       | 0                       |            |           |           |        |       |        |       | 1     |       |       |       |       |       |       |       |   |
| Exiting Leg      | 1               |       |       |       |        |       |       |       | 0            |            |       |       |        |       |       |       | 0               |       |           |       |        |       |       |       | 0                       |       |       |           |        |       |       |       | 0                       |            |           |           |        |       |        |       | 0     |       |       |       |       |       |       |       |   |
| Total            | 1               |       |       |       |        |       |       |       | 0            |            |       |       |        |       |       |       | 1               |       |           |       |        |       |       |       | 0                       |       |       |           |        |       |       |       | 0                       |            |           |           |        |       |        |       | 2     |       |       |       |       |       |       |       |   |



PDI File #: 228414 F  
 Location: N: Highland Street S: Highland Street NW: Church driveway (north)  
 Location: E: Davis Street W: Church driveway (south)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:

PRECISION  
 D A T A  
 INDUSTRIES, LLC  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Cars and Heavy Vehicles (Combined)**

|                   | Highland Street |          |            |           |          |            | Davis Street |            |          |            |          |            | Highland Street |            |           |          |          |            | Church driveway (south) |          |          |           |          |           | Church driveway (north) |            |           |           |          |            |
|-------------------|-----------------|----------|------------|-----------|----------|------------|--------------|------------|----------|------------|----------|------------|-----------------|------------|-----------|----------|----------|------------|-------------------------|----------|----------|-----------|----------|-----------|-------------------------|------------|-----------|-----------|----------|------------|
|                   | from North      |          |            |           |          |            | from East    |            |          |            |          |            | from South      |            |           |          |          |            | from West               |          |          |           |          |           | from Northwest          |            |           |           |          |            |
|                   | Hard Right      | Right    | Thru       | Left      | U-Turn   | Total      | Right        | Bear Right | Thru     | Left       | U-Turn   | Total      | Right           | Thru       | Bear Left | Left     | U-Turn   | Total      | Right                   | Thru     | Left     | Hard Left | U-Turn   | Total     | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn   | Total      |
| 4:00 PM           | 0               | 0        | 55         | 9         | 0        | 64         | 7            | 0          | 0        | 29         | 0        | 36         | 12              | 86         | 0         | 0        | 0        | 98         | 1                       | 0        | 0        | 0         | 0        | 1         | 0                       | 0          | 0         | 0         | 0        | 199        |
| 4:15 PM           | 0               | 0        | 54         | 6         | 0        | 60         | 7            | 0          | 0        | 42         | 0        | 49         | 17              | 87         | 0         | 0        | 0        | 104        | 0                       | 0        | 0        | 0         | 0        | 0         | 0                       | 0          | 0         | 0         | 0        | 213        |
| 4:30 PM           | 1               | 0        | 49         | 4         | 0        | 54         | 12           | 0          | 0        | 24         | 0        | 36         | 13              | 79         | 1         | 0        | 0        | 93         | 0                       | 0        | 2        | 0         | 0        | 2         | 0                       | 0          | 0         | 0         | 0        | 185        |
| 4:45 PM           | 3               | 1        | 42         | 3         | 0        | 49         | 9            | 1          | 0        | 34         | 0        | 44         | 17              | 79         | 0         | 0        | 0        | 96         | 0                       | 1        | 2        | 0         | 0        | 3         | 0                       | 0          | 0         | 0         | 0        | 192        |
| <b>Total</b>      | <b>4</b>        | <b>1</b> | <b>200</b> | <b>22</b> | <b>0</b> | <b>227</b> | <b>35</b>    | <b>1</b>   | <b>0</b> | <b>129</b> | <b>0</b> | <b>165</b> | <b>59</b>       | <b>331</b> | <b>1</b>  | <b>0</b> | <b>0</b> | <b>391</b> | <b>1</b>                | <b>1</b> | <b>4</b> | <b>0</b>  | <b>0</b> | <b>6</b>  | <b>0</b>                | <b>0</b>   | <b>0</b>  | <b>0</b>  | <b>0</b> | <b>789</b> |
| 5:00 PM           | 5               | 0        | 44         | 7         | 0        | 56         | 9            | 0          | 0        | 32         | 0        | 41         | 9               | 51         | 1         | 0        | 0        | 61         | 1                       | 0        | 5        | 0         | 0        | 6         | 0                       | 0          | 0         | 0         | 0        | 164        |
| 5:15 PM           | 2               | 0        | 47         | 3         | 0        | 52         | 18           | 1          | 0        | 34         | 0        | 53         | 5               | 56         | 0         | 0        | 0        | 61         | 1                       | 0        | 2        | 0         | 0        | 3         | 0                       | 0          | 0         | 0         | 0        | 169        |
| 5:30 PM           | 0               | 0        | 48         | 8         | 0        | 56         | 10           | 1          | 1        | 36         | 0        | 48         | 12              | 60         | 0         | 0        | 0        | 72         | 1                       | 1        | 1        | 0         | 0        | 3         | 0                       | 1          | 0         | 0         | 1        | 180        |
| 5:45 PM           | 0               | 0        | 46         | 7         | 0        | 53         | 9            | 1          | 0        | 27         | 0        | 37         | 7               | 47         | 0         | 0        | 0        | 54         | 1                       | 0        | 0        | 0         | 0        | 1         | 0                       | 0          | 0         | 0         | 0        | 145        |
| <b>Total</b>      | <b>7</b>        | <b>0</b> | <b>185</b> | <b>25</b> | <b>0</b> | <b>217</b> | <b>46</b>    | <b>3</b>   | <b>1</b> | <b>129</b> | <b>0</b> | <b>179</b> | <b>33</b>       | <b>214</b> | <b>1</b>  | <b>0</b> | <b>0</b> | <b>248</b> | <b>4</b>                | <b>1</b> | <b>8</b> | <b>0</b>  | <b>0</b> | <b>13</b> | <b>0</b>                | <b>1</b>   | <b>0</b>  | <b>0</b>  | <b>1</b> | <b>658</b> |
| Grand Total       | 11              | 1        | 385        | 47        | 0        | 444        | 81           | 4          | 1        | 258        | 0        | 344        | 92              | 545        | 2         | 0        | 0        | 639        | 5                       | 2        | 12       | 0         | 0        | 19        | 0                       | 1          | 0         | 0         | 1        | 1447       |
| Approach %        | 2.5             | 0.2      | 86.7       | 10.6      | 0.0      |            | 23.5         | 1.2        | 0.3      | 75.0       | 0.0      |            | 14.4            | 85.3       | 0.3       | 0.0      | 0.0      |            | 26.3                    | 10.5     | 63.2     | 0.0       | 0.0      |           | 0.0                     | 100.0      | 0.0       | 0.0       | 0.0      |            |
| Total %           | 0.8             | 0.1      | 26.6       | 3.2       | 0.0      | 30.7       | 5.6          | 0.3        | 0.1      | 17.8       | 0.0      | 23.8       | 6.4             | 37.7       | 0.1       | 0.0      | 0.0      | 44.2       | 0.3                     | 0.1      | 0.8      | 0.0       | 0.0      | 1.3       | 0.0                     | 0.1        | 0.0       | 0.0       | 0.0      | 0.1        |
| Exiting Leg Total |                 |          |            |           |          | 638        |              |            |          |            |          | 141        |                 |            |           |          | 649      |            |                         |          |          |           | 2        |           |                         |            |           |           | 17       | 1447       |
| Cars              | 11              | 1        | 379        | 46        | 0        | 437        | 80           | 4          | 1        | 252        | 0        | 337        | 90              | 536        | 2         | 0        | 0        | 628        | 5                       | 2        | 12       | 0         | 0        | 19        | 0                       | 1          | 0         | 0         | 1        | 1422       |
| % Cars            | 100.0           | 100.0    | 98.4       | 97.9      | 0.0      | 98.4       | 98.8         | 100.0      | 100.0    | 97.7       | 0.0      | 98.0       | 97.8            | 98.3       | 100.0     | 0.0      | 0.0      | 98.3       | 100.0                   | 100.0    | 100.0    | 0.0       | 0.0      | 100.0     | 0.0                     | 100.0      | 0.0       | 0.0       | 0.0      | 98.3       |
| Exiting Leg Total |                 |          |            |           |          | 628        |              |            |          |            |          | 138        |                 |            |           |          | 637      |            |                         |          |          |           | 2        |           |                         |            |           |           | 17       | 1422       |
| Heavy Vehicles    | 0               | 0        | 6          | 1         | 0        | 7          | 1            | 0          | 0        | 6          | 0        | 7          | 2               | 9          | 0         | 0        | 0        | 11         | 0                       | 0        | 0        | 0         | 0        | 0         | 0                       | 0          | 0         | 0         | 0        | 25         |
| % Heavy Vehicles  | 0.0             | 0.0      | 1.6        | 2.1       | 0.0      | 1.6        | 1.2          | 0.0        | 0.0      | 2.3        | 0.0      | 2.0        | 2.2             | 1.7        | 0.0       | 0.0      | 0.0      | 1.7        | 0.0                     | 0.0      | 0.0      | 0.0       | 0.0      | 0.0       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0      | 1.7        |
| Exiting Leg Total |                 |          |            |           |          | 10         |              |            |          |            |          | 3          |                 |            |           |          | 12       |            |                         |          |          |           | 0        |           |                         |            |           |           | 0        | 25         |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM             | Highland Street |          |            |           |          |            | Davis Street |            |          |            |          |            | Highland Street |            |           |          |          |            | Church driveway (south) |          |          |           |          |          | Church driveway (north) |            |           |           |          |            |
|---------------------|-----------------|----------|------------|-----------|----------|------------|--------------|------------|----------|------------|----------|------------|-----------------|------------|-----------|----------|----------|------------|-------------------------|----------|----------|-----------|----------|----------|-------------------------|------------|-----------|-----------|----------|------------|
|                     | from North      |          |            |           |          |            | from East    |            |          |            |          |            | from South      |            |           |          |          |            | from West               |          |          |           |          |          | from Northwest          |            |           |           |          |            |
|                     | Hard Right      | Right    | Thru       | Left      | U-Turn   | Total      | Right        | Bear Right | Thru     | Left       | U-Turn   | Total      | Right           | Thru       | Bear Left | Left     | U-Turn   | Total      | Right                   | Thru     | Left     | Hard Left | U-Turn   | Total    | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn   | Total      |
| 4:00 PM             | 0               | 0        | 55         | 9         | 0        | 64         | 7            | 0          | 0        | 29         | 0        | 36         | 12              | 86         | 0         | 0        | 0        | 98         | 1                       | 0        | 0        | 0         | 0        | 1        | 0                       | 0          | 0         | 0         | 0        | 199        |
| 4:15 PM             | 0               | 0        | 54         | 6         | 0        | 60         | 7            | 0          | 0        | 42         | 0        | 49         | 17              | 87         | 0         | 0        | 0        | 104        | 0                       | 0        | 0        | 0         | 0        | 0        | 0                       | 0          | 0         | 0         | 0        | 213        |
| 4:30 PM             | 1               | 0        | 49         | 4         | 0        | 54         | 12           | 0          | 0        | 24         | 0        | 36         | 13              | 79         | 1         | 0        | 0        | 93         | 0                       | 0        | 2        | 0         | 0        | 2        | 0                       | 0          | 0         | 0         | 0        | 185        |
| 4:45 PM             | 3               | 1        | 42         | 3         | 0        | 49         | 9            | 1          | 0        | 34         | 0        | 44         | 17              | 79         | 0         | 0        | 0        | 96         | 0                       | 1        | 2        | 0         | 0        | 3        | 0                       | 0          | 0         | 0         | 0        | 192        |
| <b>Total Volume</b> | <b>4</b>        | <b>1</b> | <b>200</b> | <b>22</b> | <b>0</b> | <b>227</b> | <b>35</b>    | <b>1</b>   | <b>0</b> | <b>129</b> | <b>0</b> | <b>165</b> | <b>59</b>       | <b>331</b> | <b>1</b>  | <b>0</b> | <b>0</b> | <b>391</b> | <b>1</b>                | <b>1</b> | <b>4</b> | <b>0</b>  | <b>0</b> | <b>6</b> | <b>0</b>                | <b>0</b>   | <b>0</b>  | <b>0</b>  | <b>0</b> | <b>789</b> |
| % Approach Total    | 1.8             | 0.4      | 88.1       | 9.7       | 0.0      |            | 21.2         | 0.6        | 0.0      | 78.2       | 0.0      |            | 15.1            | 84.7       | 0.3       | 0.0      | 0.0      |            | 16.7                    | 16.7     | 66.7     | 0.0       | 0.0      |          | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0      |            |
| PHF                 | 0.333           | 0.250    | 0.909      | 0.611     | 0.000    | 0.887      | 0.729        | 0.250      | 0.000    | 0.768      | 0.000    | 0.842      | 0.868           | 0.951      | 0.250     | 0.000    | 0.000    | 0.940      | 0.250                   | 0.250    | 0.500    | 0.000     | 0.000    | 0.500    | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000    | 0.926      |
| Cars                | 4               | 1        | 196        | 21        | 0        | 222        | 34           | 1          | 0        | 127        | 0        | 162        | 58              | 326        | 1         | 0        | 0        | 385        | 1                       | 1        | 4        | 0         | 0        | 6        | 0                       | 0          | 0         | 0         | 0        | 775        |
| Cars %              | 100.0           | 100.0    | 98.0       | 95.5      | 0.0      | 97.8       | 97.1         | 100.0      | 0.0      | 98.4       | 0.0      | 98.2       | 98.3            | 98.5       | 100.0     | 0.0      | 0.0      | 98.5       | 100.0                   | 100.0    | 100.0    | 0.0       | 0.0      | 100.0    | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0      | 98.2       |
| Heavy Vehicles      | 0               | 0        | 4          | 1         | 0        | 5          | 1            | 0          | 0        | 2          | 0        | 3          | 1               | 5          | 0         | 0        | 0        | 6          | 0                       | 0        | 0        | 0         | 0        | 0        | 0                       | 0          | 0         | 0         | 0        | 14         |
| Heavy Vehicles %    | 0.0             | 0.0      | 2.0        | 4.5       | 0.0      | 2.2        | 2.9          | 0.0        | 0.0      | 1.6        | 0.0      | 1.8        | 1.7             | 1.5        | 0.0       | 0.0      | 0.0      | 1.5        | 0.0                     | 0.0      | 0.0      | 0.0       | 0.0      | 0.0      | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0      | 1.8        |
| Cars Enter Leg      | 4               | 1        | 196        | 21        | 0        | 222        | 34           | 1          | 0        | 127        | 0        | 162        | 58              | 326        | 1         | 0        | 0        | 385        | 1                       | 1        | 4        | 0         | 0        | 6        | 0                       | 0          | 0         | 0         | 0        | 775        |
| Heavy Enter Leg     | 0               | 0        | 4          | 1         | 0        | 5          | 1            | 0          | 0        | 2          | 0        | 3          | 1               | 5          | 0         | 0        | 0        | 6          | 0                       | 0        | 0        | 0         | 0        | 0        | 0                       | 0          | 0         | 0         | 0        | 14         |
| Total Entering Leg  | 4               | 1        | 200        | 22        | 0        | 227        | 35           | 1          | 0        | 129        | 0        | 165        | 59              | 331        | 1         | 0        | 0        | 391        | 1                       | 1        | 4        | 0         | 0        | 6        | 0                       | 0          | 0         | 0         | 0        | 789        |
| Cars Exiting Leg    |                 |          |            |           |          | 364        |              |            |          |            |          | 80         |                 |            |           |          | 324      |            |                         |          |          |           | 1        |          |                         |            |           |           | 6        | 775        |
| Heavy Exiting Leg   |                 |          |            |           |          | 6          |              |            |          |            |          | 2          |                 |            |           |          | 6        |            |                         |          |          |           | 0        |          |                         |            |           |           | 0        | 14         |
| Total Exiting Leg   |                 |          |            |           |          | 370        |              |            |          |            |          | 82         |                 |            |           |          | 330      |            |                         |          |          |           | 1        |          |                         |            |           |           | 6        | 789        |

PDI File #: **228414 F**  
 Location: **N: Highland Street S: Highland Street NW: Church driveway (north)**  
 Location: **E: Davis Street W: Church driveway (south)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:

**PRECISION  
 D A T A  
 INDUSTRIES, LLC**  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Cars**

|                   | Highland Street |          |            |           |          |            | Davis Street |            |          |            |          |            | Highland Street |            |           |          |          |            | Church driveway (south) |          |          |           |          |           | Church driveway (north) |            |           |           |          |          |          |            |
|-------------------|-----------------|----------|------------|-----------|----------|------------|--------------|------------|----------|------------|----------|------------|-----------------|------------|-----------|----------|----------|------------|-------------------------|----------|----------|-----------|----------|-----------|-------------------------|------------|-----------|-----------|----------|----------|----------|------------|
|                   | from North      |          |            |           |          |            | from East    |            |          |            |          |            | from South      |            |           |          |          |            | from West               |          |          |           |          |           | from Northwest          |            |           |           |          |          |          |            |
|                   | Hard Right      | Right    | Thru       | Left      | U-Turn   | Total      | Right        | Bear Right | Thru     | Left       | U-Turn   | Total      | Right           | Thru       | Bear Left | Left     | U-Turn   | Total      | Right                   | Thru     | Left     | Hard Left | U-Turn   | Total     | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn   | Total    | Total    |            |
| 4:00 PM           | 0               | 0        | 55         | 8         | 0        | 63         | 6            | 0          | 0        | 29         | 0        | 35         | 11              | 86         | 0         | 0        | 0        | 97         | 1                       | 0        | 0        | 0         | 0        | 1         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 196        |
| 4:15 PM           | 0               | 0        | 53         | 6         | 0        | 59         | 7            | 0          | 0        | 42         | 0        | 49         | 17              | 83         | 0         | 0        | 0        | 100        | 0                       | 0        | 0        | 0         | 0        | 0         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 208        |
| 4:30 PM           | 1               | 0        | 48         | 4         | 0        | 53         | 12           | 0          | 0        | 24         | 0        | 36         | 13              | 78         | 1         | 0        | 0        | 92         | 0                       | 0        | 2        | 0         | 0        | 2         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 183        |
| 4:45 PM           | 3               | 1        | 40         | 3         | 0        | 47         | 9            | 1          | 0        | 32         | 0        | 42         | 17              | 79         | 0         | 0        | 0        | 96         | 0                       | 1        | 2        | 0         | 0        | 3         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 188        |
| <b>Total</b>      | <b>4</b>        | <b>1</b> | <b>196</b> | <b>21</b> | <b>0</b> | <b>222</b> | <b>34</b>    | <b>1</b>   | <b>0</b> | <b>127</b> | <b>0</b> | <b>162</b> | <b>58</b>       | <b>326</b> | <b>1</b>  | <b>0</b> | <b>0</b> | <b>385</b> | <b>1</b>                | <b>1</b> | <b>4</b> | <b>0</b>  | <b>0</b> | <b>6</b>  | <b>0</b>                | <b>0</b>   | <b>0</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>775</b> |
| 5:00 PM           | 5               | 0        | 44         | 7         | 0        | 56         | 9            | 0          | 0        | 31         | 0        | 40         | 8               | 50         | 1         | 0        | 0        | 59         | 1                       | 0        | 5        | 0         | 0        | 6         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 161        |
| 5:15 PM           | 2               | 0        | 47         | 3         | 0        | 52         | 18           | 1          | 0        | 34         | 0        | 53         | 5               | 56         | 0         | 0        | 0        | 61         | 1                       | 0        | 2        | 0         | 0        | 3         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 169        |
| 5:30 PM           | 0               | 0        | 46         | 8         | 0        | 54         | 10           | 1          | 1        | 34         | 0        | 46         | 12              | 59         | 0         | 0        | 0        | 71         | 1                       | 1        | 1        | 0         | 0        | 3         | 0                       | 1          | 0         | 0         | 0        | 1        | 1        | 175        |
| 5:45 PM           | 0               | 0        | 46         | 7         | 0        | 53         | 9            | 1          | 0        | 26         | 0        | 36         | 7               | 45         | 0         | 0        | 0        | 52         | 1                       | 0        | 0        | 0         | 0        | 1         | 0                       | 0          | 0         | 0         | 0        | 0        | 0        | 142        |
| <b>Total</b>      | <b>7</b>        | <b>0</b> | <b>183</b> | <b>25</b> | <b>0</b> | <b>215</b> | <b>46</b>    | <b>3</b>   | <b>1</b> | <b>125</b> | <b>0</b> | <b>175</b> | <b>32</b>       | <b>210</b> | <b>1</b>  | <b>0</b> | <b>0</b> | <b>243</b> | <b>4</b>                | <b>1</b> | <b>8</b> | <b>0</b>  | <b>0</b> | <b>13</b> | <b>0</b>                | <b>1</b>   | <b>0</b>  | <b>0</b>  | <b>0</b> | <b>1</b> | <b>1</b> | <b>647</b> |
| Grand Total       | 11              | 1        | 379        | 46        | 0        | 437        | 80           | 4          | 1        | 252        | 0        | 337        | 90              | 536        | 2         | 0        | 0        | 628        | 5                       | 2        | 12       | 0         | 0        | 19        | 0                       | 1          | 0         | 0         | 0        | 1        | 1422     |            |
| Approach %        | 2.5             | 0.2      | 86.7       | 10.5      | 0.0      |            | 23.7         | 1.2        | 0.3      | 74.8       | 0.0      |            | 14.3            | 85.4       | 0.3       | 0.0      | 0.0      |            | 26.3                    | 10.5     | 63.2     | 0.0       | 0.0      |           | 0.0                     | 100.0      | 0.0       | 0.0       | 0.0      |          |          |            |
| Total %           | 0.8             | 0.1      | 26.7       | 3.2       | 0.0      | 30.7       | 5.6          | 0.3        | 0.1      | 17.7       | 0.0      | 23.7       | 6.3             | 37.7       | 0.1       | 0.0      | 0.0      | 44.2       | 0.4                     | 0.1      | 0.8      | 0.0       | 0.0      | 1.3       | 0.0                     | 0.1        | 0.0       | 0.0       | 0.0      | 0.1      |          |            |
| Exiting Leg Total | 628             |          |            |           |          |            | 138          |            |          |            |          |            | 637             |            |           |          |          |            | 2                       |          |          |           |          |           | 17                      |            |           |           |          |          | 1422     |            |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM          | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |             |     |
|------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------------|-----|
|                  | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |             |     |
|                  | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total       |     |
| 4:00 PM          | 0               | 0     | 55    | 8     | 0      | 63    | 6            | 0          | 0     | 29    | 0      | 35    | 11              | 86    | 0         | 0     | 0      | 97    | 1                       | 0     | 0     | 0         | 0      | 1     | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 196 |
| 4:15 PM          | 0               | 0     | 53    | 6     | 0      | 59    | 7            | 0          | 0     | 42    | 0      | 49    | 17              | 83    | 0         | 0     | 0      | 100   | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 208 |
| 4:30 PM          | 1               | 0     | 48    | 4     | 0      | 53    | 12           | 0          | 0     | 24    | 0      | 36    | 13              | 78    | 1         | 0     | 0      | 92    | 0                       | 0     | 2     | 0         | 0      | 2     | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 183 |
| 4:45 PM          | 3               | 1     | 40    | 3     | 0      | 47    | 9            | 1          | 0     | 32    | 0      | 42    | 17              | 79    | 0         | 0     | 0      | 96    | 0                       | 1     | 2     | 0         | 0      | 3     | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 188 |
| Total Volume     | 4               | 1     | 196   | 21    | 0      | 222   | 34           | 1          | 0     | 127   | 0      | 162   | 58              | 326   | 1         | 0     | 0      | 385   | 1                       | 1     | 4     | 0         | 0      | 6     | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 775 |
| % Approach Total | 1.8             | 0.5   | 88.3  | 9.5   | 0.0    |       | 21.0         | 0.6        | 0.0   | 78.4  | 0.0    |       | 15.1            | 84.7  | 0.3       | 0.0   | 0.0    |       | 16.7                    | 16.7  | 66.7  | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |             |     |
| PHF              | 0.333           | 0.250 | 0.891 | 0.656 | 0.000  | 0.881 | 0.708        | 0.250      | 0.000 | 0.756 | 0.000  | 0.827 | 0.853           | 0.948 | 0.250     | 0.000 | 0.000  | 0.963 | 0.250                   | 0.250 | 0.500 | 0.000     | 0.000  | 0.500 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000  | 0.000 | 0.931       |     |
| Entering Leg     | 4               | 1     | 196   | 21    | 0      | 222   | 34           | 1          | 0     | 127   | 0      | 162   | 58              | 326   | 1         | 0     | 0      | 385   | 1                       | 1     | 4     | 0         | 0      | 6     | 0                       | 0          | 0         | 0         | 0      | 0     | 0           | 775 |
| Exiting Leg      | 364             |       |       |       |        |       | 80           |            |       |       |        |       | 324             |       |           |       |        |       | 1                       |       |       |           |        |       | 6                       |            |           |           |        |       | 775         |     |
| <b>Total</b>     | <b>586</b>      |       |       |       |        |       | <b>242</b>   |            |       |       |        |       | <b>709</b>      |       |           |       |        |       | <b>7</b>                |       |       |           |        |       | <b>6</b>                |            |           |           |        |       | <b>1550</b> |     |

PDI File #: 228414 F  
 Location: N: Highland Street S: Highland Street NW: Church driveway (north)  
 Location: E: Davis Street W: Church driveway (south)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:

PRECISION  
 DATA  
 INDUSTRIES, LLC  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

|                    | Highland Street |       |      |       |        |       | Davis Street |            |      |       |        |       | Highland Street |      |           |      |        |       | Church driveway (south) |      |      |           |        |       | Church driveway (north) |            |           |           |        |       |
|--------------------|-----------------|-------|------|-------|--------|-------|--------------|------------|------|-------|--------|-------|-----------------|------|-----------|------|--------|-------|-------------------------|------|------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|
|                    | from North      |       |      |       |        |       | from East    |            |      |       |        |       | from South      |      |           |      |        |       | from West               |      |      |           |        |       | from Northwest          |            |           |           |        |       |
|                    | Hard Right      | Right | Thru | Left  | U-Turn | Total | Right        | Bear Right | Thru | Left  | U-Turn | Total | Right           | Thru | Bear Left | Left | U-Turn | Total | Right                   | Thru | Left | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total |
| 4:00 PM            | 0               | 0     | 0    | 1     | 0      | 1     | 1            | 0          | 0    | 0     | 0      | 1     | 1               | 0    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 3      |       |
| 4:15 PM            | 0               | 0     | 1    | 0     | 0      | 1     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 4    | 0         | 0    | 0      | 4     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 5         |        |       |
| 4:30 PM            | 0               | 0     | 1    | 0     | 0      | 1     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 1    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 2         |        |       |
| 4:45 PM            | 0               | 0     | 2    | 0     | 0      | 2     | 0            | 0          | 0    | 2     | 0      | 2     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 4         |        |       |
| <b>Total</b>       | 0               | 0     | 4    | 1     | 0      | 5     | 1            | 0          | 0    | 2     | 0      | 3     | 1               | 5    | 0         | 0    | 0      | 6     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 14        |        |       |
| 5:00 PM            | 0               | 0     | 0    | 0     | 0      | 0     | 0            | 0          | 0    | 1     | 0      | 1     | 1               | 1    | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 3         |        |       |
| 5:15 PM            | 0               | 0     | 0    | 0     | 0      | 0     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         |        |       |
| 5:30 PM            | 0               | 0     | 2    | 0     | 0      | 2     | 0            | 0          | 0    | 2     | 0      | 2     | 0               | 1    | 0         | 0    | 1      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 5         |        |       |
| 5:45 PM            | 0               | 0     | 0    | 0     | 0      | 0     | 0            | 0          | 0    | 1     | 0      | 1     | 0               | 2    | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 3         |        |       |
| <b>Total</b>       | 0               | 0     | 2    | 0     | 0      | 2     | 0            | 0          | 0    | 4     | 0      | 4     | 1               | 4    | 0         | 0    | 0      | 5     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 11        |        |       |
| Grand Total        | 0               | 0     | 6    | 1     | 0      | 7     | 1            | 0          | 0    | 6     | 0      | 7     | 2               | 9    | 0         | 0    | 11     | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 25        |        |       |
| Approach %         | 0.0             | 0.0   | 85.7 | 14.3  | 0.0    |       | 14.3         | 0.0        | 0.0  | 85.7  | 0.0    |       | 18.2            | 81.8 | 0.0       | 0.0  | 0.0    | 0.0   | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       |           |        |       |
| Total %            | 0.0             | 0.0   | 24.0 | 4.0   | 0.0    | 28.0  | 4.0          | 0.0        | 0.0  | 24.0  | 0.0    | 28.0  | 8.0             | 36.0 | 0.0       | 0.0  | 0.0    | 44.0  | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       |           |        |       |
| Exiting Leg Total  | 10              |       |      |       |        |       | 3            |            |      |       |        |       | 12              |      |           |      |        |       | 0                       |      |      |           |        |       | 0                       | 25         |           |           |        |       |
| Buses              | 0               | 0     | 2    | 0     | 0      | 2     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 3    | 0         | 0    | 0      | 3     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 5         |        |       |
| % Buses            | 0.0             | 0.0   | 33.3 | 0.0   | 0.0    | 28.6  | 0.0          | 0.0        | 0.0  | 0.0   | 0.0    | 0.0   | 0.0             | 33.3 | 0.0       | 0.0  | 0.0    | 27.3  | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 20.0      |        |       |
| Exiting Leg Total  | 3               |       |      |       |        |       | 0            |            |      |       |        |       | 2               |      |           |      |        |       | 0                       |      |      |           |        |       | 0                       | 5          |           |           |        |       |
| Single-Unit Trucks | 0               | 0     | 4    | 1     | 0      | 5     | 1            | 0          | 0    | 6     | 0      | 7     | 2               | 6    | 0         | 0    | 8      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 20        |        |       |
| % Single-Unit      | 0.0             | 0.0   | 66.7 | 100.0 | 0.0    | 71.4  | 100.0        | 0.0        | 0.0  | 100.0 | 0.0    | 100.0 | 100.0           | 66.7 | 0.0       | 0.0  | 72.7   | 0.0   | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 80.0      |        |       |
| Exiting Leg Total  | 7               |       |      |       |        |       | 3            |            |      |       |        |       | 10              |      |           |      |        |       | 0                       |      |      |           |        |       | 0                       | 20         |           |           |        |       |
| Articulated Trucks | 0               | 0     | 0    | 0     | 0      | 0     | 0            | 0          | 0    | 0     | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         |        |       |
| % Articulated      | 0.0             | 0.0   | 0.0  | 0.0   | 0.0    | 0.0   | 0.0          | 0.0        | 0.0  | 0.0   | 0.0    | 0.0   | 0.0             | 0.0  | 0.0       | 0.0  | 0.0    | 0.0   | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       |        |       |
| Exiting Leg Total  | 0               |       |      |       |        |       | 0            |            |      |       |        |       | 0               |      |           |      |        |       | 0                       |      |      |           |        |       | 0                       | 0          |           |           |        |       |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                           | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |
|---------------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|
|                           | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |
|                           | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total |
| 4:00 PM                   | 0               | 0     | 0     | 1     | 0      | 1     | 1            | 0          | 0     | 0     | 0      | 1     | 1               | 0     | 0         | 0     | 0      | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 3         |        |       |
| 4:15 PM                   | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 4     | 0         | 0     | 0      | 4     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 5         |        |       |
| 4:30 PM                   | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 1     | 0         | 0     | 0      | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 2         |        |       |
| 4:45 PM                   | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 2     | 0      | 2     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 4         |        |       |
| <b>Total Volume</b>       | 0               | 0     | 4     | 1     | 0      | 5     | 1            | 0          | 0     | 2     | 0      | 3     | 1               | 5     | 0         | 0     | 6      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 14        |        |       |
| % Approach Total          | 0.0             | 0.0   | 80.0  | 20.0  | 0.0    |       | 33.3         | 0.0        | 0.0   | 66.7  | 0.0    |       | 16.7            | 83.3  | 0.0       | 0.0   | 0.0    | 0.0   | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       |           |        |       |
| PHF                       | 0.000           | 0.000 | 0.500 | 0.250 | 0.000  | 0.625 | 0.250        | 0.000      | 0.000 | 0.250 | 0.000  | 0.375 | 0.250           | 0.313 | 0.000     | 0.000 | 0.000  | 0.375 | 0.000                   | 0.000 | 0.000 | 0.000     | 0.000  | 0.000 | 0.000                   | 0.000      | 0.000     | 0.700     |        |       |
| Buses                     | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 3     | 0         | 0     | 3      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 5         |        |       |
| Buses %                   | 0.0             | 0.0   | 50.0  | 0.0   | 0.0    | 40.0  | 0.0          | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 0.0             | 60.0  | 0.0       | 0.0   | 50.0   | 0.0   | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 35.7      |        |       |
| Single-Unit Trucks        | 0               | 0     | 2     | 1     | 0      | 3     | 1            | 0          | 0     | 2     | 0      | 3     | 1               | 2     | 0         | 0     | 3      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 9         |        |       |
| Single-Unit %             | 0.0             | 0.0   | 50.0  | 100.0 | 0.0    | 60.0  | 100.0        | 0.0        | 0.0   | 100.0 | 0.0    | 100.0 | 100.0           | 40.0  | 0.0       | 0.0   | 50.0   | 0.0   | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 64.3      |        |       |
| Articulated Trucks        | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         |        |       |
| Articulated %             | 0.0             | 0.0   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0          | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 0.0             | 0.0   | 0.0       | 0.0   | 0.0    | 0.0   | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       |        |       |
| Buses                     | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 3     | 0         | 0     | 3      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 5         |        |       |
| Single-Unit Trucks        | 0               | 0     | 2     | 1     | 0      | 3     | 1            | 0          | 0     | 2     | 0      | 3     | 1               | 2     | 0         | 0     | 3      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 9         |        |       |
| Articulated Trucks        | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         |        |       |
| <b>Total Entering Leg</b> | 0               | 0     | 4     | 1     | 0      | 5     | 1            | 0          | 0     | 2     | 0      | 3     | 1               | 5     | 0         | 0     | 6      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 14        |        |       |
| Buses                     | 3               |       |       |       |        |       | 0            |            |       |       |        |       | 2               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       | 5          |           |           |        |       |
| Single-Unit Trucks        | 3               |       |       |       |        |       | 2            |            |       |       |        |       | 4               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       | 9          |           |           |        |       |
| Articulated Trucks        | 0               |       |       |       |        |       | 0            |            |       |       |        |       | 0               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       | 0          |           |           |        |       |
| <b>Total Exiting Leg</b>  | 6               |       |       |       |        |       | 2            |            |       |       |        |       | 6               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       | 14         |           |           |        |       |

PDI File #: **228414 F**  
 Location: **N: Highland Street S: Highland Street NW: Church driveway (north)**  
 Location: **E: Davis Street W: Church driveway (south)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:

**PRECISION  
 D A T A  
 INDUSTRIES, LLC**  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Buses**

|                   | Highland Street |       |       |      |        |       | Davis Street |            |      |      |        |       | Highland Street |       |           |      |        |       | Church driveway (south) |      |      |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|-------------------|-----------------|-------|-------|------|--------|-------|--------------|------------|------|------|--------|-------|-----------------|-------|-----------|------|--------|-------|-------------------------|------|------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                   | from North      |       |       |      |        |       | from East    |            |      |      |        |       | from South      |       |           |      |        |       | from West               |      |      |           |        |       | from Northwest          |            |           |           |        |       |       |
|                   | Hard Right      | Right | Thru  | Left | U-Turn | Total | Right        | Bear Right | Thru | Left | U-Turn | Total | Right           | Thru  | Bear Left | Left | U-Turn | Total | Right                   | Thru | Left | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 4:00 PM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 4:15 PM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 2     | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| 4:30 PM           | 0               | 0     | 1     | 0    | 0      | 1     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 1     | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 2     |
| 4:45 PM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| <b>Total</b>      | 0               | 0     | 2     | 0    | 0      | 2     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 3     | 0         | 0    | 0      | 3     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| 5:00 PM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 5:15 PM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 5:30 PM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 5:45 PM           | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| <b>Total</b>      | 0               | 0     | 0     | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| Grand Total       | 0               | 0     | 2     | 0    | 0      | 2     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 3     | 0         | 0    | 0      | 3     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| Approach %        | 0.0             | 0.0   | 100.0 | 0.0  | 0.0    |       | 0.0          | 0.0        | 0.0  | 0.0  | 0.0    |       | 0.0             | 100.0 | 0.0       | 0.0  | 0.0    |       | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |
| Total %           | 0.0             | 0.0   | 40.0  | 0.0  | 0.0    | 40.0  | 0.0          | 0.0        | 0.0  | 0.0  | 0.0    | 60.0  | 0.0             | 60.0  | 0.0       | 0.0  | 0.0    | 60.0  | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   |       |
| Exiting Leg Total | 3               |       |       |      |        |       | 0            |            |      |      |        |       | 2               |       |           |      |        |       | 0                       |      |      |           |        |       | 0                       | 5          |           |           |        |       |       |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                     | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|---------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                     | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |       |
|                     | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 4:00 PM             | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| 4:15 PM             | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 2     | 0         | 0     | 0      | 2     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 3     |
| 4:30 PM             | 0               | 0     | 1     | 0     | 0      | 1     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 1     | 0         | 0     | 0      | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 2     |
| 4:45 PM             | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     |
| <b>Total Volume</b> | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 3     | 0         | 0     | 0      | 3     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| % Approach Total    | 0.0             | 0.0   | 100.0 | 0.0   | 0.0    |       | 0.0          | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 0.0             | 100.0 | 0.0       | 0.0   | 0.0    |       | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |
| PHF                 | 0.000           | 0.000 | 0.500 | 0.000 | 0.000  | 0.500 | 0.000        | 0.000      | 0.000 | 0.000 | 0.000  | 0.000 | 0.000           | 0.375 | 0.000     | 0.000 | 0.000  | 0.375 | 0.000                   | 0.000 | 0.000 | 0.000     | 0.000  | 0.000 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000  | 0.000 | 0.417 |
| Entering Leg        | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 3     | 0         | 0     | 0      | 3     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 5     |
| Exiting Leg         | 3               |       |       |       |        |       | 0            |            |       |       |        |       | 2               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       | 5          |           |           |        |       |       |
| <b>Total</b>        | 5               |       |       |       |        |       | 0            |            |       |       |        |       | 5               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       | 10         |           |           |        |       |       |

PDI File #: **228414 F**  
 Location: **N: Highland Street S: Highland Street NW: Church driveway (north)**  
 Location: **E: Davis Street W: Church driveway (south)**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:

**PRECISION  
 D A T A  
 INDUSTRIES, LLC**  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Single-Unit Trucks**

|                   | Highland Street |       |      |      |        |       | Davis Street |            |      |      |        |       | Highland Street |      |           |      |        |       | Church driveway (south) |      |      |           |        |       | Church driveway (north) |            |           |           |        |       |       |    |
|-------------------|-----------------|-------|------|------|--------|-------|--------------|------------|------|------|--------|-------|-----------------|------|-----------|------|--------|-------|-------------------------|------|------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|----|
|                   | from North      |       |      |      |        |       | from East    |            |      |      |        |       | from South      |      |           |      |        |       | from West               |      |      |           |        |       | from Northwest          |            |           |           |        |       |       |    |
|                   | Hard Right      | Right | Thru | Left | U-Turn | Total | Right        | Bear Right | Thru | Left | U-Turn | Total | Right           | Thru | Bear Left | Left | U-Turn | Total | Right                   | Thru | Left | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |    |
| 4:00 PM           | 0               | 0     | 0    | 1    | 0      | 1     | 1            | 0          | 0    | 0    | 0      | 1     | 1               | 0    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 3  |
| 4:15 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 2    | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 2  |
| 4:30 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 0  |
| 4:45 PM           | 0               | 0     | 2    | 0    | 0      | 2     | 0            | 0          | 0    | 2    | 0      | 2     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 4  |
| <b>Total</b>      | 0               | 0     | 2    | 1    | 0      | 3     | 1            | 0          | 0    | 2    | 0      | 3     | 1               | 2    | 0         | 0    | 0      | 3     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 9  |
| 5:00 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 1    | 0      | 1     | 1               | 1    | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 3  |
| 5:15 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 0  |
| 5:30 PM           | 0               | 0     | 2    | 0    | 0      | 2     | 0            | 0          | 0    | 2    | 0      | 2     | 0               | 1    | 0         | 0    | 0      | 1     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 5  |
| 5:45 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 1    | 0      | 1     | 0               | 2    | 0         | 0    | 0      | 2     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 3  |
| <b>Total</b>      | 0               | 0     | 2    | 0    | 0      | 2     | 0            | 0          | 0    | 4    | 0      | 4     | 1               | 4    | 0         | 0    | 0      | 5     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 11 |
| Grand Total       | 0               | 0     | 4    | 1    | 0      | 5     | 1            | 0          | 0    | 6    | 0      | 7     | 2               | 6    | 0         | 0    | 0      | 8     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 20 |
| Approach %        | 0.0             | 0.0   | 80.0 | 20.0 | 0.0    |       | 14.3         | 0.0        | 0.0  | 85.7 | 0.0    |       | 25.0            | 75.0 | 0.0       | 0.0  | 0.0    |       | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |    |
| Total %           | 0.0             | 0.0   | 20.0 | 5.0  | 0.0    | 25.0  | 5.0          | 0.0        | 0.0  | 30.0 | 0.0    | 35.0  | 10.0            | 30.0 | 0.0       | 0.0  | 0.0    | 40.0  | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   |       |    |
| Exiting Leg Total | 7               |       |      |      |        |       | 3            |            |      |      |        |       | 10              |      |           |      |        |       | 0                       |      |      |           |        |       | 20                      |            |           |           |        |       |       |    |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:45 PM          | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |       |    |
|------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|----|
|                  | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |       |    |
|                  | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |    |
| 4:45 PM          | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 2     | 0      | 2     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 4  |
| 5:00 PM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 1     | 0      | 1     | 1               | 1     | 0         | 0     | 0      | 2     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 3  |
| 5:15 PM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 0  |
| 5:30 PM          | 0               | 0     | 2     | 0     | 0      | 2     | 0            | 0          | 0     | 2     | 0      | 2     | 0               | 1     | 0         | 0     | 0      | 1     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 5  |
| Total Volume     | 0               | 0     | 4     | 0     | 0      | 4     | 0            | 0          | 0     | 5     | 0      | 5     | 1               | 2     | 0         | 0     | 0      | 3     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 12 |
| % Approach Total | 0.0             | 0.0   | 100.0 | 0.0   | 0.0    |       | 0.0          | 0.0        | 0.0   | 100.0 | 0.0    |       | 33.3            | 66.7  | 0.0       | 0.0   | 0.0    |       | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    |       | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    |       |       |    |
| PHF              | 0.000           | 0.000 | 0.500 | 0.000 | 0.000  | 0.500 | 0.000        | 0.000      | 0.000 | 0.625 | 0.000  | 0.625 | 0.250           | 0.500 | 0.000     | 0.000 | 0.000  | 0.375 | 0.000                   | 0.000 | 0.000 | 0.000     | 0.000  | 0.000 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000  | 0.000 | 0.600 |    |
| Entering Leg     | 0               | 0     | 4     | 0     | 0      | 4     | 0            | 0          | 0     | 5     | 0      | 5     | 1               | 2     | 0         | 0     | 0      | 3     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     | 0     | 12 |
| Exiting Leg      | 2               |       |       |       |        |       | 1            |            |       |       |        |       | 9               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       |            |           |           |        |       |       |    |
| <b>Total</b>     | 6               |       |       |       |        |       | 6            |            |       |       |        |       | 12              |       |           |       |        |       | 0                       |       |       |           |        |       | 24                      |            |           |           |        |       |       |    |

PDI File #: 228414 F  
 Location: N: Highland Street S: Highland Street NW: Church driveway (north)  
 Location: E: Davis Street W: Church driveway (south)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:

PRECISION  
 D A T A  
 INDUSTRIES, LLC  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Articulated Trucks**

|                   | Highland Street |       |      |      |        |       | Davis Street |            |      |      |        |       | Highland Street |      |           |      |        |       | Church driveway (south) |      |      |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|-------------------|-----------------|-------|------|------|--------|-------|--------------|------------|------|------|--------|-------|-----------------|------|-----------|------|--------|-------|-------------------------|------|------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                   | from North      |       |      |      |        |       | from East    |            |      |      |        |       | from South      |      |           |      |        |       | from West               |      |      |           |        |       | from Northwest          |            |           |           |        |       |       |
|                   | Hard Right      | Right | Thru | Left | U-Turn | Total | Right        | Bear Right | Thru | Left | U-Turn | Total | Right           | Thru | Bear Left | Left | U-Turn | Total | Right                   | Thru | Left | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 4:00 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| 4:15 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| 4:30 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| 4:45 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| Total             | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| 5:00 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| 5:15 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| 5:30 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| 5:45 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| Total             | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| Grand Total       | 0               | 0     | 0    | 0    | 0      | 0     | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0    | 0         | 0    | 0      | 0     | 0                       | 0    | 0    | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| Approach %        | 0.0             | 0.0   | 0.0  | 0.0  | 0.0    | 0.0   | 0.0          | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 0.0             | 0.0  | 0.0       | 0.0  | 0.0    | 0.0   | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   |       |
| Total %           | 0.0             | 0.0   | 0.0  | 0.0  | 0.0    | 0.0   | 0.0          | 0.0        | 0.0  | 0.0  | 0.0    | 0.0   | 0.0             | 0.0  | 0.0       | 0.0  | 0.0    | 0.0   | 0.0                     | 0.0  | 0.0  | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   |       |
| Exiting Leg Total | 0               |       |      |      |        |       | 0            |            |      |      |        |       | 0               |      |           |      |        |       | 0                       |      |      |           |        |       | 0                       |            |           |           |        |       | 0     |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Highland Street |       |       |       |        |       | Davis Street |            |       |       |        |       | Highland Street |       |           |       |        |       | Church driveway (south) |       |       |           |        |       | Church driveway (north) |            |           |           |        |       |       |
|------------------|-----------------|-------|-------|-------|--------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-----------|-------|--------|-------|-------------------------|-------|-------|-----------|--------|-------|-------------------------|------------|-----------|-----------|--------|-------|-------|
|                  | from North      |       |       |       |        |       | from East    |            |       |       |        |       | from South      |       |           |       |        |       | from West               |       |       |           |        |       | from Northwest          |            |           |           |        |       |       |
|                  | Hard Right      | Right | Thru  | Left  | U-Turn | Total | Right        | Bear Right | Thru  | Left  | U-Turn | Total | Right           | Thru  | Bear Left | Left  | U-Turn | Total | Right                   | Thru  | Left  | Hard Left | U-Turn | Total | Hard Right              | Bear Right | Bear Left | Hard Left | U-Turn | Total | Total |
| 4:00 PM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| 4:15 PM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| 4:30 PM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| 4:45 PM          | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| Total Volume     | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| % Approach Total | 0.0             | 0.0   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0          | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 0.0             | 0.0   | 0.0       | 0.0   | 0.0    | 0.0   | 0.0                     | 0.0   | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                     | 0.0        | 0.0       | 0.0       | 0.0    | 0.0   |       |
| PHF              | 0.000           | 0.000 | 0.000 | 0.000 | 0.000  | 0.000 | 0.000        | 0.000      | 0.000 | 0.000 | 0.000  | 0.000 | 0.000           | 0.000 | 0.000     | 0.000 | 0.000  | 0.000 | 0.000                   | 0.000 | 0.000 | 0.000     | 0.000  | 0.000 | 0.000                   | 0.000      | 0.000     | 0.000     | 0.000  | 0.000 |       |
| Entering Leg     | 0               | 0     | 0     | 0     | 0      | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0         | 0     | 0      | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0                       | 0          | 0         | 0         | 0      | 0     |       |
| Exiting Leg      | 0               |       |       |       |        |       | 0            |            |       |       |        |       | 0               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       |            |           |           |        |       | 0     |
| Total            | 0               |       |       |       |        |       | 0            |            |       |       |        |       | 0               |       |           |       |        |       | 0                       |       |       |           |        |       | 0                       |            |           |           |        |       | 0     |





PDI File #: 228414 F  
 Location: N: Highland Street S: Highland Street NW: Church driveway (north)  
 Location: E: Davis Street W: Church driveway (south)  
 City, State: Newton, MA  
 Client: VHB/M. Duranleau  
 Site Code: TBD  
 Count Date: Thursday, February 10, 2022  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:

PRECISION  
 D A T A  
 INDUSTRIES, LLC  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Pedestrians**

|                   | Highland Street |       |      |      |        |       |       |       |   | Davis Street |            |      |      |        |       | Highland Street |       |   |       |      |           | Church driveway (south) |        |       |       |       |   | Church driveway (north) |      |      |           |        |       | Total |       |       |   |            |            |           |           |        |       |
|-------------------|-----------------|-------|------|------|--------|-------|-------|-------|---|--------------|------------|------|------|--------|-------|-----------------|-------|---|-------|------|-----------|-------------------------|--------|-------|-------|-------|---|-------------------------|------|------|-----------|--------|-------|-------|-------|-------|---|------------|------------|-----------|-----------|--------|-------|
|                   | from North      |       |      |      |        |       |       |       |   | from East    |            |      |      |        |       | from South      |       |   |       |      |           | from West               |        |       |       |       |   | from Northwest          |      |      |           |        |       |       |       |       |   |            |            |           |           |        |       |
|                   | Hard Right      | Right | Thru | Left | U-Turn | CW-EB | CW-WB | Total |   | Right        | Bear Right | Thru | Left | U-Turn | CW-SB | CW-NB           | Total |   | Right | Thru | Bear Left | Left                    | U-Turn | CW-WB | CW-EB | Total |   | Right                   | Thru | Left | Hard Left | U-Turn | CW-NB |       | CW-SB | Total |   | Hard Right | Bear Right | Bear Left | Hard Left | U-Turn | CW-NB |
| 4:00 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 0      | 1     | 0               | 1     | 0 | 0     | 0    | 0         | 0                       | 0      | 0     | 0     | 0     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 0      | 2     |
| 4:15 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 2      | 0     | 2               | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 0     | 0     | 0     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 0      | 2     |
| 4:30 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 0      | 1     | 1               | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 0     | 0     | 0     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 0      | 6     |
| 4:45 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 1      | 0     | 1               | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 0     | 0     | 0     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 0      | 8     |
| Total             | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 4      | 1     | 5               | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 0     | 0     | 0     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 18     |       |
| 5:00 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 1      | 0     | 1               | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 0     | 1     | 1     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 0      | 13    |
| 5:15 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 0     | 0     | 0     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 9      |       |
| 5:30 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 0      | 0     | 0               | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 0     | 0     | 0     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 4      |       |
| 5:45 PM           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 2      | 0     | 2               | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 0     | 0     | 0     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 0      | 2     |
| Total             | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 3      | 0     | 3               | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 0     | 1     | 1     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 28     |       |
| Grand Total       | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 7      | 1     | 8               | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 1     | 1     | 0     | 0 | 0                       | 0    | 0    | 0         | 0      | 0     | 0     | 0     | 0     | 0 | 0          | 0          | 0         | 0         | 46     |       |
| Approach %        | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 88     | 13    |                 | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 100   |       | 0     | 0 | 0                       | 0    | 0    | 0         | 50     | 50    |       | 0     | 0     | 0 | 0          | 0          | 24        | 76        |        |       |
| Total %           | 0               | 0     | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0            | 0          | 0    | 0    | 15     | 2.2   | 17              | 0     | 0 | 0     | 0    | 0         | 0                       | 0      | 2.2   | 2.2   |       | 0 | 0                       | 0    | 0    | 0         | 4.3    | 4.3   | 8.7   |       | 0     | 0 | 0          | 0          | 17        | 54        | 72     |       |
| Exiting Leg Total | 0               |       |      |      |        |       |       |       |   | 8            |            |      |      |        |       | 1               |       |   |       |      |           | 4                       |        |       |       |       |   | 33                      |      |      |           |        |       | 46    |       |       |   |            |            |           |           |        |       |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Highland Street |       |       |       |        |       |       |       |       | Davis Street |            |       |       |        |       | Highland Street |       |       |       |       |           | Church driveway (south) |        |       |       |       |       | Church driveway (north) |       |       |           |        |       | Total |       |       |       |            |            |           |           |        |       |        |
|------------------|-----------------|-------|-------|-------|--------|-------|-------|-------|-------|--------------|------------|-------|-------|--------|-------|-----------------|-------|-------|-------|-------|-----------|-------------------------|--------|-------|-------|-------|-------|-------------------------|-------|-------|-----------|--------|-------|-------|-------|-------|-------|------------|------------|-----------|-----------|--------|-------|--------|
|                  | from North      |       |       |       |        |       |       |       |       | from East    |            |       |       |        |       | from South      |       |       |       |       |           | from West               |        |       |       |       |       | from Northwest          |       |       |           |        |       |       |       |       |       |            |            |           |           |        |       |        |
|                  | Hard Right      | Right | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total |       | Right        | Bear Right | Thru  | Left  | U-Turn | CW-SB | CW-NB           | Total |       | Right | Thru  | Bear Left | Left                    | U-Turn | CW-WB | CW-EB | Total |       | Right                   | Thru  | Left  | Hard Left | U-Turn | CW-NB |       | CW-SB | Total |       | Hard Right | Bear Right | Bear Left | Hard Left | U-Turn | CW-NB | CW-SWB |
| 4:30 PM          | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 0      | 1     | 1               | 0     | 0     | 0     | 0     | 0         | 0                       | 0      | 0     | 0     | 0     | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0     | 0     | 0          | 0          | 0         | 0         | 6      |       |        |
| 4:45 PM          | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 1      | 0     | 1               | 0     | 0     | 0     | 0     | 0         | 0                       | 0      | 0     | 0     | 0     | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0     | 0     | 0          | 0          | 0         | 0         | 0      | 8     |        |
| 5:00 PM          | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 1      | 0     | 1               | 0     | 0     | 0     | 0     | 0         | 0                       | 0      | 1     | 1     | 0     | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0     | 0     | 0          | 0          | 0         | 0         | 0      | 13    |        |
| 5:15 PM          | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 0      | 0     | 0               | 0     | 0     | 0     | 0     | 0         | 0                       | 0      | 0     | 0     | 0     | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0     | 0     | 0          | 0          | 0         | 0         | 0      | 9     |        |
| Total Volume     | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 2      | 1     | 3               | 0     | 0     | 0     | 0     | 0         | 0                       | 0      | 1     | 1     | 0     | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0     | 0     | 0          | 0          | 0         | 0         | 0      | 36    |        |
| % Approach Total | 0.0             | 0.0   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0          | 0.0        | 0.0   | 0.0   | 66.7   | 33.3  |                 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0       | 0.0                     | 0.0    | 100.0 |       | 0.0   | 0.0   | 0.0                     | 0.0   | 0.0   | 0.0       | 100.0  |       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0        | 19.4       | 80.6      |           |        |       |        |
| PHF              | 0.000           | 0.000 | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000        | 0.000      | 0.000 | 0.500 | 0.250  | 0.750 |                 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000     | 0.000                   | 0.000  | 0.250 | 0.250 |       | 0.000 | 0.000                   | 0.000 | 0.000 | 0.000     | 0.000  | 0.250 | 0.250 |       | 0.000 | 0.000 | 0.000      | 0.000      | 0.000     | 0.750     | 0.694  | 0.775 | 0.692  |
| Entering Leg     | 0               | 0     | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 0          | 0     | 0     | 2      | 1     | 3               | 0     | 0     | 0     | 0     | 0         | 0                       | 0      | 1     | 1     | 0     | 0     | 0                       | 0     | 0     | 0         | 0      | 0     | 0     | 0     | 0     | 0     | 0          | 0          | 0         | 0         | 36     |       |        |
| Exiting Leg      | 0               |       |       |       |        |       |       |       |       | 3            |            |       |       |        |       | 1               |       |       |       |       |           | 1                       |        |       |       |       |       | 31                      |       |       |           |        |       | 36    |       |       |       |            |            |           |           |        |       |        |
| Total            | 0               |       |       |       |        |       |       |       |       | 6            |            |       |       |        |       | 2               |       |       |       |       |           | 2                       |        |       |       |       |       | 62                      |       |       |           |        |       | 72    |       |       |       |            |            |           |           |        |       |        |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Chestnut Street |           |          |            | Chestnut Street |          |          |           | Davis Street |            |          |            | Total      |
|-------------------|-----------------|-----------|----------|------------|-----------------|----------|----------|-----------|--------------|------------|----------|------------|------------|
|                   | from North      |           |          |            | from South      |          |          |           | from West    |            |          |            |            |
|                   | Right           | Thru      | U-Turn   | Total      | Thru            | Left     | U-Turn   | Total     | Right        | Left       | U-Turn   | Total      |            |
| 7:00 AM           | 0               | 12        | 0        | 12         | 28              | 2        | 0        | 30        | 1            | 1          | 0        | 2          | 44         |
| 7:15 AM           | 7               | 16        | 0        | 23         | 10              | 0        | 0        | 10        | 5            | 5          | 0        | 10         | 43         |
| 7:30 AM           | 29              | 1         | 1        | 31         | 1               | 0        | 0        | 1         | 0            | 35         | 1        | 36         | 68         |
| 7:45 AM           | 34              | 1         | 3        | 38         | 1               | 0        | 0        | 1         | 0            | 48         | 0        | 48         | 87         |
| <b>Total</b>      | <b>70</b>       | <b>30</b> | <b>4</b> | <b>104</b> | <b>40</b>       | <b>2</b> | <b>0</b> | <b>42</b> | <b>6</b>     | <b>89</b>  | <b>1</b> | <b>96</b>  | <b>242</b> |
| 8:00 AM           | 40              | 0         | 1        | 41         | 0               | 1        | 0        | 1         | 2            | 36         | 0        | 38         | 80         |
| 8:15 AM           | 32              | 1         | 2        | 35         | 2               | 0        | 0        | 2         | 2            | 31         | 1        | 34         | 71         |
| 8:30 AM           | 42              | 1         | 0        | 43         | 2               | 0        | 0        | 2         | 0            | 51         | 0        | 51         | 96         |
| 8:45 AM           | 58              | 1         | 1        | 60         | 9               | 0        | 0        | 9         | 0            | 47         | 2        | 49         | 118        |
| <b>Total</b>      | <b>172</b>      | <b>3</b>  | <b>4</b> | <b>179</b> | <b>13</b>       | <b>1</b> | <b>0</b> | <b>14</b> | <b>4</b>     | <b>165</b> | <b>3</b> | <b>172</b> | <b>365</b> |
| Grand Total       | 242             | 33        | 8        | 283        | 53              | 3        | 0        | 56        | 10           | 254        | 4        | 268        | 607        |
| Approach %        | 85.5            | 11.7      | 2.8      |            | 94.6            | 5.4      | 0.0      |           | 3.7          | 94.8       | 1.5      |            |            |
| Total %           | 39.9            | 5.4       | 1.3      | 46.6       | 8.7             | 0.5      | 0.0      | 9.2       | 1.6          | 41.8       | 0.7      | 44.2       |            |
| Exiting Leg Total |                 |           |          | 315        |                 |          |          | 43        |              |            |          | 249        | 607        |
| Cars              | 233             | 29        | 8        | 270        | 46              | 3        | 0        | 49        | 9            | 252        | 4        | 265        | 584        |
| % Cars            | 96.3            | 87.9      | 100.0    | 95.4       | 86.8            | 100.0    | 0.0      | 87.5      | 90.0         | 99.2       | 100.0    | 98.9       | 96.2       |
| Exiting Leg Total |                 |           |          | 306        |                 |          |          | 38        |              |            |          | 240        | 584        |
| Heavy Vehicles    | 9               | 4         | 0        | 13         | 7               | 0        | 0        | 7         | 1            | 2          | 0        | 3          | 23         |
| % Heavy Vehicles  | 3.7             | 12.1      | 0.0      | 4.6        | 13.2            | 0.0      | 0.0      | 12.5      | 10.0         | 0.8        | 0.0      | 1.1        | 3.8        |
| Exiting Leg Total |                 |           |          | 9          |                 |          |          | 5         |              |            |          | 9          | 23         |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 8:00 AM            | Chestnut Street |       |        |       | Chestnut Street |       |        |       | Davis Street |       |        |       | Total |
|--------------------|-----------------|-------|--------|-------|-----------------|-------|--------|-------|--------------|-------|--------|-------|-------|
|                    | from North      |       |        |       | from South      |       |        |       | from West    |       |        |       |       |
|                    | Right           | Thru  | U-Turn | Total | Thru            | Left  | U-Turn | Total | Right        | Left  | U-Turn | Total |       |
| 8:00 AM            | 40              | 0     | 1      | 41    | 0               | 1     | 0      | 1     | 2            | 36    | 0      | 38    | 80    |
| 8:15 AM            | 32              | 1     | 2      | 35    | 2               | 0     | 0      | 2     | 2            | 31    | 1      | 34    | 71    |
| 8:30 AM            | 42              | 1     | 0      | 43    | 2               | 0     | 0      | 2     | 0            | 51    | 0      | 51    | 96    |
| 8:45 AM            | 58              | 1     | 1      | 60    | 9               | 0     | 0      | 9     | 0            | 47    | 2      | 49    | 118   |
| Total Volume       | 172             | 3     | 4      | 179   | 13              | 1     | 0      | 14    | 4            | 165   | 3      | 172   | 365   |
| % Approach Total   | 96.1            | 1.7   | 2.2    |       | 92.9            | 7.1   | 0.0    |       | 2.3          | 95.9  | 1.7    |       |       |
| PHF                | 0.741           | 0.750 | 0.500  | 0.746 | 0.361           | 0.250 | 0.000  | 0.389 | 0.500        | 0.809 | 0.375  | 0.843 | 0.773 |
| Cars               | 166             | 2     | 4      | 172   | 13              | 1     | 0      | 14    | 4            | 163   | 3      | 170   | 356   |
| Cars %             | 96.5            | 66.7  | 100.0  | 96.1  | 100.0           | 100.0 | 0.0    | 100.0 | 100.0        | 98.8  | 100.0  | 98.8  | 97.5  |
| Heavy Vehicles     | 6               | 1     | 0      | 7     | 0               | 0     | 0      | 0     | 0            | 2     | 0      | 2     | 9     |
| Heavy Vehicles %   | 3.5             | 33.3  | 0.0    | 3.9   | 0.0             | 0.0   | 0.0    | 0.0   | 0.0          | 1.2   | 0.0    | 1.2   | 2.5   |
| Cars Enter Leg     | 166             | 2     | 4      | 172   | 13              | 1     | 0      | 14    | 4            | 163   | 3      | 170   | 356   |
| Heavy Enter Leg    | 6               | 1     | 0      | 7     | 0               | 0     | 0      | 0     | 0            | 2     | 0      | 2     | 9     |
| Total Entering Leg | 172             | 3     | 4      | 179   | 13              | 1     | 0      | 14    | 4            | 165   | 3      | 172   | 365   |
| Cars Exiting Leg   |                 |       |        | 180   |                 |       |        | 6     |              |       |        | 170   | 356   |
| Heavy Exiting Leg  |                 |       |        | 2     |                 |       |        | 1     |              |       |        | 6     | 9     |
| Total Exiting Leg  |                 |       |        | 182   |                 |       |        | 7     |              |       |        | 176   | 365   |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Cars**

|                   | Chestnut Street |           |          |            | Chestnut Street |          |          |           | Davis Street |            |          |            | Total      |
|-------------------|-----------------|-----------|----------|------------|-----------------|----------|----------|-----------|--------------|------------|----------|------------|------------|
|                   | from North      |           |          |            | from South      |          |          |           | from West    |            |          |            |            |
|                   | Right           | Thru      | U-Turn   | Total      | Thru            | Left     | U-Turn   | Total     | Right        | Left       | U-Turn   | Total      |            |
| 7:00 AM           | 0               | 11        | 0        | 11         | 26              | 2        | 0        | 28        | 1            | 1          | 0        | 2          | 41         |
| 7:15 AM           | 7               | 15        | 0        | 22         | 7               | 0        | 0        | 7         | 4            | 5          | 0        | 9          | 38         |
| 7:30 AM           | 28              | 1         | 1        | 30         | 0               | 0        | 0        | 0         | 0            | 35         | 1        | 36         | 66         |
| 7:45 AM           | 32              | 0         | 3        | 35         | 0               | 0        | 0        | 0         | 0            | 48         | 0        | 48         | 83         |
| <b>Total</b>      | <b>67</b>       | <b>27</b> | <b>4</b> | <b>98</b>  | <b>33</b>       | <b>2</b> | <b>0</b> | <b>35</b> | <b>5</b>     | <b>89</b>  | <b>1</b> | <b>95</b>  | <b>228</b> |
| 8:00 AM           | 36              | 0         | 1        | 37         | 0               | 1        | 0        | 1         | 2            | 35         | 0        | 37         | 75         |
| 8:15 AM           | 32              | 1         | 2        | 35         | 2               | 0        | 0        | 2         | 2            | 31         | 1        | 34         | 71         |
| 8:30 AM           | 41              | 0         | 0        | 41         | 2               | 0        | 0        | 2         | 0            | 51         | 0        | 51         | 94         |
| 8:45 AM           | 57              | 1         | 1        | 59         | 9               | 0        | 0        | 9         | 0            | 46         | 2        | 48         | 116        |
| <b>Total</b>      | <b>166</b>      | <b>2</b>  | <b>4</b> | <b>172</b> | <b>13</b>       | <b>1</b> | <b>0</b> | <b>14</b> | <b>4</b>     | <b>163</b> | <b>3</b> | <b>170</b> | <b>356</b> |
| Grand Total       | 233             | 29        | 8        | 270        | 46              | 3        | 0        | 49        | 9            | 252        | 4        | 265        | 584        |
| Approach %        | 86.3            | 10.7      | 3.0      |            | 93.9            | 6.1      | 0.0      |           | 3.4          | 95.1       | 1.5      |            |            |
| Total %           | 39.9            | 5.0       | 1.4      | 46.2       | 7.9             | 0.5      | 0.0      | 8.4       | 1.5          | 43.2       | 0.7      | 45.4       |            |
| Exiting Leg Total |                 |           |          | 306        |                 |          |          | 38        |              |            |          | 240        | 584        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Chestnut Street |       |        |            | Chestnut Street |       |        |           | Davis Street |       |        |            | Total      |
|------------------|-----------------|-------|--------|------------|-----------------|-------|--------|-----------|--------------|-------|--------|------------|------------|
|                  | from North      |       |        |            | from South      |       |        |           | from West    |       |        |            |            |
|                  | Right           | Thru  | U-Turn | Total      | Thru            | Left  | U-Turn | Total     | Right        | Left  | U-Turn | Total      |            |
| 8:00 AM          | 36              | 0     | 1      | 37         | 0               | 1     | 0      | 1         | 2            | 35    | 0      | 37         | 75         |
| 8:15 AM          | 32              | 1     | 2      | 35         | 2               | 0     | 0      | 2         | 2            | 31    | 1      | 34         | 71         |
| 8:30 AM          | 41              | 0     | 0      | 41         | 2               | 0     | 0      | 2         | 0            | 51    | 0      | 51         | 94         |
| 8:45 AM          | 57              | 1     | 1      | 59         | 9               | 0     | 0      | 9         | 0            | 46    | 2      | 48         | 116        |
| Total Volume     | 166             | 2     | 4      | 172        | 13              | 1     | 0      | 14        | 4            | 163   | 3      | 170        | 356        |
| % Approach Total | 96.5            | 1.2   | 2.3    |            | 92.9            | 7.1   | 0.0    |           | 2.4          | 95.9  | 1.8    |            |            |
| PHF              | 0.728           | 0.500 | 0.500  | 0.729      | 0.361           | 0.250 | 0.000  | 0.389     | 0.500        | 0.799 | 0.375  | 0.833      | 0.767      |
| Entering Leg     | 166             | 2     | 4      | 172        | 13              | 1     | 0      | 14        | 4            | 163   | 3      | 170        | 356        |
| Exiting Leg      |                 |       |        | 180        |                 |       |        | 6         |              |       |        | 170        | 356        |
| <b>Total</b>     |                 |       |        | <b>352</b> |                 |       |        | <b>20</b> |              |       |        | <b>340</b> | <b>712</b> |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**



Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Chestnut Street |          |          |          | Chestnut Street |          |          |          | Davis Street |          |          |          | Total     |
|--------------------|-----------------|----------|----------|----------|-----------------|----------|----------|----------|--------------|----------|----------|----------|-----------|
|                    | from North      |          |          |          | from South      |          |          |          | from West    |          |          |          |           |
|                    | Right           | Thru     | U-Turn   | Total    | Thru            | Left     | U-Turn   | Total    | Right        | Left     | U-Turn   | Total    |           |
| 7:00 AM            | 0               | 1        | 0        | 1        | 2               | 0        | 0        | 2        | 0            | 0        | 0        | 0        | 3         |
| 7:15 AM            | 0               | 1        | 0        | 1        | 3               | 0        | 0        | 3        | 1            | 0        | 0        | 1        | 5         |
| 7:30 AM            | 1               | 0        | 0        | 1        | 1               | 0        | 0        | 1        | 0            | 0        | 0        | 0        | 2         |
| 7:45 AM            | 2               | 1        | 0        | 3        | 1               | 0        | 0        | 1        | 0            | 0        | 0        | 0        | 4         |
| <b>Total</b>       | <b>3</b>        | <b>3</b> | <b>0</b> | <b>6</b> | <b>7</b>        | <b>0</b> | <b>0</b> | <b>7</b> | <b>1</b>     | <b>0</b> | <b>0</b> | <b>1</b> | <b>14</b> |
| 8:00 AM            | 4               | 0        | 0        | 4        | 0               | 0        | 0        | 0        | 0            | 1        | 0        | 1        | 5         |
| 8:15 AM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0         |
| 8:30 AM            | 1               | 1        | 0        | 2        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 2         |
| 8:45 AM            | 1               | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0            | 1        | 0        | 1        | 2         |
| <b>Total</b>       | <b>6</b>        | <b>1</b> | <b>0</b> | <b>7</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>     | <b>2</b> | <b>0</b> | <b>2</b> | <b>9</b>  |
| Grand Total        | 9               | 4        | 0        | 13       | 7               | 0        | 0        | 7        | 1            | 2        | 0        | 3        | 23        |
| Approach %         | 69.2            | 30.8     | 0.0      |          | 100.0           | 0.0      | 0.0      |          | 33.3         | 66.7     | 0.0      |          |           |
| Total %            | 39.1            | 17.4     | 0.0      | 56.5     | 30.4            | 0.0      | 0.0      | 30.4     | 4.3          | 8.7      | 0.0      | 13.0     |           |
| Exiting Leg Total  |                 |          |          | 9        |                 |          |          | 5        |              |          |          | 9        | 23        |
| Buses              | 2               | 1        | 0        | 3        | 1               | 0        | 0        | 1        | 0            | 0        | 0        | 0        | 4         |
| % Buses            | 22.2            | 25.0     | 0.0      | 23.1     | 14.3            | 0.0      | 0.0      | 14.3     | 0.0          | 0.0      | 0.0      | 0.0      | 17.4      |
| Exiting Leg Total  |                 |          |          | 1        |                 |          |          | 1        |              |          |          | 2        | 4         |
| Single-Unit Trucks | 7               | 3        | 0        | 10       | 6               | 0        | 0        | 6        | 1            | 2        | 0        | 3        | 19        |
| % Single-Unit      | 77.8            | 75.0     | 0.0      | 76.9     | 85.7            | 0.0      | 0.0      | 85.7     | 100.0        | 100.0    | 0.0      | 100.0    | 82.6      |
| Exiting Leg Total  |                 |          |          | 8        |                 |          |          | 4        |              |          |          | 7        | 19        |
| Articulated Trucks | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0         |
| % Articulated      | 0.0             | 0.0      | 0.0      | 0.0      | 0.0             | 0.0      | 0.0      | 0.0      | 0.0          | 0.0      | 0.0      | 0.0      | 0.0       |
| Exiting Leg Total  |                 |          |          | 0        |                 |          |          | 0        |              |          |          | 0        | 0         |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                           | Chestnut Street |          |          |          | Chestnut Street |          |          |          | Davis Street |          |          |          | Total     |
|---------------------------|-----------------|----------|----------|----------|-----------------|----------|----------|----------|--------------|----------|----------|----------|-----------|
|                           | from North      |          |          |          | from South      |          |          |          | from West    |          |          |          |           |
|                           | Right           | Thru     | U-Turn   | Total    | Thru            | Left     | U-Turn   | Total    | Right        | Left     | U-Turn   | Total    |           |
| 7:15 AM                   | 0               | 1        | 0        | 1        | 3               | 0        | 0        | 3        | 1            | 0        | 0        | 1        | 5         |
| 7:30 AM                   | 1               | 0        | 0        | 1        | 1               | 0        | 0        | 1        | 0            | 0        | 0        | 0        | 2         |
| 7:45 AM                   | 2               | 1        | 0        | 3        | 1               | 0        | 0        | 1        | 0            | 0        | 0        | 0        | 4         |
| 8:00 AM                   | 4               | 0        | 0        | 4        | 0               | 0        | 0        | 0        | 0            | 1        | 0        | 1        | 5         |
| <b>Total Volume</b>       | <b>7</b>        | <b>2</b> | <b>0</b> | <b>9</b> | <b>5</b>        | <b>0</b> | <b>0</b> | <b>5</b> | <b>1</b>     | <b>1</b> | <b>0</b> | <b>2</b> | <b>16</b> |
| % Approach Total          | 77.8            | 22.2     | 0.0      |          | 100.0           | 0.0      | 0.0      |          | 50.0         | 50.0     | 0.0      |          |           |
| PHF                       | 0.438           | 0.500    | 0.000    | 0.563    | 0.417           | 0.000    | 0.000    | 0.417    | 0.250        | 0.250    | 0.000    | 0.500    | 0.800     |
| Buses                     | 2               | 0        | 0        | 2        | 1               | 0        | 0        | 1        | 0            | 0        | 0        | 0        | 3         |
| Buses %                   | 28.6            | 0.0      | 0.0      | 22.2     | 20.0            | 0.0      | 0.0      | 20.0     | 0.0          | 0.0      | 0.0      | 0.0      | 18.8      |
| Single-Unit Trucks        | 5               | 2        | 0        | 7        | 4               | 0        | 0        | 4        | 1            | 1        | 0        | 2        | 13        |
| Single-Unit %             | 71.4            | 100.0    | 0.0      | 77.8     | 80.0            | 0.0      | 0.0      | 80.0     | 100.0        | 100.0    | 0.0      | 100.0    | 81.3      |
| Articulated Trucks        | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0         |
| Articulated %             | 0.0             | 0.0      | 0.0      | 0.0      | 0.0             | 0.0      | 0.0      | 0.0      | 0.0          | 0.0      | 0.0      | 0.0      | 0.0       |
| Buses                     | 2               | 0        | 0        | 2        | 1               | 0        | 0        | 1        | 0            | 0        | 0        | 0        | 3         |
| Single-Unit Trucks        | 5               | 2        | 0        | 7        | 4               | 0        | 0        | 4        | 1            | 1        | 0        | 2        | 13        |
| Articulated Trucks        | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0         |
| <b>Total Entering Leg</b> | <b>7</b>        | <b>2</b> | <b>0</b> | <b>9</b> | <b>5</b>        | <b>0</b> | <b>0</b> | <b>5</b> | <b>1</b>     | <b>1</b> | <b>0</b> | <b>2</b> | <b>16</b> |
| Buses                     |                 |          |          | 1        |                 |          |          | 0        |              |          |          | 2        | 3         |
| Single-Unit Trucks        |                 |          |          | 5        |                 |          |          | 3        |              |          |          | 5        | 13        |
| Articulated Trucks        |                 |          |          | 0        |                 |          |          | 0        |              |          |          | 0        | 0         |
| <b>Total Exiting Leg</b>  |                 |          |          | <b>6</b> |                 |          |          | <b>3</b> |              |          |          | <b>7</b> | <b>16</b> |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Buses**

|                    | Chestnut Street |          |          |          | Chestnut Street |          |          |          | Davis Street |          |          |          | Total    |          |
|--------------------|-----------------|----------|----------|----------|-----------------|----------|----------|----------|--------------|----------|----------|----------|----------|----------|
|                    | from North      |          |          |          | from South      |          |          |          | from West    |          |          |          |          |          |
|                    | Right           | Thru     | U-Turn   | Total    | Thru            | Left     | U-Turn   | Total    | Right        | Left     | U-Turn   | Total    |          |          |
| 7:00 AM            | 0               | 1        | 0        | 1        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        | 1        |
| 7:15 AM            | 0               | 0        | 0        | 0        | 1               | 0        | 0        | 1        | 0            | 0        | 0        | 0        | 0        | 1        |
| 7:30 AM            | 1               | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        | 1        |
| 7:45 AM            | 1               | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        | 1        |
| <b>Total</b>       | <b>2</b>        | <b>1</b> | <b>0</b> | <b>3</b> | <b>1</b>        | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>4</b> |
| 8:00 AM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        | 0        |
| 8:15 AM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        | 0        |
| 8:30 AM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        | 0        |
| 8:45 AM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        | 0        |
| <b>Total</b>       | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> |
| <b>Grand Total</b> | <b>2</b>        | <b>1</b> | <b>0</b> | <b>3</b> | <b>1</b>        | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>4</b> |
| Approach %         | 66.7            | 33.3     | 0.0      |          | 100.0           | 0.0      | 0.0      |          | 0.0          | 0.0      | 0.0      |          |          |          |
| Total %            | 50.0            | 25.0     | 0.0      | 75.0     | 25.0            | 0.0      | 0.0      | 25.0     | 0.0          | 0.0      | 0.0      | 0.0      |          |          |
| Exiting Leg Total  |                 |          |          | 1        |                 |          |          | 1        |              |          |          |          | 2        | 4        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Chestnut Street |       |        |          | Chestnut Street |       |        |          | Davis Street |       |        |       | Total    |          |
|------------------|-----------------|-------|--------|----------|-----------------|-------|--------|----------|--------------|-------|--------|-------|----------|----------|
|                  | from North      |       |        |          | from South      |       |        |          | from West    |       |        |       |          |          |
|                  | Right           | Thru  | U-Turn | Total    | Thru            | Left  | U-Turn | Total    | Right        | Left  | U-Turn | Total |          |          |
| 7:00 AM          | 0               | 1     | 0      | 1        | 0               | 0     | 0      | 0        | 0            | 0     | 0      | 0     | 0        | 1        |
| 7:15 AM          | 0               | 0     | 0      | 0        | 1               | 0     | 0      | 1        | 0            | 0     | 0      | 0     | 0        | 1        |
| 7:30 AM          | 1               | 0     | 0      | 1        | 0               | 0     | 0      | 0        | 0            | 0     | 0      | 0     | 0        | 1        |
| 7:45 AM          | 1               | 0     | 0      | 1        | 0               | 0     | 0      | 0        | 0            | 0     | 0      | 0     | 0        | 1        |
| Total Volume     | 2               | 1     | 0      | 3        | 1               | 0     | 0      | 1        | 0            | 0     | 0      | 0     | 0        | 4        |
| % Approach Total | 66.7            | 33.3  | 0.0    |          | 100.0           | 0.0   | 0.0    |          | 0.0          | 0.0   | 0.0    |       |          |          |
| PHF              | 0.500           | 0.250 | 0.000  | 0.750    | 0.250           | 0.000 | 0.000  | 0.250    | 0.000        | 0.000 | 0.000  | 0.000 | 0.000    | 1.000    |
| Entering Leg     | 2               | 1     | 0      | 3        | 1               | 0     | 0      | 1        | 0            | 0     | 0      | 0     | 0        | 4        |
| Exiting Leg      |                 |       |        | 1        |                 |       |        | 1        |              |       |        |       | 2        | 4        |
| <b>Total</b>     |                 |       |        | <b>4</b> |                 |       |        | <b>2</b> |              |       |        |       | <b>2</b> | <b>8</b> |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Single-Unit Trucks**

|                    | Chestnut Street |          |          |           | Chestnut Street |          |          |          | Davis Street |          |          |          | Total     |
|--------------------|-----------------|----------|----------|-----------|-----------------|----------|----------|----------|--------------|----------|----------|----------|-----------|
|                    | from North      |          |          |           | from South      |          |          |          | from West    |          |          |          |           |
|                    | Right           | Thru     | U-Turn   | Total     | Thru            | Left     | U-Turn   | Total    | Right        | Left     | U-Turn   | Total    |           |
| 7:00 AM            | 0               | 0        | 0        | 0         | 2               | 0        | 0        | 2        | 0            | 0        | 0        | 0        | 2         |
| 7:15 AM            | 0               | 1        | 0        | 1         | 2               | 0        | 0        | 2        | 1            | 0        | 0        | 1        | 4         |
| 7:30 AM            | 0               | 0        | 0        | 0         | 1               | 0        | 0        | 1        | 0            | 0        | 0        | 0        | 1         |
| 7:45 AM            | 1               | 1        | 0        | 2         | 1               | 0        | 0        | 1        | 0            | 0        | 0        | 0        | 3         |
| <b>Total</b>       | <b>1</b>        | <b>2</b> | <b>0</b> | <b>3</b>  | <b>6</b>        | <b>0</b> | <b>0</b> | <b>6</b> | <b>1</b>     | <b>0</b> | <b>0</b> | <b>1</b> | <b>10</b> |
| 8:00 AM            | 4               | 0        | 0        | 4         | 0               | 0        | 0        | 0        | 0            | 1        | 0        | 1        | 5         |
| 8:15 AM            | 0               | 0        | 0        | 0         | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0         |
| 8:30 AM            | 1               | 1        | 0        | 2         | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 2         |
| 8:45 AM            | 1               | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0            | 1        | 0        | 1        | 2         |
| <b>Total</b>       | <b>6</b>        | <b>1</b> | <b>0</b> | <b>7</b>  | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>     | <b>2</b> | <b>0</b> | <b>2</b> | <b>9</b>  |
| <b>Grand Total</b> | <b>7</b>        | <b>3</b> | <b>0</b> | <b>10</b> | <b>6</b>        | <b>0</b> | <b>0</b> | <b>6</b> | <b>1</b>     | <b>2</b> | <b>0</b> | <b>3</b> | <b>19</b> |
| Approach %         | 70.0            | 30.0     | 0.0      |           | 100.0           | 0.0      | 0.0      |          | 33.3         | 66.7     | 0.0      |          |           |
| Total %            | 36.8            | 15.8     | 0.0      | 52.6      | 31.6            | 0.0      | 0.0      | 31.6     | 5.3          | 10.5     | 0.0      | 15.8     |           |
| Exiting Leg Total  |                 |          |          | 8         |                 |          |          | 4        |              |          |          | 7        | 19        |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:15 AM          | Chestnut Street |       |        |           | Chestnut Street |       |        |          | Davis Street |       |        |          | Total     |
|------------------|-----------------|-------|--------|-----------|-----------------|-------|--------|----------|--------------|-------|--------|----------|-----------|
|                  | from North      |       |        |           | from South      |       |        |          | from West    |       |        |          |           |
|                  | Right           | Thru  | U-Turn | Total     | Thru            | Left  | U-Turn | Total    | Right        | Left  | U-Turn | Total    |           |
| 7:15 AM          | 0               | 1     | 0      | 1         | 2               | 0     | 0      | 2        | 1            | 0     | 0      | 1        | 4         |
| 7:30 AM          | 0               | 0     | 0      | 0         | 1               | 0     | 0      | 1        | 0            | 0     | 0      | 0        | 1         |
| 7:45 AM          | 1               | 1     | 0      | 2         | 1               | 0     | 0      | 1        | 0            | 0     | 0      | 0        | 3         |
| 8:00 AM          | 4               | 0     | 0      | 4         | 0               | 0     | 0      | 0        | 0            | 1     | 0      | 1        | 5         |
| Total Volume     | 5               | 2     | 0      | 7         | 4               | 0     | 0      | 4        | 1            | 1     | 0      | 2        | 13        |
| % Approach Total | 71.4            | 28.6  | 0.0    |           | 100.0           | 0.0   | 0.0    |          | 50.0         | 50.0  | 0.0    |          |           |
| PHF              | 0.313           | 0.500 | 0.000  | 0.438     | 0.500           | 0.000 | 0.000  | 0.500    | 0.250        | 0.250 | 0.000  | 0.500    | 0.650     |
| Entering Leg     | 5               | 2     | 0      | 7         | 4               | 0     | 0      | 4        | 1            | 1     | 0      | 2        | 13        |
| Exiting Leg      |                 |       |        | 5         |                 |       |        | 3        |              |       |        | 5        | 13        |
| <b>Total</b>     |                 |       |        | <b>12</b> |                 |       |        | <b>7</b> |              |       |        | <b>7</b> | <b>26</b> |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Articulated Trucks**

|                   | Chestnut Street |      |        |       | Chestnut Street |      |        |       | Davis Street |      |        |       | Total |   |
|-------------------|-----------------|------|--------|-------|-----------------|------|--------|-------|--------------|------|--------|-------|-------|---|
|                   | from North      |      |        |       | from South      |      |        |       | from West    |      |        |       |       |   |
|                   | Right           | Thru | U-Turn | Total | Thru            | Left | U-Turn | Total | Right        | Left | U-Turn | Total |       |   |
| 7:00 AM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 7:15 AM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 7:30 AM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 7:45 AM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| Total             | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 8:00 AM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 8:15 AM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 8:30 AM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 8:45 AM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| Total             | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| Grand Total       | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| Approach %        | 0.0             | 0.0  | 0.0    |       | 0.0             | 0.0  | 0.0    |       | 0.0          | 0.0  | 0.0    |       |       |   |
| Total %           | 0.0             | 0.0  | 0.0    | 0.0   | 0.0             | 0.0  | 0.0    | 0.0   | 0.0          | 0.0  | 0.0    | 0.0   |       |   |
| Exiting Leg Total |                 |      |        | 0     |                 |      |        | 0     |              |      |        |       | 0     | 0 |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

|                  | Chestnut Street |       |        |       | Chestnut Street |       |        |       | Davis Street |       |        |       | Total |       |
|------------------|-----------------|-------|--------|-------|-----------------|-------|--------|-------|--------------|-------|--------|-------|-------|-------|
|                  | from North      |       |        |       | from South      |       |        |       | from West    |       |        |       |       |       |
|                  | Right           | Thru  | U-Turn | Total | Thru            | Left  | U-Turn | Total | Right        | Left  | U-Turn | Total |       |       |
| 7:00 AM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| 7:15 AM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| 7:30 AM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| 7:45 AM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| Total Volume     | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| % Approach Total | 0.0             | 0.0   | 0.0    |       | 0.0             | 0.0   | 0.0    |       | 0.0          | 0.0   | 0.0    |       |       |       |
| PHF              | 0.000           | 0.000 | 0.000  | 0.000 | 0.000           | 0.000 | 0.000  | 0.000 | 0.000        | 0.000 | 0.000  | 0.000 |       | 0.000 |
| Entering Leg     | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| Exiting Leg      |                 |       |        | 0     |                 |       |        | 0     |              |       |        |       | 0     | 0     |
| Total            |                 |       |        | 0     |                 |       |        | 0     |              |       |        |       | 0     | 0     |



PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**



**Bicycles (on Roadway and Crosswalks)**

|                   | Chestnut Street |      |        |       |       |       | Chestnut Street |      |        |       |       |       | Davis Street |      |        |       |       |       | Total |
|-------------------|-----------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|--------------|------|--------|-------|-------|-------|-------|
|                   | from North      |      |        |       |       |       | from South      |      |        |       |       |       | from West    |      |        |       |       |       |       |
|                   | Right           | Thru | U-Turn | CW-EB | CW-WB | Total | Thru            | Left | U-Turn | CW-WB | CW-EB | Total | Right        | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 7:00 AM           | 0               | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0            | 0    | 0      | 0     | 0     | 0     | 0     |
| 7:15 AM           | 0               | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0            | 0    | 0      | 0     | 0     | 0     | 0     |
| 7:30 AM           | 0               | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0            | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:45 AM           | 0               | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0            | 0    | 0      | 0     | 0     | 0     | 0     |
| <b>Total</b>      | 0               | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0            | 0    | 0      | 0     | 0     | 0     | 1     |
| 8:00 AM           | 0               | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0            | 0    | 0      | 0     | 0     | 0     | 0     |
| 8:15 AM           | 0               | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0            | 0    | 0      | 0     | 0     | 0     | 0     |
| 8:30 AM           | 0               | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0            | 0    | 0      | 0     | 0     | 0     | 0     |
| 8:45 AM           | 0               | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0            | 0    | 0      | 0     | 0     | 0     | 0     |
| <b>Total</b>      | 0               | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0            | 0    | 0      | 0     | 0     | 0     | 0     |
| Grand Total       | 0               | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0            | 0    | 0      | 0     | 0     | 0     | 1     |
| Approach %        | 0.0             | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0          | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   |       |
| Total %           | 0.0             | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0  | 0.0    | 0.0   | 0.0   | 100.0 | 0.0          | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   |       |
| Exiting Leg Total | 1               |      |        |       |       |       | 0               |      |        |       |       |       | 0            |      |        |       |       |       | 1     |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 7:00 AM                 | Chestnut Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Davis Street |       |        |       |       |       | Total |
|-------------------------|-----------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|--------------|-------|--------|-------|-------|-------|-------|
|                         | from North      |       |        |       |       |       | from South      |       |        |       |       |       | from West    |       |        |       |       |       |       |
|                         | Right           | Thru  | U-Turn | CW-EB | CW-WB | Total | Thru            | Left  | U-Turn | CW-WB | CW-EB | Total | Right        | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 7:00 AM                 | 0               | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0            | 0     | 0      | 0     | 0     | 0     | 0     |
| 7:15 AM                 | 0               | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0            | 0     | 0      | 0     | 0     | 0     | 0     |
| 7:30 AM                 | 0               | 0     | 0      | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 1     | 0            | 0     | 0      | 0     | 0     | 0     | 1     |
| 7:45 AM                 | 0               | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0            | 0     | 0      | 0     | 0     | 0     | 0     |
| <b>Total Volume</b>     | 0               | 0     | 0      | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 1     | 0            | 0     | 0      | 0     | 0     | 0     | 1     |
| <b>% Approach Total</b> | 0.0             | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 100.0           | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0          | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   |       |
| PHF                     | 0.000           | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.250           | 0.000 | 0.000  | 0.000 | 0.000 | 0.250 | 0.000        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 |       |
| Entering Leg            | 0               |       |        |       |       |       | 1               |       |        |       |       |       | 0            |       |        |       |       |       | 1     |
| Exiting Leg             | 1               |       |        |       |       |       | 0               |       |        |       |       |       | 0            |       |        |       |       |       | 1     |
| <b>Total</b>            | 1               |       |        |       |       |       | 1               |       |        |       |       |       | 0            |       |        |       |       |       | 2     |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Pedestrians**

|                          | Chestnut Street |      |        |        |        |        | Chestnut Street |      |        |        |        |        | Davis Street |      |        |        |        |        | Total |
|--------------------------|-----------------|------|--------|--------|--------|--------|-----------------|------|--------|--------|--------|--------|--------------|------|--------|--------|--------|--------|-------|
|                          | from North      |      |        |        |        |        | from South      |      |        |        |        |        | from West    |      |        |        |        |        |       |
|                          | Right           | Thru | U-Turn | CW-EB  | CW-WB  | Total  | Thru            | Left | U-Turn | CW-WB  | CW-EB  | Total  | Right        | Left | U-Turn | CW-NB  | CW-SB  | Total  |       |
| 7:00 AM                  | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0            | 0    | 0      | 0      | 0      | 0      | 0     |
| 7:15 AM                  | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0            | 0    | 0      | 0      | 2      | 2      | 2     |
| 7:30 AM                  | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 1      | 1      | 2      | 0            | 0    | 0      | 1      | 0      | 1      | 3     |
| 7:45 AM                  | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0            | 0    | 0      | 0      | 0      | 0      | 0     |
| <b>Total</b>             | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 1      | 1      | 2      | 0            | 0    | 0      | 1      | 2      | 3      | 5     |
| 8:00 AM                  | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 1      | 1      | 0            | 0    | 0      | 0      | 1      | 1      | 2     |
| 8:15 AM                  | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 1      | 1      | 2      | 0            | 0    | 0      | 0      | 0      | 0      | 2     |
| 8:30 AM                  | 0               | 0    | 0      | 1      | 3      | 4      | 0               | 0    | 0      | 0      | 2      | 2      | 0            | 0    | 0      | 1      | 0      | 1      | 7     |
| 8:45 AM                  | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 1      | 1      | 0            | 0    | 0      | 0      | 0      | 0      | 1     |
| <b>Total</b>             | 0               | 0    | 0      | 1      | 3      | 4      | 0               | 0    | 0      | 1      | 5      | 6      | 0            | 0    | 0      | 1      | 1      | 2      | 12    |
| <b>Grand Total</b>       | 0               | 0    | 0      | 1      | 3      | 4      | 0               | 0    | 0      | 2      | 6      | 8      | 0            | 0    | 0      | 2      | 3      | 5      | 17    |
| <b>Approach %</b>        | 0               | 0    | 0      | 25     | 75     |        | 0               | 0    | 0      | 25     | 75     |        | 0            | 0    | 0      | 40     | 60     |        |       |
| <b>Total %</b>           | 0               | 0    | 0      | 5.8824 | 17.647 | 23.529 | 0               | 0    | 0      | 11.765 | 35.294 | 47.059 | 0            | 0    | 0      | 11.765 | 17.647 | 29.412 |       |
| <b>Exiting Leg Total</b> | 4               |      |        |        |        |        | 8               |      |        |        |        |        | 5            |      |        |        |        |        | 17    |

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

| 8:00 AM                 | Chestnut Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Davis Street |       |        |       |       |       | Total |
|-------------------------|-----------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|--------------|-------|--------|-------|-------|-------|-------|
|                         | from North      |       |        |       |       |       | from South      |       |        |       |       |       | from West    |       |        |       |       |       |       |
|                         | Right           | Thru  | U-Turn | CW-EB | CW-WB | Total | Thru            | Left  | U-Turn | CW-WB | CW-EB | Total | Right        | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 8:00 AM                 | 0               | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 1     | 1     | 0            | 0     | 0      | 0     | 1     | 1     | 2     |
| 8:15 AM                 | 0               | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 1     | 1     | 2     | 0            | 0     | 0      | 0     | 0     | 0     | 2     |
| 8:30 AM                 | 0               | 0     | 0      | 1     | 3     | 4     | 0               | 0     | 0      | 0     | 2     | 2     | 0            | 0     | 0      | 1     | 0     | 1     | 7     |
| 8:45 AM                 | 0               | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 1     | 1     | 0            | 0     | 0      | 0     | 0     | 0     | 1     |
| <b>Total Volume</b>     | 0               | 0     | 0      | 1     | 3     | 4     | 0               | 0     | 0      | 1     | 5     | 6     | 0            | 0     | 0      | 1     | 1     | 2     | 12    |
| <b>% Approach Total</b> | 0.0             | 0.0   | 0.0    | 25.0  | 75.0  |       | 0.0             | 0.0   | 0.0    | 16.7  | 83.3  |       | 0.0          | 0.0   | 0.0    | 50.0  | 50.0  |       |       |
| <b>PHF</b>              | 0.000           | 0.000 | 0.000  | 0.250 | 0.250 | 0.250 | 0.000           | 0.000 | 0.000  | 0.250 | 0.625 | 0.750 | 0.000        | 0.000 | 0.000  | 0.250 | 0.250 | 0.500 | 0.429 |
| <b>Entering Leg</b>     | 0               | 0     | 0      | 1     | 3     | 4     | 0               | 0     | 0      | 1     | 5     | 6     | 0            | 0     | 0      | 1     | 1     | 2     | 12    |
| <b>Exiting Leg</b>      | 4               |       |        |       |       |       | 6               |       |        |       |       |       | 2            |       |        |       |       |       | 12    |
| <b>Total</b>            | 8               |       |        |       |       |       | 12              |       |        |       |       |       | 4            |       |        |       |       |       | 24    |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Chestnut Street |           |          |            | Chestnut Street |          |          |           | Davis Street |           |          |           | Total      |
|-------------------|-----------------|-----------|----------|------------|-----------------|----------|----------|-----------|--------------|-----------|----------|-----------|------------|
|                   | from North      |           |          |            | from South      |          |          |           | from West    |           |          |           |            |
|                   | Right           | Thru      | U-Turn   | Total      | Thru            | Left     | U-Turn   | Total     | Right        | Left      | U-Turn   | Total     |            |
| 4:00 PM           | 33              | 1         | 1        | 35         | 2               | 0        | 0        | 2         | 0            | 18        | 0        | 18        | 55         |
| 4:15 PM           | 48              | 0         | 1        | 49         | 2               | 0        | 0        | 2         | 0            | 23        | 1        | 24        | 75         |
| 4:30 PM           | 31              | 0         | 1        | 32         | 1               | 0        | 0        | 1         | 0            | 15        | 2        | 17        | 50         |
| 4:45 PM           | 39              | 2         | 0        | 41         | 3               | 2        | 0        | 5         | 1            | 22        | 0        | 23        | 69         |
| <b>Total</b>      | <b>151</b>      | <b>3</b>  | <b>3</b> | <b>157</b> | <b>8</b>        | <b>2</b> | <b>0</b> | <b>10</b> | <b>1</b>     | <b>78</b> | <b>3</b> | <b>82</b> | <b>249</b> |
| 5:00 PM           | 40              | 6         | 1        | 47         | 6               | 1        | 0        | 7         | 2            | 15        | 0        | 17        | 71         |
| 5:15 PM           | 45              | 4         | 0        | 49         | 4               | 3        | 0        | 7         | 0            | 9         | 0        | 9         | 65         |
| 5:30 PM           | 46              | 1         | 3        | 50         | 2               | 0        | 0        | 2         | 0            | 20        | 1        | 21        | 73         |
| 5:45 PM           | 35              | 1         | 0        | 36         | 0               | 1        | 0        | 1         | 0            | 18        | 0        | 18        | 55         |
| <b>Total</b>      | <b>166</b>      | <b>12</b> | <b>4</b> | <b>182</b> | <b>12</b>       | <b>5</b> | <b>0</b> | <b>17</b> | <b>2</b>     | <b>62</b> | <b>1</b> | <b>65</b> | <b>264</b> |
| Grand Total       | 317             | 15        | 7        | 339        | 20              | 7        | 0        | 27        | 3            | 140       | 4        | 147       | 513        |
| Approach %        | 93.5            | 4.4       | 2.1      |            | 74.1            | 25.9     | 0.0      |           | 2.0          | 95.2      | 2.7      |           |            |
| Total %           | 61.8            | 2.9       | 1.4      | 66.1       | 3.9             | 1.4      | 0.0      | 5.3       | 0.6          | 27.3      | 0.8      | 28.7      |            |
| Exiting Leg Total |                 |           |          | 167        |                 |          |          | 18        |              |           |          | 328       | 513        |
| Cars              | 312             | 14        | 7        | 333        | 18              | 6        | 0        | 24        | 3            | 137       | 4        | 144       | 501        |
| % Cars            | 98.4            | 93.3      | 100.0    | 98.2       | 90.0            | 85.7     | 0.0      | 88.9      | 100.0        | 97.9      | 100.0    | 98.0      | 97.7       |
| Exiting Leg Total |                 |           |          | 162        |                 |          |          | 17        |              |           |          | 322       | 501        |
| Heavy Vehicles    | 5               | 1         | 0        | 6          | 2               | 1        | 0        | 3         | 0            | 3         | 0        | 3         | 12         |
| % Heavy Vehicles  | 1.6             | 6.7       | 0.0      | 1.8        | 10.0            | 14.3     | 0.0      | 11.1      | 0.0          | 2.1       | 0.0      | 2.0       | 2.3        |
| Exiting Leg Total |                 |           |          | 5          |                 |          |          | 1         |              |           |          | 6         | 12         |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:45 PM            | Chestnut Street |       |        |       | Chestnut Street |       |        |       | Davis Street |       |        |       | Total |
|--------------------|-----------------|-------|--------|-------|-----------------|-------|--------|-------|--------------|-------|--------|-------|-------|
|                    | from North      |       |        |       | from South      |       |        |       | from West    |       |        |       |       |
|                    | Right           | Thru  | U-Turn | Total | Thru            | Left  | U-Turn | Total | Right        | Left  | U-Turn | Total |       |
| 4:45 PM            | 39              | 2     | 0      | 41    | 3               | 2     | 0      | 5     | 1            | 22    | 0      | 23    | 69    |
| 5:00 PM            | 40              | 6     | 1      | 47    | 6               | 1     | 0      | 7     | 2            | 15    | 0      | 17    | 71    |
| 5:15 PM            | 45              | 4     | 0      | 49    | 4               | 3     | 0      | 7     | 0            | 9     | 0      | 9     | 65    |
| 5:30 PM            | 46              | 1     | 3      | 50    | 2               | 0     | 0      | 2     | 0            | 20    | 1      | 21    | 73    |
| Total Volume       | 170             | 13    | 4      | 187   | 15              | 6     | 0      | 21    | 3            | 66    | 1      | 70    | 278   |
| % Approach Total   | 90.9            | 7.0   | 2.1    |       | 71.4            | 28.6  | 0.0    |       | 4.3          | 94.3  | 1.4    |       |       |
| PHF                | 0.924           | 0.542 | 0.333  | 0.935 | 0.625           | 0.500 | 0.000  | 0.750 | 0.375        | 0.750 | 0.250  | 0.761 | 0.952 |
| Cars               | 166             | 13    | 4      | 183   | 13              | 5     | 0      | 18    | 3            | 65    | 1      | 69    | 270   |
| Cars %             | 97.6            | 100.0 | 100.0  | 97.9  | 86.7            | 83.3  | 0.0    | 85.7  | 100.0        | 98.5  | 100.0  | 98.6  | 97.1  |
| Heavy Vehicles     | 4               | 0     | 0      | 4     | 2               | 1     | 0      | 3     | 0            | 1     | 0      | 1     | 8     |
| Heavy Vehicles %   | 2.4             | 0.0   | 0.0    | 2.1   | 13.3            | 16.7  | 0.0    | 14.3  | 0.0          | 1.5   | 0.0    | 1.4   | 2.9   |
| Cars Enter Leg     | 166             | 13    | 4      | 183   | 13              | 5     | 0      | 18    | 3            | 65    | 1      | 69    | 270   |
| Heavy Enter Leg    | 4               | 0     | 0      | 4     | 2               | 1     | 0      | 3     | 0            | 1     | 0      | 1     | 8     |
| Total Entering Leg | 170             | 13    | 4      | 187   | 15              | 6     | 0      | 21    | 3            | 66    | 1      | 70    | 278   |
| Cars Exiting Leg   |                 |       |        | 82    |                 |       |        | 16    |              |       |        | 172   | 270   |
| Heavy Exiting Leg  |                 |       |        | 3     |                 |       |        | 0     |              |       |        | 5     | 8     |
| Total Exiting Leg  |                 |       |        | 85    |                 |       |        | 16    |              |       |        | 177   | 278   |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**



**Cars**

|                   | Chestnut Street |           |          |            | Chestnut Street |          |          |           | Davis Street |           |          |           | Total      |
|-------------------|-----------------|-----------|----------|------------|-----------------|----------|----------|-----------|--------------|-----------|----------|-----------|------------|
|                   | from North      |           |          |            | from South      |          |          |           | from West    |           |          |           |            |
|                   | Right           | Thru      | U-Turn   | Total      | Thru            | Left     | U-Turn   | Total     | Right        | Left      | U-Turn   | Total     |            |
| 4:00 PM           | 33              | 0         | 1        | 34         | 2               | 0        | 0        | 2         | 0            | 16        | 0        | 16        | 52         |
| 4:15 PM           | 48              | 0         | 1        | 49         | 2               | 0        | 0        | 2         | 0            | 23        | 1        | 24        | 75         |
| 4:30 PM           | 31              | 0         | 1        | 32         | 1               | 0        | 0        | 1         | 0            | 15        | 2        | 17        | 50         |
| 4:45 PM           | 37              | 2         | 0        | 39         | 3               | 2        | 0        | 5         | 1            | 22        | 0        | 23        | 67         |
| <b>Total</b>      | <b>149</b>      | <b>2</b>  | <b>3</b> | <b>154</b> | <b>8</b>        | <b>2</b> | <b>0</b> | <b>10</b> | <b>1</b>     | <b>76</b> | <b>3</b> | <b>80</b> | <b>244</b> |
| 5:00 PM           | 40              | 6         | 1        | 47         | 4               | 0        | 0        | 4         | 2            | 14        | 0        | 16        | 67         |
| 5:15 PM           | 45              | 4         | 0        | 49         | 4               | 3        | 0        | 7         | 0            | 9         | 0        | 9         | 65         |
| 5:30 PM           | 44              | 1         | 3        | 48         | 2               | 0        | 0        | 2         | 0            | 20        | 1        | 21        | 71         |
| 5:45 PM           | 34              | 1         | 0        | 35         | 0               | 1        | 0        | 1         | 0            | 18        | 0        | 18        | 54         |
| <b>Total</b>      | <b>163</b>      | <b>12</b> | <b>4</b> | <b>179</b> | <b>10</b>       | <b>4</b> | <b>0</b> | <b>14</b> | <b>2</b>     | <b>61</b> | <b>1</b> | <b>64</b> | <b>257</b> |
| Grand Total       | 312             | 14        | 7        | 333        | 18              | 6        | 0        | 24        | 3            | 137       | 4        | 144       | 501        |
| Approach %        | 93.7            | 4.2       | 2.1      |            | 75.0            | 25.0     | 0.0      |           | 2.1          | 95.1      | 2.8      |           |            |
| Total %           | 62.3            | 2.8       | 1.4      | 66.5       | 3.6             | 1.2      | 0.0      | 4.8       | 0.6          | 27.3      | 0.8      | 28.7      |            |
| Exiting Leg Total |                 |           |          | 162        |                 |          |          | 17        |              |           |          | 322       | 501        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                  | Chestnut Street |       |        |            | Chestnut Street |       |        |           | Davis Street |       |        |            | Total      |
|------------------|-----------------|-------|--------|------------|-----------------|-------|--------|-----------|--------------|-------|--------|------------|------------|
|                  | from North      |       |        |            | from South      |       |        |           | from West    |       |        |            |            |
|                  | Right           | Thru  | U-Turn | Total      | Thru            | Left  | U-Turn | Total     | Right        | Left  | U-Turn | Total      |            |
| 4:45 PM          | 37              | 2     | 0      | 39         | 3               | 2     | 0      | 5         | 1            | 22    | 0      | 23         | 67         |
| 5:00 PM          | 40              | 6     | 1      | 47         | 4               | 0     | 0      | 4         | 2            | 14    | 0      | 16         | 67         |
| 5:15 PM          | 45              | 4     | 0      | 49         | 4               | 3     | 0      | 7         | 0            | 9     | 0      | 9          | 65         |
| 5:30 PM          | 44              | 1     | 3      | 48         | 2               | 0     | 0      | 2         | 0            | 20    | 1      | 21         | 71         |
| Total Volume     | 166             | 13    | 4      | 183        | 13              | 5     | 0      | 18        | 3            | 65    | 1      | 69         | 270        |
| % Approach Total | 90.7            | 7.1   | 2.2    |            | 72.2            | 27.8  | 0.0    |           | 4.3          | 94.2  | 1.4    |            |            |
| PHF              | 0.922           | 0.542 | 0.333  | 0.934      | 0.813           | 0.417 | 0.000  | 0.643     | 0.375        | 0.739 | 0.250  | 0.750      | 0.951      |
| Entering Leg     | 166             | 13    | 4      | 183        | 13              | 5     | 0      | 18        | 3            | 65    | 1      | 69         | 270        |
| Exiting Leg      |                 |       |        | 82         |                 |       |        | 16        |              |       |        | 172        | 270        |
| <b>Total</b>     |                 |       |        | <b>265</b> |                 |       |        | <b>34</b> |              |       |        | <b>241</b> | <b>540</b> |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Chestnut Street |          |          |          | Chestnut Street |          |          |          | Davis Street |          |          |          | Total    |
|--------------------|-----------------|----------|----------|----------|-----------------|----------|----------|----------|--------------|----------|----------|----------|----------|
|                    | from North      |          |          |          | from South      |          |          |          | from West    |          |          |          |          |
|                    | Right           | Thru     | U-Turn   | Total    | Thru            | Left     | U-Turn   | Total    | Right        | Left     | U-Turn   | Total    |          |
| 4:00 PM            | 0               | 1        | 0        | 1        | 0               | 0        | 0        | 0        | 0            | 2        | 0        | 2        | 3        |
| 4:15 PM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        |
| 4:30 PM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        |
| 4:45 PM            | 2               | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 2        |
| <b>Total</b>       | <b>2</b>        | <b>1</b> | <b>0</b> | <b>3</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>     | <b>2</b> | <b>0</b> | <b>2</b> | <b>5</b> |
| 5:00 PM            | 0               | 0        | 0        | 0        | 2               | 1        | 0        | 3        | 0            | 1        | 0        | 1        | 4        |
| 5:15 PM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        |
| 5:30 PM            | 2               | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 2        |
| 5:45 PM            | 1               | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 1        |
| <b>Total</b>       | <b>3</b>        | <b>0</b> | <b>0</b> | <b>3</b> | <b>2</b>        | <b>1</b> | <b>0</b> | <b>3</b> | <b>0</b>     | <b>1</b> | <b>0</b> | <b>1</b> | <b>7</b> |
| Grand Total        | 5               | 1        | 0        | 6        | 2               | 1        | 0        | 3        | 0            | 3        | 0        | 3        | 12       |
| Approach %         | 83.3            | 16.7     | 0.0      |          | 66.7            | 33.3     | 0.0      |          | 0.0          | 100.0    | 0.0      |          |          |
| Total %            | 41.7            | 8.3      | 0.0      | 50.0     | 16.7            | 8.3      | 0.0      | 25.0     | 0.0          | 25.0     | 0.0      | 25.0     |          |
| Exiting Leg Total  |                 |          |          | 5        |                 |          |          | 1        |              |          |          | 6        | 12       |
| Buses              | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        |
| % Buses            | 0.0             | 0.0      | 0.0      | 0.0      | 0.0             | 0.0      | 0.0      | 0.0      | 0.0          | 0.0      | 0.0      | 0.0      | 0.0      |
| Exiting Leg Total  |                 |          |          | 0        |                 |          |          | 0        |              |          |          | 0        | 0        |
| Single-Unit Trucks | 5               | 1        | 0        | 6        | 2               | 1        | 0        | 3        | 0            | 3        | 0        | 3        | 12       |
| % Single-Unit      | 100.0           | 100.0    | 0.0      | 100.0    | 100.0           | 100.0    | 0.0      | 100.0    | 0.0          | 100.0    | 0.0      | 100.0    | 100.0    |
| Exiting Leg Total  |                 |          |          | 5        |                 |          |          | 1        |              |          |          | 6        | 12       |
| Articulated Trucks | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0        |
| % Articulated      | 0.0             | 0.0      | 0.0      | 0.0      | 0.0             | 0.0      | 0.0      | 0.0      | 0.0          | 0.0      | 0.0      | 0.0      | 0.0      |
| Exiting Leg Total  |                 |          |          | 0        |                 |          |          | 0        |              |          |          | 0        | 0        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

|                    | Chestnut Street |       |        |       | Chestnut Street |       |        |       | Davis Street |       |        |       | Total |
|--------------------|-----------------|-------|--------|-------|-----------------|-------|--------|-------|--------------|-------|--------|-------|-------|
|                    | from North      |       |        |       | from South      |       |        |       | from West    |       |        |       |       |
|                    | Right           | Thru  | U-Turn | Total | Thru            | Left  | U-Turn | Total | Right        | Left  | U-Turn | Total |       |
| 4:45 PM            |                 |       |        |       |                 |       |        |       |              |       |        |       |       |
| 4:45 PM            | 2               | 0     | 0      | 2     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 2     |
| 5:00 PM            | 0               | 0     | 0      | 0     | 2               | 1     | 0      | 3     | 0            | 1     | 0      | 1     | 4     |
| 5:15 PM            | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| 5:30 PM            | 2               | 0     | 0      | 2     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 2     |
| Total Volume       | 4               | 0     | 0      | 4     | 2               | 1     | 0      | 3     | 0            | 1     | 0      | 1     | 8     |
| % Approach Total   | 100.0           | 0.0   | 0.0    |       | 66.7            | 33.3  | 0.0    |       | 0.0          | 100.0 | 0.0    |       |       |
| PHF                | 0.500           | 0.000 | 0.000  | 0.500 | 0.250           | 0.250 | 0.000  | 0.250 | 0.000        | 0.250 | 0.000  | 0.250 | 0.500 |
| Buses              | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| Buses %            | 0.0             | 0.0   | 0.0    | 0.0   | 0.0             | 0.0   | 0.0    | 0.0   | 0.0          | 0.0   | 0.0    | 0.0   | 0.0   |
| Single-Unit Trucks | 4               | 0     | 0      | 4     | 2               | 1     | 0      | 3     | 0            | 1     | 0      | 1     | 8     |
| Single-Unit %      | 100.0           | 0.0   | 0.0    | 100.0 | 100.0           | 100.0 | 0.0    | 100.0 | 0.0          | 100.0 | 0.0    | 100.0 | 100.0 |
| Articulated Trucks | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| Articulated %      | 0.0             | 0.0   | 0.0    | 0.0   | 0.0             | 0.0   | 0.0    | 0.0   | 0.0          | 0.0   | 0.0    | 0.0   | 0.0   |
| Buses              | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| Single-Unit Trucks | 4               | 0     | 0      | 4     | 2               | 1     | 0      | 3     | 0            | 1     | 0      | 1     | 8     |
| Articulated Trucks | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| Total Entering Leg | 4               | 0     | 0      | 4     | 2               | 1     | 0      | 3     | 0            | 1     | 0      | 1     | 8     |
| Buses              |                 |       |        | 0     |                 |       |        | 0     |              |       |        | 0     | 0     |
| Single-Unit Trucks |                 |       |        | 3     |                 |       |        | 0     |              |       |        | 5     | 8     |
| Articulated Trucks |                 |       |        | 0     |                 |       |        | 0     |              |       |        | 0     | 0     |
| Total Exiting Leg  |                 |       |        | 3     |                 |       |        | 0     |              |       |        | 5     | 8     |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Buses**

|                   | Chestnut Street |      |        |       | Chestnut Street |      |        |       | Davis Street |      |        |       | Total |   |
|-------------------|-----------------|------|--------|-------|-----------------|------|--------|-------|--------------|------|--------|-------|-------|---|
|                   | from North      |      |        |       | from South      |      |        |       | from West    |      |        |       |       |   |
|                   | Right           | Thru | U-Turn | Total | Thru            | Left | U-Turn | Total | Right        | Left | U-Turn | Total |       |   |
| 4:00 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 4:15 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 4:30 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 4:45 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| <b>Total</b>      | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 5:00 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 5:15 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 5:30 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| 5:45 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| <b>Total</b>      | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| Grand Total       | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     | 0 |
| Approach %        | 0.0             | 0.0  | 0.0    |       | 0.0             | 0.0  | 0.0    |       | 0.0          | 0.0  | 0.0    |       |       |   |
| Total %           | 0.0             | 0.0  | 0.0    | 0.0   | 0.0             | 0.0  | 0.0    | 0.0   | 0.0          | 0.0  | 0.0    | 0.0   |       |   |
| Exiting Leg Total |                 |      |        | 0     |                 |      |        | 0     |              |      |        |       | 0     | 0 |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM          | Chestnut Street |       |        |       | Chestnut Street |       |        |       | Davis Street |       |        |       | Total |       |
|------------------|-----------------|-------|--------|-------|-----------------|-------|--------|-------|--------------|-------|--------|-------|-------|-------|
|                  | from North      |       |        |       | from South      |       |        |       | from West    |       |        |       |       |       |
|                  | Right           | Thru  | U-Turn | Total | Thru            | Left  | U-Turn | Total | Right        | Left  | U-Turn | Total |       |       |
| 4:00 PM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| 4:15 PM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| 4:30 PM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| 4:45 PM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| Total Volume     | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| % Approach Total | 0.0             | 0.0   | 0.0    |       | 0.0             | 0.0   | 0.0    |       | 0.0          | 0.0   | 0.0    |       |       |       |
| PHF              | 0.000           | 0.000 | 0.000  | 0.000 | 0.000           | 0.000 | 0.000  | 0.000 | 0.000        | 0.000 | 0.000  | 0.000 |       | 0.000 |
| Entering Leg     | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     | 0     |
| Exiting Leg      |                 |       |        | 0     |                 |       |        | 0     |              |       |        |       | 0     | 0     |
| Total            |                 |       |        | 0     |                 |       |        | 0     |              |       |        |       | 0     | 0     |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Single-Unit Trucks**

|                    | Chestnut Street |          |          |          | Chestnut Street |          |          |          | Davis Street |          |          |          | Total     |
|--------------------|-----------------|----------|----------|----------|-----------------|----------|----------|----------|--------------|----------|----------|----------|-----------|
|                    | from North      |          |          |          | from South      |          |          |          | from West    |          |          |          |           |
|                    | Right           | Thru     | U-Turn   | Total    | Thru            | Left     | U-Turn   | Total    | Right        | Left     | U-Turn   | Total    |           |
| 4:00 PM            | 0               | 1        | 0        | 1        | 0               | 0        | 0        | 0        | 0            | 2        | 0        | 2        | 3         |
| 4:15 PM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0         |
| 4:30 PM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0         |
| 4:45 PM            | 2               | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 2         |
| <b>Total</b>       | <b>2</b>        | <b>1</b> | <b>0</b> | <b>3</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>     | <b>2</b> | <b>0</b> | <b>2</b> | <b>5</b>  |
| 5:00 PM            | 0               | 0        | 0        | 0        | 2               | 1        | 0        | 3        | 0            | 1        | 0        | 1        | 4         |
| 5:15 PM            | 0               | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 0         |
| 5:30 PM            | 2               | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 2         |
| 5:45 PM            | 1               | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0            | 0        | 0        | 0        | 1         |
| <b>Total</b>       | <b>3</b>        | <b>0</b> | <b>0</b> | <b>3</b> | <b>2</b>        | <b>1</b> | <b>0</b> | <b>3</b> | <b>0</b>     | <b>1</b> | <b>0</b> | <b>1</b> | <b>7</b>  |
| <b>Grand Total</b> | <b>5</b>        | <b>1</b> | <b>0</b> | <b>6</b> | <b>2</b>        | <b>1</b> | <b>0</b> | <b>3</b> | <b>0</b>     | <b>3</b> | <b>0</b> | <b>3</b> | <b>12</b> |
| Approach %         | 83.3            | 16.7     | 0.0      |          | 66.7            | 33.3     | 0.0      |          | 0.0          | 100.0    | 0.0      |          |           |
| Total %            | 41.7            | 8.3      | 0.0      | 50.0     | 16.7            | 8.3      | 0.0      | 25.0     | 0.0          | 25.0     | 0.0      | 25.0     |           |
| Exiting Leg Total  |                 |          |          | 5        |                 |          |          | 1        |              |          |          | 6        | 12        |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:45 PM                 | Chestnut Street |            |            |          | Chestnut Street |             |            |          | Davis Street |              |            |          | Total     |
|-------------------------|-----------------|------------|------------|----------|-----------------|-------------|------------|----------|--------------|--------------|------------|----------|-----------|
|                         | from North      |            |            |          | from South      |             |            |          | from West    |              |            |          |           |
|                         | Right           | Thru       | U-Turn     | Total    | Thru            | Left        | U-Turn     | Total    | Right        | Left         | U-Turn     | Total    |           |
| 4:45 PM                 | 2               | 0          | 0          | 2        | 0               | 0           | 0          | 0        | 0            | 0            | 0          | 0        | 2         |
| 5:00 PM                 | 0               | 0          | 0          | 0        | 2               | 1           | 0          | 3        | 0            | 1            | 0          | 1        | 4         |
| 5:15 PM                 | 0               | 0          | 0          | 0        | 0               | 0           | 0          | 0        | 0            | 0            | 0          | 0        | 0         |
| 5:30 PM                 | 2               | 0          | 0          | 2        | 0               | 0           | 0          | 0        | 0            | 0            | 0          | 0        | 2         |
| <b>Total Volume</b>     | <b>4</b>        | <b>0</b>   | <b>0</b>   | <b>4</b> | <b>2</b>        | <b>1</b>    | <b>0</b>   | <b>3</b> | <b>0</b>     | <b>1</b>     | <b>0</b>   | <b>1</b> | <b>8</b>  |
| <b>% Approach Total</b> | <b>100.0</b>    | <b>0.0</b> | <b>0.0</b> |          | <b>66.7</b>     | <b>33.3</b> | <b>0.0</b> |          | <b>0.0</b>   | <b>100.0</b> | <b>0.0</b> |          |           |
| PHF                     | 0.500           | 0.000      | 0.000      | 0.500    | 0.250           | 0.250       | 0.000      | 0.250    | 0.000        | 0.250        | 0.000      | 0.250    | 0.500     |
| Entering Leg            | 4               | 0          | 0          | 4        | 2               | 1           | 0          | 3        | 0            | 1            | 0          | 1        | 8         |
| Exiting Leg             |                 |            |            | 3        |                 |             |            | 0        |              |              |            | 5        | 8         |
| <b>Total</b>            |                 |            |            | <b>7</b> |                 |             |            | <b>3</b> |              |              |            | <b>6</b> | <b>16</b> |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Articulated Trucks**

|                   | Chestnut Street |      |        |       | Chestnut Street |      |        |       | Davis Street |      |        |       | Total |
|-------------------|-----------------|------|--------|-------|-----------------|------|--------|-------|--------------|------|--------|-------|-------|
|                   | from North      |      |        |       | from South      |      |        |       | from West    |      |        |       |       |
|                   | Right           | Thru | U-Turn | Total | Thru            | Left | U-Turn | Total | Right        | Left | U-Turn | Total |       |
| 4:00 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| 4:15 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| 4:30 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| 4:45 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| <b>Total</b>      | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| 5:00 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| 5:15 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| 5:30 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| 5:45 PM           | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| <b>Total</b>      | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| Grand Total       | 0               | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0            | 0    | 0      | 0     | 0     |
| Approach %        | 0.0             | 0.0  | 0.0    |       | 0.0             | 0.0  | 0.0    |       | 0.0          | 0.0  | 0.0    |       |       |
| Total %           | 0.0             | 0.0  | 0.0    | 0.0   | 0.0             | 0.0  | 0.0    | 0.0   | 0.0          | 0.0  | 0.0    | 0.0   |       |
| Exiting Leg Total | 0               |      |        |       | 0               |      |        |       | 0            |      |        |       | 0     |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM          | Chestnut Street |       |        |       | Chestnut Street |       |        |       | Davis Street |       |        |       | Total |
|------------------|-----------------|-------|--------|-------|-----------------|-------|--------|-------|--------------|-------|--------|-------|-------|
|                  | from North      |       |        |       | from South      |       |        |       | from West    |       |        |       |       |
|                  | Right           | Thru  | U-Turn | Total | Thru            | Left  | U-Turn | Total | Right        | Left  | U-Turn | Total |       |
| 4:00 PM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| 4:15 PM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| 4:30 PM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| 4:45 PM          | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| Total Volume     | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| % Approach Total | 0.0             | 0.0   | 0.0    |       | 0.0             | 0.0   | 0.0    |       | 0.0          | 0.0   | 0.0    |       |       |
| PHF              | 0.000           | 0.000 | 0.000  | 0.000 | 0.000           | 0.000 | 0.000  | 0.000 | 0.000        | 0.000 | 0.000  | 0.000 | 0.000 |
| Entering Leg     | 0               | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0            | 0     | 0      | 0     | 0     |
| Exiting Leg      | 0               |       |        |       | 0               |       |        |       | 0            |       |        |       | 0     |
| Total            | 0               |       |        |       | 0               |       |        |       | 0            |       |        |       | 0     |



PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
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 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**



**Bicycles (on Roadway and Crosswalks)**

|                   | Chestnut Street |      |        |       |       |       |     | Chestnut Street |      |        |       |       |       |       | Davis Street |        |       |       |       |     |       | Total |
|-------------------|-----------------|------|--------|-------|-------|-------|-----|-----------------|------|--------|-------|-------|-------|-------|--------------|--------|-------|-------|-------|-----|-------|-------|
|                   | from North      |      |        |       |       |       |     | from South      |      |        |       |       |       |       | from West    |        |       |       |       |     |       |       |
|                   | Right           | Thru | U-Turn | CW-EB | CW-WB | Total |     | Thru            | Left | U-Turn | CW-WB | CW-EB | Total | Right | Left         | U-Turn | CW-NB | CW-SB | Total |     |       |       |
| 4:00 PM           | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0   | 0     |       |
| 4:15 PM           | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 1      | 0     | 0     | 0     | 0   | 1     |       |
| 4:30 PM           | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0   | 0     |       |
| 4:45 PM           | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0   | 0     |       |
| <b>Total</b>      | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 1      | 0     | 0     | 0     | 0   | 1     |       |
| 5:00 PM           | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0   | 0     |       |
| 5:15 PM           | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0   | 0     |       |
| 5:30 PM           | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0   | 0     |       |
| 5:45 PM           | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0   | 0     |       |
| <b>Total</b>      | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0   | 0     |       |
| Grand Total       | 0               | 0    | 0      | 0     | 0     | 0     | 0   | 0               | 0    | 0      | 0     | 0     | 0     | 0     | 0            | 1      | 0     | 0     | 0     | 0   | 1     |       |
| Approach %        | 0.0             | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0 | 0.0             | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0          | 100.0  | 0.0   | 0.0   | 0.0   | 0.0 | 0.0   |       |
| Total %           | 0.0             | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0 | 0.0             | 0.0  | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0          | 100.0  | 0.0   | 0.0   | 0.0   | 0.0 | 100.0 |       |
| Exiting Leg Total | 1               |      |        |       |       |       |     | 0               |      |        |       |       |       |       | 0            |        |       |       |       |     |       | 1     |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM                 | Chestnut Street |       |        |       |       |       |       | Chestnut Street |       |        |       |       |       |       | Davis Street |        |       |       |       |       |       | Total |
|-------------------------|-----------------|-------|--------|-------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|-------|--------------|--------|-------|-------|-------|-------|-------|-------|
|                         | from North      |       |        |       |       |       |       | from South      |       |        |       |       |       |       | from West    |        |       |       |       |       |       |       |
|                         | Right           | Thru  | U-Turn | CW-EB | CW-WB | Total |       | Thru            | Left  | U-Turn | CW-WB | CW-EB | Total | Right | Left         | U-Turn | CW-NB | CW-SB | Total |       |       |       |
| 4:00 PM                 | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0     | 0     |       |
| 4:15 PM                 | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 1      | 0     | 0     | 0     | 0     | 1     |       |
| 4:30 PM                 | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0     | 0     |       |
| 4:45 PM                 | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 0      | 0     | 0     | 0     | 0     | 0     |       |
| <b>Total Volume</b>     | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 1      | 0     | 0     | 0     | 0     | 1     |       |
| <b>% Approach Total</b> | 0.0             | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0             | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0          | 100.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |       |
| PHF                     | 0.000           | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000           | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000        | 0.250  | 0.000 | 0.000 | 0.000 | 0.250 | 0.250 |       |
| Entering Leg            | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0     | 0            | 1      | 0     | 0     | 0     | 0     | 1     |       |
| Exiting Leg             | 1               |       |        |       |       |       |       | 0               |       |        |       |       |       |       | 0            |        |       |       |       |       |       | 1     |
| <b>Total</b>            | 1               |       |        |       |       |       |       | 0               |       |        |       |       |       |       | 1            |        |       |       |       |       |       | 2     |

PDI File #: **228414 G**  
 Location: **N: Chestnut Street S: Chestnut Street**  
 Location: **W: Davis Street**  
 City, State: **Newton, MA**  
 Client: **VHB/M. Duranleau**  
 Site Code: **TBD**  
 Count Date: **Thursday, February 10, 2022**  
 Start Time: **4:00 PM**  
 End Time: **6:00 PM**  
 Class:



**Pedestrians**

|                   | Chestnut Street |      |        |        |        |        | Chestnut Street |      |        |        |        |        | Davis Street |      |        |        |        |       | Total |    |
|-------------------|-----------------|------|--------|--------|--------|--------|-----------------|------|--------|--------|--------|--------|--------------|------|--------|--------|--------|-------|-------|----|
|                   | from North      |      |        |        |        |        | from South      |      |        |        |        |        | from West    |      |        |        |        |       |       |    |
|                   | Right           | Thru | U-Turn | CW-EB  | CW-WB  | Total  | Thru            | Left | U-Turn | CW-WB  | CW-EB  | Total  | Right        | Left | U-Turn | CW-NB  | CW-SB  | Total |       |    |
| 4:00 PM           | 0               | 0    | 0      | 2      | 1      | 3      | 0               | 0    | 0      | 0      | 0      | 1      | 1            | 0    | 0      | 0      | 4      | 1     | 5     | 9  |
| 4:15 PM           | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0            | 0    | 0      | 0      | 4      | 1     | 5     | 5  |
| 4:30 PM           | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0            | 0    | 0      | 0      | 2      | 1     | 3     | 3  |
| 4:45 PM           | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0            | 0    | 0      | 0      | 0      | 0     | 0     | 0  |
| Total             | 0               | 0    | 0      | 2      | 1      | 3      | 0               | 0    | 0      | 0      | 0      | 1      | 1            | 0    | 0      | 0      | 10     | 3     | 13    | 17 |
| 5:00 PM           | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0            | 0    | 0      | 0      | 0      | 0     | 0     | 0  |
| 5:15 PM           | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0            | 0    | 0      | 0      | 2      | 2     | 4     | 4  |
| 5:30 PM           | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 1      | 2      | 3      | 0            | 0    | 0      | 1      | 3      | 4     | 7     |    |
| 5:45 PM           | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0            | 0    | 0      | 0      | 0      | 0     | 0     | 0  |
| Total             | 0               | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 1      | 2      | 3      | 0            | 0    | 0      | 3      | 5      | 8     | 11    |    |
| Grand Total       | 0               | 0    | 0      | 2      | 1      | 3      | 0               | 0    | 0      | 1      | 3      | 4      | 0            | 0    | 0      | 13     | 8      | 21    | 28    |    |
| Approach %        | 0               | 0    | 0      | 66.667 | 33.333 |        | 0               | 0    | 0      | 25     | 75     |        | 0            | 0    | 0      | 61.905 | 38.095 |       |       |    |
| Total %           | 0               | 0    | 0      | 7.1429 | 3.5714 | 10.714 | 0               | 0    | 0      | 3.5714 | 10.714 | 14.286 | 0            | 0    | 0      | 46.429 | 28.571 | 75    |       |    |
| Exiting Leg Total | 3               |      |        |        |        |        | 4               |      |        |        |        |        | 21           |      |        |        |        |       | 28    |    |

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

| 4:00 PM          | Chestnut Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Davis Street |       |        |       |       |       | Total |    |
|------------------|-----------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|--------------|-------|--------|-------|-------|-------|-------|----|
|                  | from North      |       |        |       |       |       | from South      |       |        |       |       |       | from West    |       |        |       |       |       |       |    |
|                  | Right           | Thru  | U-Turn | CW-EB | CW-WB | Total | Thru            | Left  | U-Turn | CW-WB | CW-EB | Total | Right        | Left  | U-Turn | CW-NB | CW-SB | Total |       |    |
| 4:00 PM          | 0               | 0     | 0      | 2     | 1     | 3     | 0               | 0     | 0      | 0     | 0     | 1     | 1            | 0     | 0      | 0     | 4     | 1     | 5     | 9  |
| 4:15 PM          | 0               | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0            | 0     | 0      | 0     | 4     | 1     | 5     | 5  |
| 4:30 PM          | 0               | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0            | 0     | 0      | 0     | 2     | 1     | 3     | 3  |
| 4:45 PM          | 0               | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0            | 0     | 0      | 0     | 0     | 0     | 0     | 0  |
| Total Volume     | 0               | 0     | 0      | 2     | 1     | 3     | 0               | 0     | 0      | 0     | 0     | 1     | 1            | 0     | 0      | 0     | 10    | 3     | 13    | 17 |
| % Approach Total | 0.0             | 0.0   | 0.0    | 66.7  | 33.3  |       | 0.0             | 0.0   | 0.0    | 0.0   | 100.0 |       | 0.0          | 0.0   | 0.0    | 76.9  | 23.1  |       |       |    |
| PHF              | 0.000           | 0.000 | 0.000  | 0.250 | 0.250 | 0.250 | 0.000           | 0.000 | 0.000  | 0.000 | 0.250 | 0.250 | 0.000        | 0.000 | 0.000  | 0.625 | 0.750 | 0.650 | 0.472 |    |
| Entering Leg     | 0               | 0     | 0      | 2     | 1     | 3     | 0               | 0     | 0      | 0     | 1     | 1     | 0            | 0     | 0      | 10    | 3     | 13    | 17    |    |
| Exiting Leg      | 3               |       |        |       |       |       | 1               |       |        |       |       |       | 13           |       |        |       |       |       | 17    |    |
| Total            | 6               |       |        |       |       |       | 2               |       |        |       |       |       | 26           |       |        |       |       |       | 34    |    |

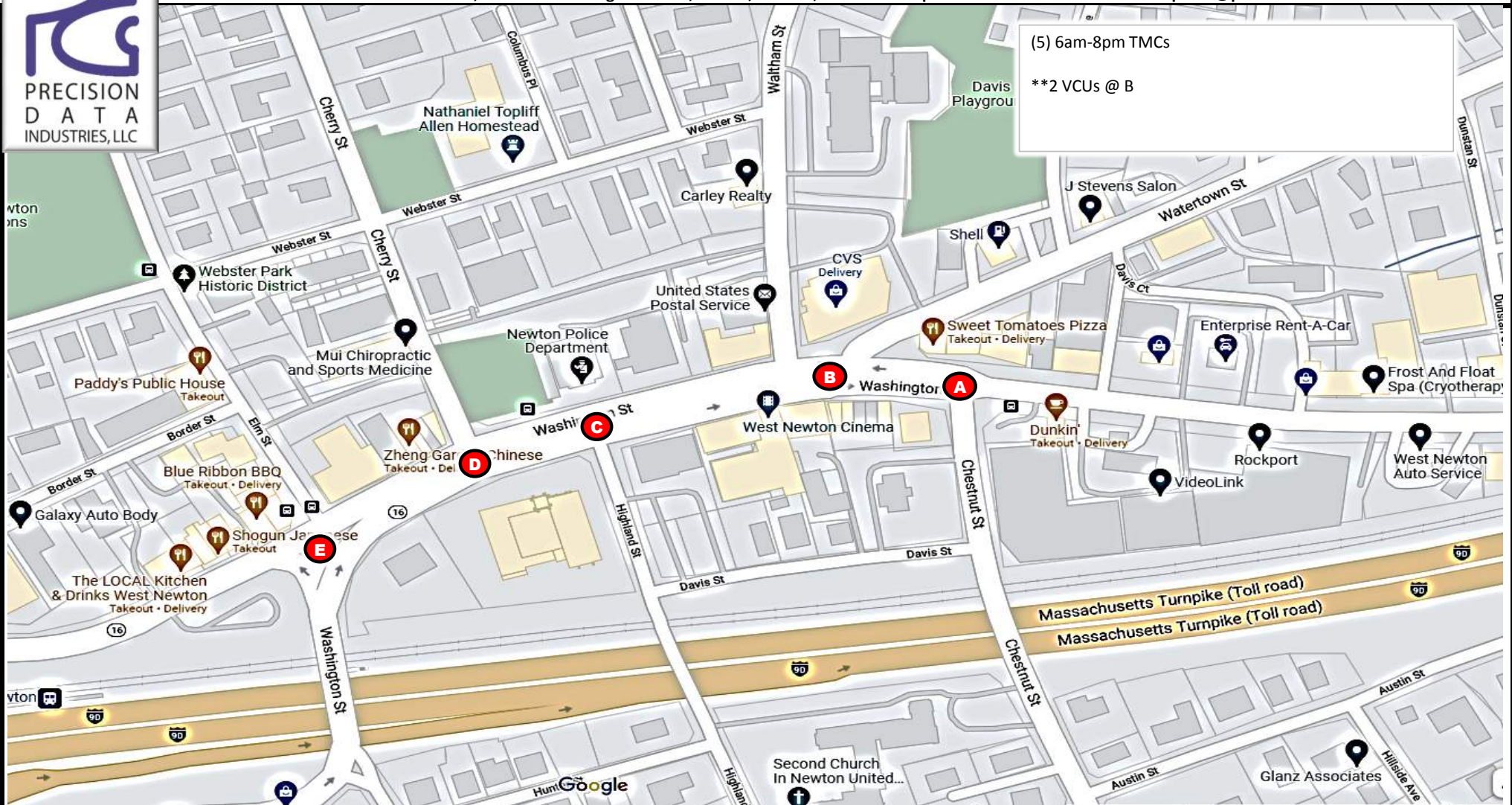
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## October 2021 Traffic Count Data



# Location Map: 218212 West Newton, MA

Precision Data Industries, LLC 157 Washington Street, Suite 2, Hudson, MA 01749 ph: 508-875-0100 email: datarequests@pdillc.com



|                 |                             |                       |                          |                     |                                 |
|-----------------|-----------------------------|-----------------------|--------------------------|---------------------|---------------------------------|
| Client:<br>BETA | Engineer:<br>J. Centracchio | Site Code:<br>5472-14 | Date:<br>Tues 10/19/2021 | PDI Job #<br>218212 | City, State:<br>West Newton, MA |
|-----------------|-----------------------------|-----------------------|--------------------------|---------------------|---------------------------------|

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|          | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|----------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|          | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|          | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 6:00 AM  | 13                | 6    | 0      | 19    | 10              | 3    | 0      | 13    | 2                 | 14   | 0      | 16    | 48    |
| 6:15 AM  | 21                | 5    | 0      | 26    | 9               | 8    | 0      | 17    | 1                 | 27   | 0      | 28    | 71    |
| 6:30 AM  | 26                | 11   | 0      | 37    | 12              | 3    | 0      | 15    | 3                 | 39   | 0      | 42    | 94    |
| 6:45 AM  | 28                | 12   | 0      | 40    | 17              | 5    | 0      | 22    | 6                 | 48   | 0      | 54    | 116   |
| Total    | 88                | 34   | 0      | 122   | 48              | 19   | 0      | 67    | 12                | 128  | 0      | 140   | 329   |
| 7:00 AM  | 27                | 8    | 0      | 35    | 17              | 6    | 0      | 23    | 1                 | 52   | 0      | 53    | 111   |
| 7:15 AM  | 25                | 26   | 0      | 51    | 17              | 22   | 0      | 39    | 10                | 75   | 0      | 85    | 175   |
| 7:30 AM  | 42                | 26   | 0      | 68    | 33              | 21   | 0      | 54    | 9                 | 98   | 0      | 107   | 229   |
| 7:45 AM  | 62                | 44   | 0      | 106   | 31              | 20   | 0      | 51    | 7                 | 130  | 0      | 137   | 294   |
| Total    | 156               | 104  | 0      | 260   | 98              | 69   | 0      | 167   | 27                | 355  | 0      | 382   | 809   |
| 8:00 AM  | 70                | 32   | 0      | 102   | 28              | 9    | 1      | 38    | 7                 | 84   | 0      | 91    | 231   |
| 8:15 AM  | 52                | 32   | 0      | 84    | 33              | 18   | 0      | 51    | 12                | 99   | 0      | 111   | 246   |
| 8:30 AM  | 58                | 55   | 0      | 113   | 25              | 17   | 0      | 42    | 19                | 108  | 0      | 127   | 282   |
| 8:45 AM  | 75                | 48   | 0      | 123   | 68              | 25   | 0      | 93    | 14                | 94   | 0      | 108   | 324   |
| Total    | 255               | 167  | 0      | 422   | 154             | 69   | 1      | 224   | 52                | 385  | 0      | 437   | 1083  |
| 9:00 AM  | 60                | 27   | 0      | 87    | 22              | 21   | 0      | 43    | 8                 | 75   | 0      | 83    | 213   |
| 9:15 AM  | 58                | 24   | 0      | 82    | 31              | 15   | 0      | 46    | 4                 | 59   | 1      | 64    | 192   |
| 9:30 AM  | 50                | 14   | 0      | 64    | 19              | 12   | 0      | 31    | 5                 | 61   | 0      | 66    | 161   |
| 9:45 AM  | 56                | 27   | 0      | 83    | 22              | 15   | 0      | 37    | 6                 | 75   | 0      | 81    | 201   |
| Total    | 224               | 92   | 0      | 316   | 94              | 63   | 0      | 157   | 23                | 270  | 1      | 294   | 767   |
| 10:00 AM | 62                | 17   | 0      | 79    | 21              | 17   | 0      | 38    | 4                 | 70   | 0      | 74    | 191   |
| 10:15 AM | 59                | 17   | 0      | 76    | 15              | 19   | 0      | 34    | 2                 | 46   | 0      | 48    | 158   |
| 10:30 AM | 40                | 15   | 0      | 55    | 16              | 22   | 0      | 38    | 2                 | 44   | 0      | 46    | 139   |
| 10:45 AM | 50                | 22   | 0      | 72    | 27              | 15   | 0      | 42    | 4                 | 61   | 0      | 65    | 179   |
| Total    | 211               | 71   | 0      | 282   | 79              | 73   | 0      | 152   | 12                | 221  | 0      | 233   | 667   |
| 11:00 AM | 48                | 24   | 1      | 73    | 16              | 14   | 0      | 30    | 4                 | 49   | 0      | 53    | 156   |
| 11:15 AM | 66                | 21   | 0      | 87    | 13              | 12   | 0      | 25    | 4                 | 63   | 0      | 67    | 179   |
| 11:30 AM | 59                | 27   | 0      | 86    | 19              | 15   | 0      | 34    | 3                 | 55   | 0      | 58    | 178   |
| 11:45 AM | 50                | 23   | 0      | 73    | 20              | 17   | 0      | 37    | 11                | 48   | 0      | 59    | 169   |
| Total    | 223               | 95   | 1      | 319   | 68              | 58   | 0      | 126   | 22                | 215  | 0      | 237   | 682   |
| 12:00 PM | 55                | 23   | 0      | 78    | 16              | 19   | 0      | 35    | 10                | 69   | 0      | 79    | 192   |
| 12:15 PM | 68                | 28   | 0      | 96    | 18              | 25   | 0      | 43    | 10                | 61   | 0      | 71    | 210   |
| 12:30 PM | 79                | 27   | 0      | 106   | 21              | 14   | 0      | 35    | 12                | 53   | 0      | 65    | 206   |
| 12:45 PM | 67                | 26   | 0      | 93    | 21              | 20   | 0      | 41    | 9                 | 64   | 0      | 73    | 207   |
| Total    | 269               | 104  | 0      | 373   | 76              | 78   | 0      | 154   | 41                | 247  | 0      | 288   | 815   |
| 1:00 PM  | 60                | 19   | 0      | 79    | 30              | 21   | 0      | 51    | 9                 | 56   | 0      | 65    | 195   |
| 1:15 PM  | 55                | 26   | 0      | 81    | 18              | 14   | 0      | 32    | 6                 | 60   | 0      | 66    | 179   |
| 1:30 PM  | 65                | 29   | 0      | 94    | 14              | 21   | 0      | 35    | 6                 | 61   | 0      | 67    | 196   |
| 1:45 PM  | 79                | 26   | 0      | 105   | 19              | 15   | 0      | 34    | 5                 | 50   | 0      | 55    | 194   |
| Total    | 259               | 100  | 0      | 359   | 81              | 71   | 0      | 152   | 26                | 227  | 0      | 253   | 764   |
| 2:00 PM  | 71                | 28   | 0      | 99    | 27              | 32   | 0      | 59    | 8                 | 63   | 0      | 71    | 229   |
| 2:15 PM  | 56                | 28   | 0      | 84    | 22              | 10   | 0      | 32    | 7                 | 89   | 0      | 96    | 212   |
| 2:30 PM  | 80                | 38   | 0      | 118   | 33              | 17   | 0      | 50    | 14                | 59   | 0      | 73    | 241   |
| 2:45 PM  | 100               | 50   | 0      | 150   | 37              | 24   | 0      | 61    | 9                 | 47   | 0      | 56    | 267   |
| Total    | 307               | 144  | 0      | 451   | 119             | 83   | 0      | 202   | 38                | 258  | 0      | 296   | 949   |
| 3:00 PM  | 75                | 42   | 0      | 117   | 31              | 23   | 0      | 54    | 9                 | 57   | 0      | 66    | 237   |
| 3:15 PM  | 96                | 47   | 0      | 143   | 38              | 13   | 0      | 51    | 1                 | 52   | 0      | 53    | 247   |
| 3:30 PM  | 66                | 34   | 0      | 100   | 19              | 22   | 0      | 41    | 16                | 88   | 0      | 104   | 245   |
| 3:45 PM  | 101               | 44   | 0      | 145   | 22              | 16   | 0      | 38    | 9                 | 50   | 0      | 59    | 242   |
| Total    | 338               | 167  | 0      | 505   | 110             | 74   | 0      | 184   | 35                | 247  | 0      | 282   | 971   |
| 4:00 PM  | 69                | 34   | 0      | 103   | 44              | 17   | 0      | 61    | 5                 | 69   | 0      | 74    | 238   |
| 4:15 PM  | 88                | 60   | 0      | 148   | 41              | 19   | 0      | 60    | 7                 | 72   | 0      | 79    | 287   |
| 4:30 PM  | 79                | 49   | 0      | 128   | 43              | 21   | 0      | 64    | 6                 | 79   | 0      | 85    | 277   |
| 4:45 PM  | 74                | 44   | 0      | 118   | 48              | 24   | 0      | 72    | 4                 | 77   | 0      | 81    | 271   |
| Total    | 310               | 187  | 0      | 497   | 176             | 81   | 0      | 257   | 22                | 297  | 0      | 319   | 1073  |
| 5:00 PM  | 65                | 65   | 0      | 130   | 44              | 23   | 0      | 67    | 5                 | 68   | 0      | 73    | 270   |
| 5:15 PM  | 87                | 43   | 0      | 130   | 38              | 20   | 0      | 58    | 6                 | 82   | 0      | 88    | 276   |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                          | Washington Street |             |          |             | Chestnut Street |            |          |             | Washington Street |             |          |             | Total        |
|--------------------------|-------------------|-------------|----------|-------------|-----------------|------------|----------|-------------|-------------------|-------------|----------|-------------|--------------|
|                          | from East         |             |          |             | from South      |            |          |             | from West         |             |          |             |              |
|                          | Thru              | Left        | U-Turn   | Total       | Right           | Left       | U-Turn   | Total       | Right             | Thru        | U-Turn   | Total       |              |
| 5:30 PM                  | 77                | 53          | 0        | 130         | 37              | 26         | 0        | 63          | 7                 | 90          | 0        | 97          | 290          |
| 5:45 PM                  | 90                | 50          | 0        | 140         | 42              | 22         | 0        | 64          | 11                | 90          | 0        | 101         | 305          |
| <b>Total</b>             | <b>319</b>        | <b>211</b>  | <b>0</b> | <b>530</b>  | <b>161</b>      | <b>91</b>  | <b>0</b> | <b>252</b>  | <b>29</b>         | <b>330</b>  | <b>0</b> | <b>359</b>  | <b>1141</b>  |
| 6:00 PM                  | 79                | 43          | 0        | 122         | 39              | 26         | 0        | 65          | 7                 | 106         | 0        | 113         | 300          |
| 6:15 PM                  | 86                | 39          | 0        | 125         | 41              | 20         | 0        | 61          | 7                 | 75          | 0        | 82          | 268          |
| 6:30 PM                  | 81                | 42          | 0        | 123         | 32              | 15         | 0        | 47          | 11                | 81          | 0        | 92          | 262          |
| 6:45 PM                  | 92                | 25          | 0        | 117         | 33              | 18         | 0        | 51          | 5                 | 67          | 0        | 72          | 240          |
| <b>Total</b>             | <b>338</b>        | <b>149</b>  | <b>0</b> | <b>487</b>  | <b>145</b>      | <b>79</b>  | <b>0</b> | <b>224</b>  | <b>30</b>         | <b>329</b>  | <b>0</b> | <b>359</b>  | <b>1070</b>  |
| 7:00 PM                  | 60                | 16          | 0        | 76          | 20              | 18         | 0        | 38          | 6                 | 44          | 0        | 50          | 164          |
| 7:15 PM                  | 53                | 13          | 0        | 66          | 11              | 16         | 0        | 27          | 1                 | 54          | 1        | 56          | 149          |
| 7:30 PM                  | 51                | 14          | 0        | 65          | 17              | 19         | 0        | 36          | 6                 | 42          | 0        | 48          | 149          |
| 7:45 PM                  | 39                | 15          | 0        | 54          | 12              | 16         | 0        | 28          | 5                 | 24          | 0        | 29          | 111          |
| <b>Total</b>             | <b>203</b>        | <b>58</b>   | <b>0</b> | <b>261</b>  | <b>60</b>       | <b>69</b>  | <b>0</b> | <b>129</b>  | <b>18</b>         | <b>164</b>  | <b>1</b> | <b>183</b>  | <b>573</b>   |
| <b>Grand Total</b>       | <b>3500</b>       | <b>1683</b> | <b>1</b> | <b>5184</b> | <b>1469</b>     | <b>977</b> | <b>1</b> | <b>2447</b> | <b>387</b>        | <b>3673</b> | <b>2</b> | <b>4062</b> | <b>11693</b> |
| Approach %               | 67.5              | 32.5        | 0.0      |             | 60.0            | 39.9       | 0.0      |             | 9.5               | 90.4        | 0.0      |             |              |
| Total %                  | 29.9              | 14.4        | 0.0      | 44.3        | 12.6            | 8.4        | 0.0      | 20.9        | 3.3               | 31.4        | 0.0      | 34.7        |              |
| <b>Exiting Leg Total</b> |                   |             |          | <b>5143</b> |                 |            |          | <b>2071</b> |                   |             |          | <b>4479</b> | <b>11693</b> |
| Cars                     | 3379              | 1645        | 1        | 5025        | 1438            | 943        | 1        | 2382        | 369               | 3539        | 2        | 3910        | 11317        |
| % Cars                   | 96.5              | 97.7        | 100.0    | 96.9        | 97.9            | 96.5       | 100.0    | 97.3        | 95.3              | 96.4        | 100.0    | 96.3        | 96.8         |
| <b>Exiting Leg Total</b> |                   |             |          | <b>4978</b> |                 |            |          | <b>2015</b> |                   |             |          | <b>4324</b> | <b>11317</b> |
| Heavy Vehicles           | 121               | 38          | 0        | 159         | 31              | 34         | 0        | 65          | 18                | 134         | 0        | 152         | 376          |
| % Heavy Vehicles         | 3.5               | 2.3         | 0.0      | 3.1         | 2.1             | 3.5        | 0.0      | 2.7         | 4.7               | 3.6         | 0.0      | 3.7         | 3.2          |
| <b>Exiting Leg Total</b> |                   |             |          | <b>165</b>  |                 |            |          | <b>56</b>   |                   |             |          | <b>155</b>  | <b>376</b>   |

**AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:**

|                           | Washington Street |            |          |            | Chestnut Street |           |          |            | Washington Street |            |          |            | Total       |
|---------------------------|-------------------|------------|----------|------------|-----------------|-----------|----------|------------|-------------------|------------|----------|------------|-------------|
|                           | from East         |            |          |            | from South      |           |          |            | from West         |            |          |            |             |
|                           | Thru              | Left       | U-Turn   | Total      | Right           | Left      | U-Turn   | Total      | Right             | Thru       | U-Turn   | Total      |             |
| 8:00 AM                   | 70                | 32         | 0        | 102        | 28              | 9         | 1        | 38         | 7                 | 84         | 0        | 91         | 231         |
| 8:15 AM                   | 52                | 32         | 0        | 84         | 33              | 18        | 0        | 51         | 12                | 99         | 0        | 111        | 246         |
| 8:30 AM                   | 58                | 55         | 0        | 113        | 25              | 17        | 0        | 42         | 19                | 108        | 0        | 127        | 282         |
| 8:45 AM                   | 75                | 48         | 0        | 123        | 68              | 25        | 0        | 93         | 14                | 94         | 0        | 108        | 324         |
| <b>Total Volume</b>       | <b>255</b>        | <b>167</b> | <b>0</b> | <b>422</b> | <b>154</b>      | <b>69</b> | <b>1</b> | <b>224</b> | <b>52</b>         | <b>385</b> | <b>0</b> | <b>437</b> | <b>1083</b> |
| % Approach Total          | 60.4              | 39.6       | 0.0      |            | 68.8            | 30.8      | 0.4      |            | 11.9              | 88.1       | 0.0      |            |             |
| PHF                       | 0.850             | 0.759      | 0.000    | 0.858      | 0.566           | 0.690     | 0.250    | 0.602      | 0.684             | 0.891      | 0.000    | 0.860      | 0.836       |
| Cars                      | 241               | 163        | 0        | 404        | 152             | 67        | 1        | 220        | 49                | 370        | 0        | 419        | 1043        |
| Cars %                    | 94.5              | 97.6       | 0.0      | 95.7       | 98.7            | 97.1      | 100.0    | 98.2       | 94.2              | 96.1       | 0.0      | 95.9       | 96.3        |
| Heavy Vehicles            | 14                | 4          | 0        | 18         | 2               | 2         | 0        | 4          | 3                 | 15         | 0        | 18         | 40          |
| Heavy Vehicles %          | 5.5               | 2.4        | 0.0      | 4.3        | 1.3             | 2.9       | 0.0      | 1.8        | 5.8               | 3.9        | 0.0      | 4.1        | 3.7         |
| Cars Enter Leg            | 241               | 163        | 0        | 404        | 152             | 67        | 1        | 220        | 49                | 370        | 0        | 419        | 1043        |
| Heavy Enter Leg           | 14                | 4          | 0        | 18         | 2               | 2         | 0        | 4          | 3                 | 15         | 0        | 18         | 40          |
| <b>Total Entering Leg</b> | <b>255</b>        | <b>167</b> | <b>0</b> | <b>422</b> | <b>154</b>      | <b>69</b> | <b>1</b> | <b>224</b> | <b>52</b>         | <b>385</b> | <b>0</b> | <b>437</b> | <b>1083</b> |
| Cars Exiting Leg          |                   |            |          | 522        |                 |           |          | 213        |                   |            |          | 308        | 1043        |
| Heavy Exiting Leg         |                   |            |          | 17         |                 |           |          | 7          |                   |            |          | 16         | 40          |
| <b>Total Exiting Leg</b>  |                   |            |          | <b>539</b> |                 |           |          | <b>220</b> |                   |            |          | <b>324</b> | <b>1083</b> |

**MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:**

|                     | Washington Street |            |          |            | Chestnut Street |           |          |            | Washington Street |            |          |            | Total      |
|---------------------|-------------------|------------|----------|------------|-----------------|-----------|----------|------------|-------------------|------------|----------|------------|------------|
|                     | from East         |            |          |            | from South      |           |          |            | from West         |            |          |            |            |
|                     | Thru              | Left       | U-Turn   | Total      | Right           | Left      | U-Turn   | Total      | Right             | Thru       | U-Turn   | Total      |            |
| 1:45 PM             | 79                | 26         | 0        | 105        | 19              | 15        | 0        | 34         | 5                 | 50         | 0        | 55         | 194        |
| 2:00 PM             | 71                | 28         | 0        | 99         | 27              | 32        | 0        | 59         | 8                 | 63         | 0        | 71         | 229        |
| 2:15 PM             | 56                | 28         | 0        | 84         | 22              | 10        | 0        | 32         | 7                 | 89         | 0        | 96         | 212        |
| 2:30 PM             | 80                | 38         | 0        | 118        | 33              | 17        | 0        | 50         | 14                | 59         | 0        | 73         | 241        |
| <b>Total Volume</b> | <b>286</b>        | <b>120</b> | <b>0</b> | <b>406</b> | <b>101</b>      | <b>74</b> | <b>0</b> | <b>175</b> | <b>34</b>         | <b>261</b> | <b>0</b> | <b>295</b> | <b>876</b> |
| % Approach Total    | 70.4              | 29.6       | 0.0      |            | 57.7            | 42.3      | 0.0      |            | 11.5              | 88.5       | 0.0      |            |            |
| PHF                 | 0.894             | 0.789      | 0.000    | 0.860      | 0.765           | 0.578     | 0.000    | 0.742      | 0.607             | 0.733      | 0.000    | 0.768      | 0.909      |
| Cars                | 280               | 114        | 0        | 394        | 100             | 70        | 0        | 170        | 31                | 253        | 0        | 284        | 848        |



PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                    | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|--------------------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|                    | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|                    | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| Cars %             | 97.9              | 95.0 | 0.0    | 97.0  | 99.0            | 94.6 | 0.0    | 97.1  | 91.2              | 96.9 | 0.0    | 96.3  | 96.8  |
| Heavy Vehicles     | 6                 | 6    | 0      | 12    | 1               | 4    | 0      | 5     | 3                 | 8    | 0      | 11    | 28    |
| Heavy Vehicles %   | 2.1               | 5.0  | 0.0    | 3.0   | 1.0             | 5.4  | 0.0    | 2.9   | 8.8               | 3.1  | 0.0    | 3.7   | 3.2   |
| Cars Enter Leg     | 280               | 114  | 0      | 394   | 100             | 70   | 0      | 170   | 31                | 253  | 0      | 284   | 848   |
| Heavy Enter Leg    | 6                 | 6    | 0      | 12    | 1               | 4    | 0      | 5     | 3                 | 8    | 0      | 11    | 28    |
| Total Entering Leg | 286               | 120  | 0      | 406   | 101             | 74   | 0      | 175   | 34                | 261  | 0      | 295   | 876   |
| Cars Exiting Leg   |                   |      |        | 353   |                 |      |        | 145   |                   |      |        | 350   | 848   |
| Heavy Exiting Leg  |                   |      |        | 9     |                 |      |        | 9     |                   |      |        | 10    | 28    |
| Total Exiting Leg  |                   |      |        | 362   |                 |      |        | 154   |                   |      |        | 360   | 876   |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 5:15 PM            | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|--------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                    | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                    | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 5:15 PM            | 87                | 43    | 0      | 130   | 38              | 20    | 0      | 58    | 6                 | 82    | 0      | 88    | 276   |
| 5:30 PM            | 77                | 53    | 0      | 130   | 37              | 26    | 0      | 63    | 7                 | 90    | 0      | 97    | 290   |
| 5:45 PM            | 90                | 50    | 0      | 140   | 42              | 22    | 0      | 64    | 11                | 90    | 0      | 101   | 305   |
| 6:00 PM            | 79                | 43    | 0      | 122   | 39              | 26    | 0      | 65    | 7                 | 106   | 0      | 113   | 300   |
| Total Volume       | 333               | 189   | 0      | 522   | 156             | 94    | 0      | 250   | 31                | 368   | 0      | 399   | 1171  |
| % Approach Total   | 63.8              | 36.2  | 0.0    |       | 62.4            | 37.6  | 0.0    |       | 7.8               | 92.2  | 0.0    |       |       |
| PHF                | 0.925             | 0.892 | 0.000  | 0.932 | 0.929           | 0.904 | 0.000  | 0.962 | 0.705             | 0.868 | 0.000  | 0.883 | 0.960 |
| Cars               | 323               | 189   | 0      | 512   | 156             | 93    | 0      | 249   | 31                | 358   | 0      | 389   | 1150  |
| Cars %             | 97.0              | 100.0 | 0.0    | 98.1  | 100.0           | 98.9  | 0.0    | 99.6  | 100.0             | 97.3  | 0.0    | 97.5  | 98.2  |
| Heavy Vehicles     | 10                | 0     | 0      | 10    | 0               | 1     | 0      | 1     | 0                 | 10    | 0      | 10    | 21    |
| Heavy Vehicles %   | 3.0               | 0.0   | 0.0    | 1.9   | 0.0             | 1.1   | 0.0    | 0.4   | 0.0               | 2.7   | 0.0    | 2.5   | 1.8   |
| Cars Enter Leg     | 323               | 189   | 0      | 512   | 156             | 93    | 0      | 249   | 31                | 358   | 0      | 389   | 1150  |
| Heavy Enter Leg    | 10                | 0     | 0      | 10    | 0               | 1     | 0      | 1     | 0                 | 10    | 0      | 10    | 21    |
| Total Entering Leg | 333               | 189   | 0      | 522   | 156             | 94    | 0      | 250   | 31                | 368   | 0      | 399   | 1171  |
| Cars Exiting Leg   |                   |       |        | 514   |                 |       |        | 220   |                   |       |        | 416   | 1150  |
| Heavy Exiting Leg  |                   |       |        | 10    |                 |       |        | 0     |                   |       |        | 11    | 21    |
| Total Exiting Leg  |                   |       |        | 524   |                 |       |        | 220   |                   |       |        | 427   | 1171  |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars**

|          | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|----------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|          | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|          | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 6:00 AM  | 12                | 6    | 0      | 18    | 10              | 3    | 0      | 13    | 2                 | 14   | 0      | 16    | 47    |
| 6:15 AM  | 20                | 5    | 0      | 25    | 9               | 7    | 0      | 16    | 1                 | 25   | 0      | 26    | 67    |
| 6:30 AM  | 23                | 11   | 0      | 34    | 12              | 3    | 0      | 15    | 3                 | 35   | 0      | 38    | 87    |
| 6:45 AM  | 25                | 10   | 0      | 35    | 17              | 5    | 0      | 22    | 6                 | 47   | 0      | 53    | 110   |
| Total    | 80                | 32   | 0      | 112   | 48              | 18   | 0      | 66    | 12                | 121  | 0      | 133   | 311   |
| 7:00 AM  | 27                | 8    | 0      | 35    | 17              | 6    | 0      | 23    | 1                 | 50   | 0      | 51    | 109   |
| 7:15 AM  | 23                | 23   | 0      | 46    | 17              | 21   | 0      | 38    | 9                 | 70   | 0      | 79    | 163   |
| 7:30 AM  | 38                | 24   | 0      | 62    | 33              | 18   | 0      | 51    | 8                 | 90   | 0      | 98    | 211   |
| 7:45 AM  | 62                | 44   | 0      | 106   | 31              | 20   | 0      | 51    | 6                 | 128  | 0      | 134   | 291   |
| Total    | 150               | 99   | 0      | 249   | 98              | 65   | 0      | 163   | 24                | 338  | 0      | 362   | 774   |
| 8:00 AM  | 66                | 32   | 0      | 98    | 27              | 9    | 1      | 37    | 6                 | 79   | 0      | 85    | 220   |
| 8:15 AM  | 51                | 28   | 0      | 79    | 32              | 18   | 0      | 50    | 12                | 95   | 0      | 107   | 236   |
| 8:30 AM  | 53                | 55   | 0      | 108   | 25              | 16   | 0      | 41    | 17                | 104  | 0      | 121   | 270   |
| 8:45 AM  | 71                | 48   | 0      | 119   | 68              | 24   | 0      | 92    | 14                | 92   | 0      | 106   | 317   |
| Total    | 241               | 163  | 0      | 404   | 152             | 67   | 1      | 220   | 49                | 370  | 0      | 419   | 1043  |
| 9:00 AM  | 59                | 27   | 0      | 86    | 19              | 19   | 0      | 38    | 8                 | 71   | 0      | 79    | 203   |
| 9:15 AM  | 57                | 24   | 0      | 81    | 31              | 15   | 0      | 46    | 4                 | 57   | 1      | 62    | 189   |
| 9:30 AM  | 48                | 14   | 0      | 62    | 19              | 12   | 0      | 31    | 5                 | 60   | 0      | 65    | 158   |
| 9:45 AM  | 51                | 27   | 0      | 78    | 21              | 15   | 0      | 36    | 5                 | 68   | 0      | 73    | 187   |
| Total    | 215               | 92   | 0      | 307   | 90              | 61   | 0      | 151   | 22                | 256  | 1      | 279   | 737   |
| 10:00 AM | 56                | 17   | 0      | 73    | 21              | 15   | 0      | 36    | 4                 | 68   | 0      | 72    | 181   |
| 10:15 AM | 56                | 15   | 0      | 71    | 15              | 17   | 0      | 32    | 2                 | 43   | 0      | 45    | 148   |
| 10:30 AM | 38                | 14   | 0      | 52    | 13              | 20   | 0      | 33    | 2                 | 42   | 0      | 44    | 129   |
| 10:45 AM | 49                | 22   | 0      | 71    | 25              | 14   | 0      | 39    | 4                 | 54   | 0      | 58    | 168   |
| Total    | 199               | 68   | 0      | 267   | 74              | 66   | 0      | 140   | 12                | 207  | 0      | 219   | 626   |
| 11:00 AM | 42                | 23   | 1      | 66    | 16              | 13   | 0      | 29    | 4                 | 47   | 0      | 51    | 146   |
| 11:15 AM | 62                | 20   | 0      | 82    | 13              | 11   | 0      | 24    | 3                 | 61   | 0      | 64    | 170   |
| 11:30 AM | 57                | 25   | 0      | 82    | 19              | 15   | 0      | 34    | 2                 | 55   | 0      | 57    | 173   |
| 11:45 AM | 48                | 23   | 0      | 71    | 19              | 17   | 0      | 36    | 11                | 48   | 0      | 59    | 166   |
| Total    | 209               | 91   | 1      | 301   | 67              | 56   | 0      | 123   | 20                | 211  | 0      | 231   | 655   |
| 12:00 PM | 54                | 23   | 0      | 77    | 15              | 17   | 0      | 32    | 9                 | 63   | 0      | 72    | 181   |
| 12:15 PM | 65                | 28   | 0      | 93    | 18              | 23   | 0      | 41    | 10                | 59   | 0      | 69    | 203   |
| 12:30 PM | 74                | 26   | 0      | 100   | 21              | 14   | 0      | 35    | 11                | 51   | 0      | 62    | 197   |
| 12:45 PM | 64                | 26   | 0      | 90    | 20              | 20   | 0      | 40    | 9                 | 61   | 0      | 70    | 200   |
| Total    | 257               | 103  | 0      | 360   | 74              | 74   | 0      | 148   | 39                | 234  | 0      | 273   | 781   |
| 1:00 PM  | 57                | 19   | 0      | 76    | 30              | 19   | 0      | 49    | 8                 | 52   | 0      | 60    | 185   |
| 1:15 PM  | 54                | 25   | 0      | 79    | 17              | 12   | 0      | 29    | 6                 | 59   | 0      | 65    | 173   |
| 1:30 PM  | 64                | 27   | 0      | 91    | 13              | 21   | 0      | 34    | 5                 | 58   | 0      | 63    | 188   |
| 1:45 PM  | 76                | 24   | 0      | 100   | 18              | 15   | 0      | 33    | 4                 | 49   | 0      | 53    | 186   |
| Total    | 251               | 95   | 0      | 346   | 78              | 67   | 0      | 145   | 23                | 218  | 0      | 241   | 732   |
| 2:00 PM  | 70                | 26   | 0      | 96    | 27              | 30   | 0      | 57    | 8                 | 63   | 0      | 71    | 224   |
| 2:15 PM  | 56                | 26   | 0      | 82    | 22              | 9    | 0      | 31    | 6                 | 83   | 0      | 89    | 202   |
| 2:30 PM  | 78                | 38   | 0      | 116   | 33              | 16   | 0      | 49    | 13                | 58   | 0      | 71    | 236   |
| 2:45 PM  | 98                | 50   | 0      | 148   | 37              | 22   | 0      | 59    | 8                 | 47   | 0      | 55    | 262   |
| Total    | 302               | 140  | 0      | 442   | 119             | 77   | 0      | 196   | 35                | 251  | 0      | 286   | 924   |
| 3:00 PM  | 74                | 41   | 0      | 115   | 31              | 23   | 0      | 54    | 9                 | 55   | 0      | 64    | 233   |
| 3:15 PM  | 95                | 46   | 0      | 141   | 38              | 12   | 0      | 50    | 1                 | 51   | 0      | 52    | 243   |
| 3:30 PM  | 63                | 32   | 0      | 95    | 18              | 22   | 0      | 40    | 16                | 86   | 0      | 102   | 237   |
| 3:45 PM  | 99                | 43   | 0      | 142   | 21              | 16   | 0      | 37    | 9                 | 48   | 0      | 57    | 236   |
| Total    | 331               | 162  | 0      | 493   | 108             | 73   | 0      | 181   | 35                | 240  | 0      | 275   | 949   |
| 4:00 PM  | 68                | 33   | 0      | 101   | 42              | 17   | 0      | 59    | 4                 | 66   | 0      | 70    | 230   |
| 4:15 PM  | 87                | 57   | 0      | 144   | 40              | 19   | 0      | 59    | 7                 | 70   | 0      | 77    | 280   |
| 4:30 PM  | 76                | 49   | 0      | 125   | 41              | 21   | 0      | 62    | 6                 | 77   | 0      | 83    | 270   |
| 4:45 PM  | 74                | 44   | 0      | 118   | 48              | 24   | 0      | 72    | 4                 | 74   | 0      | 78    | 268   |
| Total    | 305               | 183  | 0      | 488   | 171             | 81   | 0      | 252   | 21                | 287  | 0      | 308   | 1048  |
| 5:00 PM  | 63                | 65   | 0      | 128   | 42              | 23   | 0      | 65    | 5                 | 68   | 0      | 73    | 266   |
| 5:15 PM  | 86                | 43   | 0      | 129   | 38              | 19   | 0      | 57    | 6                 | 78   | 0      | 84    | 270   |



PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars**

|                   | Washington Street |            |          |            | Chestnut Street |           |          |            | Washington Street |            |          |            | Total       |
|-------------------|-------------------|------------|----------|------------|-----------------|-----------|----------|------------|-------------------|------------|----------|------------|-------------|
|                   | from East         |            |          |            | from South      |           |          |            | from West         |            |          |            |             |
|                   | Thru              | Left       | U-Turn   | Total      | Right           | Left      | U-Turn   | Total      | Right             | Thru       | U-Turn   | Total      |             |
| 5:30 PM           | 75                | 53         | 0        | 128        | 37              | 26        | 0        | 63         | 7                 | 90         | 0        | 97         | 288         |
| 5:45 PM           | 86                | 50         | 0        | 136        | 42              | 22        | 0        | 64         | 11                | 87         | 0        | 98         | 298         |
| <b>Total</b>      | <b>310</b>        | <b>211</b> | <b>0</b> | <b>521</b> | <b>159</b>      | <b>90</b> | <b>0</b> | <b>249</b> | <b>29</b>         | <b>323</b> | <b>0</b> | <b>352</b> | <b>1122</b> |
| 6:00 PM           | 76                | 43         | 0        | 119        | 39              | 26        | 0        | 65         | 7                 | 103        | 0        | 110        | 294         |
| 6:15 PM           | 84                | 39         | 0        | 123        | 39              | 20        | 0        | 59         | 7                 | 75         | 0        | 82         | 264         |
| 6:30 PM           | 80                | 42         | 0        | 122        | 32              | 15        | 0        | 47         | 11                | 79         | 0        | 90         | 259         |
| 6:45 PM           | 89                | 25         | 0        | 114        | 31              | 18        | 0        | 49         | 5                 | 66         | 0        | 71         | 234         |
| <b>Total</b>      | <b>329</b>        | <b>149</b> | <b>0</b> | <b>478</b> | <b>141</b>      | <b>79</b> | <b>0</b> | <b>220</b> | <b>30</b>         | <b>323</b> | <b>0</b> | <b>353</b> | <b>1051</b> |
| 7:00 PM           | 60                | 16         | 0        | 76         | 19              | 18        | 0        | 37         | 6                 | 43         | 0        | 49         | 162         |
| 7:15 PM           | 52                | 13         | 0        | 65         | 11              | 16        | 0        | 27         | 1                 | 53         | 1        | 55         | 147         |
| 7:30 PM           | 50                | 14         | 0        | 64         | 17              | 19        | 0        | 36         | 6                 | 41         | 0        | 47         | 147         |
| 7:45 PM           | 38                | 14         | 0        | 52         | 12              | 16        | 0        | 28         | 5                 | 23         | 0        | 28         | 108         |
| <b>Total</b>      | <b>200</b>        | <b>57</b>  | <b>0</b> | <b>257</b> | <b>59</b>       | <b>69</b> | <b>0</b> | <b>128</b> | <b>18</b>         | <b>160</b> | <b>1</b> | <b>179</b> | <b>564</b>  |
| Grand Total       | 3379              | 1645       | 1        | 5025       | 1438            | 943       | 1        | 2382       | 369               | 3539       | 2        | 3910       | 11317       |
| Approach %        | 67.2              | 32.7       | 0.0      |            | 60.4            | 39.6      | 0.0      |            | 9.4               | 90.5       | 0.1      |            |             |
| Total %           | 29.9              | 14.5       | 0.0      | 44.4       | 12.7            | 8.3       | 0.0      | 21.0       | 3.3               | 31.3       | 0.0      | 34.5       |             |
| Exiting Leg Total |                   |            |          | 4978       |                 |           |          | 2015       |                   |            |          | 4324       | 11317       |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

| 8:00 AM          | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                  | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                  | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 8:00 AM          | 66                | 32    | 0      | 98    | 27              | 9     | 1      | 37    | 6                 | 79    | 0      | 85    | 220   |
| 8:15 AM          | 51                | 28    | 0      | 79    | 32              | 18    | 0      | 50    | 12                | 95    | 0      | 107   | 236   |
| 8:30 AM          | 53                | 55    | 0      | 108   | 25              | 16    | 0      | 41    | 17                | 104   | 0      | 121   | 270   |
| 8:45 AM          | 71                | 48    | 0      | 119   | 68              | 24    | 0      | 92    | 14                | 92    | 0      | 106   | 317   |
| Total Volume     | 241               | 163   | 0      | 404   | 152             | 67    | 1      | 220   | 49                | 370   | 0      | 419   | 1043  |
| % Approach Total | 59.7              | 40.3  | 0.0    |       | 69.1            | 30.5  | 0.5    |       | 11.7              | 88.3  | 0.0    |       |       |
| PHF              | 0.849             | 0.741 | 0.000  | 0.849 | 0.559           | 0.698 | 0.250  | 0.598 | 0.721             | 0.889 | 0.000  | 0.866 | 0.823 |
| Entering Leg     | 241               | 163   | 0      | 404   | 152             | 67    | 1      | 220   | 49                | 370   | 0      | 419   | 1043  |
| Exiting Leg      |                   |       |        | 522   |                 |       |        | 213   |                   |       |        | 308   | 1043  |
| Total            |                   |       |        | 926   |                 |       |        | 433   |                   |       |        | 727   | 2086  |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

| 1:45 PM          | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                  | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                  | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 1:45 PM          | 76                | 24    | 0      | 100   | 18              | 15    | 0      | 33    | 4                 | 49    | 0      | 53    | 186   |
| 2:00 PM          | 70                | 26    | 0      | 96    | 27              | 30    | 0      | 57    | 8                 | 63    | 0      | 71    | 224   |
| 2:15 PM          | 56                | 26    | 0      | 82    | 22              | 9     | 0      | 31    | 6                 | 83    | 0      | 89    | 202   |
| 2:30 PM          | 78                | 38    | 0      | 116   | 33              | 16    | 0      | 49    | 13                | 58    | 0      | 71    | 236   |
| Total Volume     | 280               | 114   | 0      | 394   | 100             | 70    | 0      | 170   | 31                | 253   | 0      | 284   | 848   |
| % Approach Total | 71.1              | 28.9  | 0.0    |       | 58.8            | 41.2  | 0.0    |       | 10.9              | 89.1  | 0.0    |       |       |
| PHF              | 0.897             | 0.750 | 0.000  | 0.849 | 0.758           | 0.583 | 0.000  | 0.746 | 0.596             | 0.762 | 0.000  | 0.798 | 0.898 |
| Entering Leg     | 280               | 114   | 0      | 394   | 100             | 70    | 0      | 170   | 31                | 253   | 0      | 284   | 848   |
| Exiting Leg      |                   |       |        | 353   |                 |       |        | 145   |                   |       |        | 350   | 848   |
| Total            |                   |       |        | 747   |                 |       |        | 315   |                   |       |        | 634   | 1696  |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 5:15 PM | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|---------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|         | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|         | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 5:15 PM | 86                | 43   | 0      | 129   | 38              | 19   | 0      | 57    | 6                 | 78   | 0      | 84    | 270   |
| 5:30 PM | 75                | 53   | 0      | 128   | 37              | 26   | 0      | 63    | 7                 | 90   | 0      | 97    | 288   |
| 5:45 PM | 86                | 50   | 0      | 136   | 42              | 22   | 0      | 64    | 11                | 87   | 0      | 98    | 298   |
| 6:00 PM | 76                | 43   | 0      | 119   | 39              | 26   | 0      | 65    | 7                 | 103  | 0      | 110   | 294   |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars**

|                  | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                  | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                  | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| Total Volume     | 323               | 189   | 0      | 512   | 156             | 93    | 0      | 249   | 31                | 358   | 0      | 389   | 1150  |
| % Approach Total | 63.1              | 36.9  | 0.0    |       | 62.7            | 37.3  | 0.0    |       | 8.0               | 92.0  | 0.0    |       |       |
| PHF              | 0.939             | 0.892 | 0.000  | 0.941 | 0.929           | 0.894 | 0.000  | 0.958 | 0.705             | 0.869 | 0.000  | 0.884 | 0.965 |
| Entering Leg     | 323               | 189   | 0      | 512   | 156             | 93    | 0      | 249   | 31                | 358   | 0      | 389   | 1150  |
| Exiting Leg      |                   |       |        | 514   |                 |       |        | 220   |                   |       |        | 416   | 1150  |
| Total            |                   |       |        | 1026  |                 |       |        | 469   |                   |       |        | 805   | 2300  |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|          | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|----------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|          | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|          | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 6:00 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 6:15 AM  | 1                 | 0    | 0      | 1     | 0               | 1    | 0      | 1     | 0                 | 2    | 0      | 2     | 4     |
| 6:30 AM  | 3                 | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                 | 4    | 0      | 4     | 7     |
| 6:45 AM  | 3                 | 2    | 0      | 5     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 6     |
| Total    | 8                 | 2    | 0      | 10    | 0               | 1    | 0      | 1     | 0                 | 7    | 0      | 7     | 18    |
| 7:00 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 2     |
| 7:15 AM  | 2                 | 3    | 0      | 5     | 0               | 1    | 0      | 1     | 1                 | 5    | 0      | 6     | 12    |
| 7:30 AM  | 4                 | 2    | 0      | 6     | 0               | 3    | 0      | 3     | 1                 | 8    | 0      | 9     | 18    |
| 7:45 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 1                 | 2    | 0      | 3     | 3     |
| Total    | 6                 | 5    | 0      | 11    | 0               | 4    | 0      | 4     | 3                 | 17   | 0      | 20    | 35    |
| 8:00 AM  | 4                 | 0    | 0      | 4     | 1               | 0    | 0      | 1     | 1                 | 5    | 0      | 6     | 11    |
| 8:15 AM  | 1                 | 4    | 0      | 5     | 1               | 0    | 0      | 1     | 0                 | 4    | 0      | 4     | 10    |
| 8:30 AM  | 5                 | 0    | 0      | 5     | 0               | 1    | 0      | 1     | 2                 | 4    | 0      | 6     | 12    |
| 8:45 AM  | 4                 | 0    | 0      | 4     | 0               | 1    | 0      | 1     | 0                 | 2    | 0      | 2     | 7     |
| Total    | 14                | 4    | 0      | 18    | 2               | 2    | 0      | 4     | 3                 | 15   | 0      | 18    | 40    |
| 9:00 AM  | 1                 | 0    | 0      | 1     | 3               | 2    | 0      | 5     | 0                 | 4    | 0      | 4     | 10    |
| 9:15 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 3     |
| 9:30 AM  | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 3     |
| 9:45 AM  | 5                 | 0    | 0      | 5     | 1               | 0    | 0      | 1     | 1                 | 7    | 0      | 8     | 14    |
| Total    | 9                 | 0    | 0      | 9     | 4               | 2    | 0      | 6     | 1                 | 14   | 0      | 15    | 30    |
| 10:00 AM | 6                 | 0    | 0      | 6     | 0               | 2    | 0      | 2     | 0                 | 2    | 0      | 2     | 10    |
| 10:15 AM | 3                 | 2    | 0      | 5     | 0               | 2    | 0      | 2     | 0                 | 3    | 0      | 3     | 10    |
| 10:30 AM | 2                 | 1    | 0      | 3     | 3               | 2    | 0      | 5     | 0                 | 2    | 0      | 2     | 10    |
| 10:45 AM | 1                 | 0    | 0      | 1     | 2               | 1    | 0      | 3     | 0                 | 7    | 0      | 7     | 11    |
| Total    | 12                | 3    | 0      | 15    | 5               | 7    | 0      | 12    | 0                 | 14   | 0      | 14    | 41    |
| 11:00 AM | 6                 | 1    | 0      | 7     | 0               | 1    | 0      | 1     | 0                 | 2    | 0      | 2     | 10    |
| 11:15 AM | 4                 | 1    | 0      | 5     | 0               | 1    | 0      | 1     | 1                 | 2    | 0      | 3     | 9     |
| 11:30 AM | 2                 | 2    | 0      | 4     | 0               | 0    | 0      | 0     | 1                 | 0    | 0      | 1     | 5     |
| 11:45 AM | 2                 | 0    | 0      | 2     | 1               | 0    | 0      | 1     | 0                 | 0    | 0      | 0     | 3     |
| Total    | 14                | 4    | 0      | 18    | 1               | 2    | 0      | 3     | 2                 | 4    | 0      | 6     | 27    |
| 12:00 PM | 1                 | 0    | 0      | 1     | 1               | 2    | 0      | 3     | 1                 | 6    | 0      | 7     | 11    |
| 12:15 PM | 3                 | 0    | 0      | 3     | 0               | 2    | 0      | 2     | 0                 | 2    | 0      | 2     | 7     |
| 12:30 PM | 5                 | 1    | 0      | 6     | 0               | 0    | 0      | 0     | 1                 | 2    | 0      | 3     | 9     |
| 12:45 PM | 3                 | 0    | 0      | 3     | 1               | 0    | 0      | 1     | 0                 | 3    | 0      | 3     | 7     |
| Total    | 12                | 1    | 0      | 13    | 2               | 4    | 0      | 6     | 2                 | 13   | 0      | 15    | 34    |
| 1:00 PM  | 3                 | 0    | 0      | 3     | 0               | 2    | 0      | 2     | 1                 | 4    | 0      | 5     | 10    |
| 1:15 PM  | 1                 | 1    | 0      | 2     | 1               | 2    | 0      | 3     | 0                 | 1    | 0      | 1     | 6     |
| 1:30 PM  | 1                 | 2    | 0      | 3     | 1               | 0    | 0      | 1     | 1                 | 3    | 0      | 4     | 8     |
| 1:45 PM  | 3                 | 2    | 0      | 5     | 1               | 0    | 0      | 1     | 1                 | 1    | 0      | 2     | 8     |
| Total    | 8                 | 5    | 0      | 13    | 3               | 4    | 0      | 7     | 3                 | 9    | 0      | 12    | 32    |
| 2:00 PM  | 1                 | 2    | 0      | 3     | 0               | 2    | 0      | 2     | 0                 | 0    | 0      | 0     | 5     |
| 2:15 PM  | 0                 | 2    | 0      | 2     | 0               | 1    | 0      | 1     | 1                 | 6    | 0      | 7     | 10    |
| 2:30 PM  | 2                 | 0    | 0      | 2     | 0               | 1    | 0      | 1     | 1                 | 1    | 0      | 2     | 5     |
| 2:45 PM  | 2                 | 0    | 0      | 2     | 0               | 2    | 0      | 2     | 1                 | 0    | 0      | 1     | 5     |
| Total    | 5                 | 4    | 0      | 9     | 0               | 6    | 0      | 6     | 3                 | 7    | 0      | 10    | 25    |
| 3:00 PM  | 1                 | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 4     |
| 3:15 PM  | 1                 | 1    | 0      | 2     | 0               | 1    | 0      | 1     | 0                 | 1    | 0      | 1     | 4     |
| 3:30 PM  | 3                 | 2    | 0      | 5     | 1               | 0    | 0      | 1     | 0                 | 2    | 0      | 2     | 8     |
| 3:45 PM  | 2                 | 1    | 0      | 3     | 1               | 0    | 0      | 1     | 0                 | 2    | 0      | 2     | 6     |
| Total    | 7                 | 5    | 0      | 12    | 2               | 1    | 0      | 3     | 0                 | 7    | 0      | 7     | 22    |
| 4:00 PM  | 1                 | 1    | 0      | 2     | 2               | 0    | 0      | 2     | 1                 | 3    | 0      | 4     | 8     |
| 4:15 PM  | 1                 | 3    | 0      | 4     | 1               | 0    | 0      | 1     | 0                 | 2    | 0      | 2     | 7     |
| 4:30 PM  | 3                 | 0    | 0      | 3     | 2               | 0    | 0      | 2     | 0                 | 2    | 0      | 2     | 7     |
| 4:45 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 3    | 0      | 3     | 3     |
| Total    | 5                 | 4    | 0      | 9     | 5               | 0    | 0      | 5     | 1                 | 10   | 0      | 11    | 25    |
| 5:00 PM  | 2                 | 0    | 0      | 2     | 2               | 0    | 0      | 2     | 0                 | 0    | 0      | 0     | 4     |
| 5:15 PM  | 1                 | 0    | 0      | 1     | 0               | 1    | 0      | 1     | 0                 | 4    | 0      | 4     | 6     |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



|                    | Washington Street |          |          |          | Chestnut Street |          |          |          | Washington Street |          |          |          | Total     |
|--------------------|-------------------|----------|----------|----------|-----------------|----------|----------|----------|-------------------|----------|----------|----------|-----------|
|                    | from East         |          |          |          | from South      |          |          |          | from West         |          |          |          |           |
|                    | Thru              | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right             | Thru     | U-Turn   | Total    |           |
| 5:30 PM            | 2                 | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 2         |
| 5:45 PM            | 4                 | 0        | 0        | 4        | 0               | 0        | 0        | 0        | 0                 | 3        | 0        | 3        | 7         |
| <b>Total</b>       | <b>9</b>          | <b>0</b> | <b>0</b> | <b>9</b> | <b>2</b>        | <b>1</b> | <b>0</b> | <b>3</b> | <b>0</b>          | <b>7</b> | <b>0</b> | <b>7</b> | <b>19</b> |
| 6:00 PM            | 3                 | 0        | 0        | 3        | 0               | 0        | 0        | 0        | 0                 | 3        | 0        | 3        | 6         |
| 6:15 PM            | 2                 | 0        | 0        | 2        | 2               | 0        | 0        | 2        | 0                 | 0        | 0        | 0        | 4         |
| 6:30 PM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 2        | 0        | 2        | 3         |
| 6:45 PM            | 3                 | 0        | 0        | 3        | 2               | 0        | 0        | 2        | 0                 | 1        | 0        | 1        | 6         |
| <b>Total</b>       | <b>9</b>          | <b>0</b> | <b>0</b> | <b>9</b> | <b>4</b>        | <b>0</b> | <b>0</b> | <b>4</b> | <b>0</b>          | <b>6</b> | <b>0</b> | <b>6</b> | <b>19</b> |
| 7:00 PM            | 0                 | 0        | 0        | 0        | 1               | 0        | 0        | 1        | 0                 | 1        | 0        | 1        | 2         |
| 7:15 PM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 2         |
| 7:30 PM            | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 2         |
| 7:45 PM            | 1                 | 1        | 0        | 2        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 3         |
| <b>Total</b>       | <b>3</b>          | <b>1</b> | <b>0</b> | <b>4</b> | <b>1</b>        | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b>          | <b>4</b> | <b>0</b> | <b>4</b> | <b>9</b>  |
| Grand Total        | 121               | 38       | 0        | 159      | 31              | 34       | 0        | 65       | 18                | 134      | 0        | 152      | 376       |
| Approach %         | 76.1              | 23.9     | 0.0      |          | 47.7            | 52.3     | 0.0      |          | 11.8              | 88.2     | 0.0      |          |           |
| Total %            | 32.2              | 10.1     | 0.0      | 42.3     | 8.2             | 9.0      | 0.0      | 17.3     | 4.8               | 35.6     | 0.0      | 40.4     |           |
| Exiting Leg Total  | 165               |          |          |          | 56              |          |          |          | 155               |          |          |          | 376       |
| Buses              | 31                | 6        | 0        | 37       | 1               | 1        | 0        | 2        | 0                 | 39       | 0        | 39       | 78        |
| % Buses            | 25.6              | 15.8     | 0.0      | 23.3     | 3.2             | 2.9      | 0.0      | 3.1      | 0.0               | 29.1     | 0.0      | 25.7     | 20.7      |
| Exiting Leg Total  | 40                |          |          |          | 6               |          |          |          | 32                |          |          |          | 78        |
| Single-Unit Trucks | 73                | 24       | 0        | 97       | 25              | 30       | 0        | 55       | 13                | 75       | 0        | 88       | 240       |
| % Single-Unit      | 60.3              | 63.2     | 0.0      | 61.0     | 80.6            | 88.2     | 0.0      | 84.6     | 72.2              | 56.0     | 0.0      | 57.9     | 63.8      |
| Exiting Leg Total  | 100               |          |          |          | 37              |          |          |          | 103               |          |          |          | 240       |
| Articulated Trucks | 17                | 8        | 0        | 25       | 5               | 3        | 0        | 8        | 5                 | 20       | 0        | 25       | 58        |
| % Articulated      | 14.0              | 21.1     | 0.0      | 15.7     | 16.1            | 8.8      | 0.0      | 12.3     | 27.8              | 14.9     | 0.0      | 16.4     | 15.4      |
| Exiting Leg Total  | 25                |          |          |          | 13              |          |          |          | 20                |          |          |          | 58        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                    | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|--------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                    | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                    | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 7:15 AM            | 2                 | 3     | 0      | 5     | 0               | 1     | 0      | 1     | 1                 | 5     | 0      | 6     | 12    |
| 7:30 AM            | 4                 | 2     | 0      | 6     | 0               | 3     | 0      | 3     | 1                 | 8     | 0      | 9     | 18    |
| 7:45 AM            | 0                 | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 1                 | 2     | 0      | 3     | 3     |
| 8:00 AM            | 4                 | 0     | 0      | 4     | 1               | 0     | 0      | 1     | 1                 | 5     | 0      | 6     | 11    |
| Total Volume       | 10                | 5     | 0      | 15    | 1               | 4     | 0      | 5     | 4                 | 20    | 0      | 24    | 44    |
| % Approach Total   | 66.7              | 33.3  | 0.0    |       | 20.0            | 80.0  | 0.0    |       | 16.7              | 83.3  | 0.0    |       |       |
| PHF                | 0.625             | 0.417 | 0.000  | 0.625 | 0.250           | 0.333 | 0.000  | 0.417 | 1.000             | 0.625 | 0.000  | 0.667 | 0.611 |
| Buses              | 3                 | 2     | 0      | 5     | 0               | 1     | 0      | 1     | 0                 | 3     | 0      | 3     | 9     |
| Buses %            | 30.0              | 40.0  | 0.0    | 33.3  | 0.0             | 25.0  | 0.0    | 20.0  | 0.0               | 15.0  | 0.0    | 12.5  | 20.5  |
| Single-Unit Trucks | 7                 | 1     | 0      | 8     | 1               | 3     | 0      | 4     | 2                 | 13    | 0      | 15    | 27    |
| Single-Unit %      | 70.0              | 20.0  | 0.0    | 53.3  | 100.0           | 75.0  | 0.0    | 80.0  | 50.0              | 65.0  | 0.0    | 62.5  | 61.4  |
| Articulated Trucks | 0                 | 2     | 0      | 2     | 0               | 0     | 0      | 0     | 2                 | 4     | 0      | 6     | 8     |
| Articulated %      | 0.0               | 40.0  | 0.0    | 13.3  | 0.0             | 0.0   | 0.0    | 0.0   | 50.0              | 20.0  | 0.0    | 25.0  | 18.2  |
| Buses              | 3                 | 2     | 0      | 5     | 0               | 1     | 0      | 1     | 0                 | 3     | 0      | 3     | 9     |
| Single-Unit Trucks | 7                 | 1     | 0      | 8     | 1               | 3     | 0      | 4     | 2                 | 13    | 0      | 15    | 27    |
| Articulated Trucks | 0                 | 2     | 0      | 2     | 0               | 0     | 0      | 0     | 2                 | 4     | 0      | 6     | 8     |
| Total Entering Leg | 10                | 5     | 0      | 15    | 1               | 4     | 0      | 5     | 4                 | 20    | 0      | 24    | 44    |
| Buses              | 3                 |       |        |       | 2               |       |        |       | 4                 |       |        |       | 9     |
| Single-Unit Trucks | 14                |       |        |       | 3               |       |        |       | 10                |       |        |       | 27    |
| Articulated Trucks | 4                 |       |        |       | 4               |       |        |       | 0                 |       |        |       | 8     |
| Total Exiting Leg  | 21                |       |        |       | 9               |       |        |       | 14                |       |        |       | 44    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

| 10:00 AM | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|----------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|          | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|          | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|--------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                    | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                    | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 10:00 AM           | 6                 | 0     | 0      | 6     | 0               | 2     | 0      | 2     | 0                 | 2     | 0      | 2     | 10    |
| 10:15 AM           | 3                 | 2     | 0      | 5     | 0               | 2     | 0      | 2     | 0                 | 3     | 0      | 3     | 10    |
| 10:30 AM           | 2                 | 1     | 0      | 3     | 3               | 2     | 0      | 5     | 0                 | 2     | 0      | 2     | 10    |
| 10:45 AM           | 1                 | 0     | 0      | 1     | 2               | 1     | 0      | 3     | 0                 | 7     | 0      | 7     | 11    |
| Total Volume       | 12                | 3     | 0      | 15    | 5               | 7     | 0      | 12    | 0                 | 14    | 0      | 14    | 41    |
| % Approach Total   | 80.0              | 20.0  | 0.0    |       | 41.7            | 58.3  | 0.0    |       | 0.0               | 100.0 | 0.0    |       |       |
| PHF                | 0.500             | 0.375 | 0.000  | 0.625 | 0.417           | 0.875 | 0.000  | 0.600 | 0.000             | 0.500 | 0.000  | 0.500 | 0.932 |
| Buses              | 1                 | 0     | 0      | 1     | 0               | 0     | 0      | 0     | 0                 | 2     | 0      | 2     | 3     |
| Buses %            | 8.3               | 0.0   | 0.0    | 6.7   | 0.0             | 0.0   | 0.0    | 0.0   | 0.0               | 14.3  | 0.0    | 14.3  | 7.3   |
| Single-Unit Trucks | 6                 | 3     | 0      | 9     | 3               | 7     | 0      | 10    | 0                 | 9     | 0      | 9     | 28    |
| Single-Unit %      | 50.0              | 100.0 | 0.0    | 60.0  | 60.0            | 100.0 | 0.0    | 83.3  | 0.0               | 64.3  | 0.0    | 64.3  | 68.3  |
| Articulated Trucks | 5                 | 0     | 0      | 5     | 2               | 0     | 0      | 2     | 0                 | 3     | 0      | 3     | 10    |
| Articulated %      | 41.7              | 0.0   | 0.0    | 33.3  | 40.0            | 0.0   | 0.0    | 16.7  | 0.0               | 21.4  | 0.0    | 21.4  | 24.4  |
| Buses              | 1                 | 0     | 0      | 1     | 0               | 0     | 0      | 0     | 0                 | 2     | 0      | 2     | 3     |
| Single-Unit Trucks | 6                 | 3     | 0      | 9     | 3               | 7     | 0      | 10    | 0                 | 9     | 0      | 9     | 28    |
| Articulated Trucks | 5                 | 0     | 0      | 5     | 2               | 0     | 0      | 2     | 0                 | 3     | 0      | 3     | 10    |
| Total Entering Leg | 12                | 3     | 0      | 15    | 5               | 7     | 0      | 12    | 0                 | 14    | 0      | 14    | 41    |
| Buses              |                   |       |        | 2     |                 |       |        | 0     |                   |       |        | 1     | 3     |
| Single-Unit Trucks |                   |       |        | 12    |                 |       |        | 3     |                   |       |        | 13    | 28    |
| Articulated Trucks |                   |       |        | 5     |                 |       |        | 0     |                   |       |        | 5     | 10    |
| Total Exiting Leg  |                   |       |        | 19    |                 |       |        | 3     |                   |       |        | 19    | 41    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|                    | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|--------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                    | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                    | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 3:30 PM            | 3                 | 2     | 0      | 5     | 1               | 0     | 0      | 1     | 0                 | 2     | 0      | 2     | 8     |
| 3:45 PM            | 2                 | 1     | 0      | 3     | 1               | 0     | 0      | 1     | 0                 | 2     | 0      | 2     | 6     |
| 4:00 PM            | 1                 | 1     | 0      | 2     | 2               | 0     | 0      | 2     | 1                 | 3     | 0      | 4     | 8     |
| 4:15 PM            | 1                 | 3     | 0      | 4     | 1               | 0     | 0      | 1     | 0                 | 2     | 0      | 2     | 7     |
| Total Volume       | 7                 | 7     | 0      | 14    | 5               | 0     | 0      | 5     | 1                 | 9     | 0      | 10    | 29    |
| % Approach Total   | 50.0              | 50.0  | 0.0    |       | 100.0           | 0.0   | 0.0    |       | 10.0              | 90.0  | 0.0    |       |       |
| PHF                | 0.583             | 0.583 | 0.000  | 0.700 | 0.625           | 0.000 | 0.000  | 0.625 | 0.250             | 0.750 | 0.000  | 0.625 | 0.906 |
| Buses              | 3                 | 1     | 0      | 4     | 1               | 0     | 0      | 1     | 0                 | 3     | 0      | 3     | 8     |
| Buses %            | 42.9              | 14.3  | 0.0    | 28.6  | 20.0            | 0.0   | 0.0    | 20.0  | 0.0               | 33.3  | 0.0    | 30.0  | 27.6  |
| Single-Unit Trucks | 3                 | 4     | 0      | 7     | 3               | 0     | 0      | 3     | 1                 | 4     | 0      | 5     | 15    |
| Single-Unit %      | 42.9              | 57.1  | 0.0    | 50.0  | 60.0            | 0.0   | 0.0    | 60.0  | 100.0             | 44.4  | 0.0    | 50.0  | 51.7  |
| Articulated Trucks | 1                 | 2     | 0      | 3     | 1               | 0     | 0      | 1     | 0                 | 2     | 0      | 2     | 6     |
| Articulated %      | 14.3              | 28.6  | 0.0    | 21.4  | 20.0            | 0.0   | 0.0    | 20.0  | 0.0               | 22.2  | 0.0    | 20.0  | 20.7  |
| Buses              | 3                 | 1     | 0      | 4     | 1               | 0     | 0      | 1     | 0                 | 3     | 0      | 3     | 8     |
| Single-Unit Trucks | 3                 | 4     | 0      | 7     | 3               | 0     | 0      | 3     | 1                 | 4     | 0      | 5     | 15    |
| Articulated Trucks | 1                 | 2     | 0      | 3     | 1               | 0     | 0      | 1     | 0                 | 2     | 0      | 2     | 6     |
| Total Entering Leg | 7                 | 7     | 0      | 14    | 5               | 0     | 0      | 5     | 1                 | 9     | 0      | 10    | 29    |
| Buses              |                   |       |        | 4     |                 |       |        | 1     |                   |       |        | 3     | 8     |
| Single-Unit Trucks |                   |       |        | 7     |                 |       |        | 5     |                   |       |        | 3     | 15    |
| Articulated Trucks |                   |       |        | 3     |                 |       |        | 2     |                   |       |        | 1     | 6     |
| Total Exiting Leg  |                   |       |        | 14    |                 |       |        | 8     |                   |       |        | 7     | 29    |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|          | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|----------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|          | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|          | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 6:00 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 6:15 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 6:30 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 2     |
| 6:45 AM  | 0                 | 2    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 2     |
| Total    | 2                 | 2    | 0      | 4     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 5     |
| 7:00 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 7:15 AM  | 1                 | 0    | 0      | 1     | 0               | 1    | 0      | 1     | 0                 | 2    | 0      | 2     | 4     |
| 7:30 AM  | 1                 | 2    | 0      | 3     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 4     |
| 7:45 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| Total    | 2                 | 2    | 0      | 4     | 0               | 1    | 0      | 1     | 0                 | 4    | 0      | 4     | 9     |
| 8:00 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 8:15 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 3     |
| 8:30 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 8:45 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 3     |
| Total    | 3                 | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                 | 5    | 0      | 5     | 8     |
| 9:00 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 2     |
| 9:15 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 9:30 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 9:45 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| Total    | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 4     |
| 10:00 AM | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 2     |
| 10:15 AM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 10:30 AM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 10:45 AM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| Total    | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 3     |
| 11:00 AM | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 11:15 AM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 11:30 AM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 11:45 AM | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| Total    | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 3     |
| 12:00 PM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 12:15 PM | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 12:30 PM | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 12:45 PM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| Total    | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 4     |
| 1:00 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 1:15 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 1:30 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 1:45 PM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| Total    | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 2     |
| 2:00 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 2:15 PM  | 0                 | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 3    | 0      | 3     | 4     |
| 2:30 PM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 2     |
| 2:45 PM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| Total    | 2                 | 1    | 0      | 3     | 0               | 0    | 0      | 0     | 0                 | 4    | 0      | 4     | 7     |
| 3:00 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 2     |
| 3:15 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 3:30 PM  | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 3     |
| 3:45 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| Total    | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 4    | 0      | 4     | 6     |
| 4:00 PM  | 1                 | 0    | 0      | 1     | 1               | 0    | 0      | 1     | 0                 | 1    | 0      | 1     | 3     |
| 4:15 PM  | 0                 | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 4:30 PM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 2     |
| 4:45 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| Total    | 2                 | 1    | 0      | 3     | 1               | 0    | 0      | 1     | 0                 | 3    | 0      | 3     | 7     |
| 5:00 PM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 5:15 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 2     |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|                    | Washington Street |          |          |           | Chestnut Street |          |          |          | Washington Street |           |          |           | Total     |
|--------------------|-------------------|----------|----------|-----------|-----------------|----------|----------|----------|-------------------|-----------|----------|-----------|-----------|
|                    | from East         |          |          |           | from South      |          |          |          | from West         |           |          |           |           |
|                    | Thru              | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right             | Thru      | U-Turn   | Total     |           |
| 5:30 PM            | 2                 | 0        | 0        | 2         | 0               | 0        | 0        | 0        | 0                 | 0         | 0        | 0         | 2         |
| 5:45 PM            | 1                 | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                 | 1         | 0        | 1         | 2         |
| <b>Total</b>       | <b>4</b>          | <b>0</b> | <b>0</b> | <b>4</b>  | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>3</b>  | <b>0</b> | <b>3</b>  | <b>7</b>  |
| 6:00 PM            | 1                 | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                 | 3         | 0        | 3         | 4         |
| 6:15 PM            | 1                 | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                 | 0         | 0        | 0         | 1         |
| 6:30 PM            | 1                 | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                 | 1         | 0        | 1         | 2         |
| 6:45 PM            | 1                 | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                 | 0         | 0        | 0         | 1         |
| <b>Total</b>       | <b>4</b>          | <b>0</b> | <b>0</b> | <b>4</b>  | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>4</b>  | <b>0</b> | <b>4</b>  | <b>8</b>  |
| 7:00 PM            | 0                 | 0        | 0        | 0         | 0               | 0        | 0        | 0        | 0                 | 1         | 0        | 1         | 1         |
| 7:15 PM            | 1                 | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                 | 1         | 0        | 1         | 2         |
| 7:30 PM            | 0                 | 0        | 0        | 0         | 0               | 0        | 0        | 0        | 0                 | 0         | 0        | 0         | 0         |
| 7:45 PM            | 1                 | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                 | 1         | 0        | 1         | 2         |
| <b>Total</b>       | <b>2</b>          | <b>0</b> | <b>0</b> | <b>2</b>  | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>3</b>  | <b>0</b> | <b>3</b>  | <b>5</b>  |
| <b>Grand Total</b> | <b>31</b>         | <b>6</b> | <b>0</b> | <b>37</b> | <b>1</b>        | <b>1</b> | <b>0</b> | <b>2</b> | <b>0</b>          | <b>39</b> | <b>0</b> | <b>39</b> | <b>78</b> |
| Approach %         | 83.8              | 16.2     | 0.0      |           | 50.0            | 50.0     | 0.0      |          | 0.0               | 100.0     | 0.0      |           |           |
| Total %            | 39.7              | 7.7      | 0.0      | 47.4      | 1.3             | 1.3      | 0.0      | 2.6      | 0.0               | 50.0      | 0.0      | 50.0      |           |
| Exiting Leg Total  | 40                |          |          |           | 6               |          |          |          | 32                |           |          |           | 78        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Washington Street |          |          |          | Chestnut Street |          |          |          | Washington Street |          |          |          | Total     |
|---------------------|-------------------|----------|----------|----------|-----------------|----------|----------|----------|-------------------|----------|----------|----------|-----------|
|                     | from East         |          |          |          | from South      |          |          |          | from West         |          |          |          |           |
|                     | Thru              | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right             | Thru     | U-Turn   | Total    |           |
| 6:45 AM             | 0                 | 2        | 0        | 2        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 2         |
| 7:00 AM             | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 1         |
| 7:15 AM             | 1                 | 0        | 0        | 1        | 0               | 1        | 0        | 1        | 0                 | 2        | 0        | 2        | 4         |
| 7:30 AM             | 1                 | 2        | 0        | 3        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 4         |
| <b>Total Volume</b> | <b>2</b>          | <b>4</b> | <b>0</b> | <b>6</b> | <b>0</b>        | <b>1</b> | <b>0</b> | <b>1</b> | <b>0</b>          | <b>4</b> | <b>0</b> | <b>4</b> | <b>11</b> |
| % Approach Total    | 33.3              | 66.7     | 0.0      |          | 0.0             | 100.0    | 0.0      |          | 0.0               | 100.0    | 0.0      |          |           |
| PHF                 | 0.500             | 0.500    | 0.000    | 0.500    | 0.000           | 0.250    | 0.000    | 0.250    | 0.000             | 0.500    | 0.000    | 0.500    | 0.688     |
| Entering Leg        | 2                 | 4        | 0        | 6        | 0               | 1        | 0        | 1        | 0                 | 4        | 0        | 4        | 11        |
| Exiting Leg         | 4                 |          |          |          | 4               |          |          |          | 3                 |          |          |          | 11        |
| <b>Total</b>        | <b>10</b>         |          |          |          | <b>5</b>        |          |          |          | <b>7</b>          |          |          |          | <b>22</b> |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Washington Street |          |          |          | Chestnut Street |          |          |          | Washington Street |          |          |          | Total     |
|---------------------|-------------------|----------|----------|----------|-----------------|----------|----------|----------|-------------------|----------|----------|----------|-----------|
|                     | from East         |          |          |          | from South      |          |          |          | from West         |          |          |          |           |
|                     | Thru              | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right             | Thru     | U-Turn   | Total    |           |
| 1:45 PM             | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 1         |
| 2:00 PM             | 0                 | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                 | 0        | 0        | 0        | 0         |
| 2:15 PM             | 0                 | 1        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 3        | 0        | 3        | 4         |
| 2:30 PM             | 1                 | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 0                 | 1        | 0        | 1        | 2         |
| <b>Total Volume</b> | <b>2</b>          | <b>1</b> | <b>0</b> | <b>3</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>          | <b>4</b> | <b>0</b> | <b>4</b> | <b>7</b>  |
| % Approach Total    | 66.7              | 33.3     | 0.0      |          | 0.0             | 0.0      | 0.0      |          | 0.0               | 100.0    | 0.0      |          |           |
| PHF                 | 0.500             | 0.250    | 0.000    | 0.750    | 0.000           | 0.000    | 0.000    | 0.000    | 0.000             | 0.333    | 0.000    | 0.333    | 0.438     |
| Entering Leg        | 2                 | 1        | 0        | 3        | 0               | 0        | 0        | 0        | 0                 | 4        | 0        | 4        | 7         |
| Exiting Leg         | 4                 |          |          |          | 1               |          |          |          | 2                 |          |          |          | 7         |
| <b>Total</b>        | <b>7</b>          |          |          |          | <b>1</b>        |          |          |          | <b>6</b>          |          |          |          | <b>14</b> |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|---------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|         | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|         | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 5:15 PM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 2     |
| 5:30 PM | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 2     |
| 5:45 PM | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 2     |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Buses**

|                  | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                  | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                  | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 6:00 PM          | 1                 | 0     | 0      | 1     | 0               | 0     | 0      | 0     | 0                 | 3     | 0      | 3     | 4     |
| Total Volume     | 4                 | 0     | 0      | 4     | 0               | 0     | 0      | 0     | 0                 | 6     | 0      | 6     | 10    |
| % Approach Total | 100.0             | 0.0   | 0.0    |       | 0.0             | 0.0   | 0.0    |       | 0.0               | 100.0 | 0.0    |       |       |
| PHF              | 0.500             | 0.000 | 0.000  | 0.500 | 0.000           | 0.000 | 0.000  | 0.000 | 0.000             | 0.500 | 0.000  | 0.500 | 0.625 |
| Entering Leg     | 4                 | 0     | 0      | 4     | 0               | 0     | 0      | 0     | 0                 | 6     | 0      | 6     | 10    |
| Exiting Leg      |                   |       |        | 6     |                 |       |        | 0     |                   |       |        | 4     | 10    |
| Total            |                   |       |        | 10    |                 |       |        | 0     |                   |       |        | 10    | 20    |



PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Single-Unit Trucks**

|          | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|----------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|          | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|          | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 6:00 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 6:15 AM  | 0                 | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                 | 2    | 0      | 2     | 3     |
| 6:30 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 3    | 0      | 3     | 4     |
| 6:45 AM  | 3                 | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 4     |
| Total    | 4                 | 0    | 0      | 4     | 0               | 1    | 0      | 1     | 0                 | 6    | 0      | 6     | 11    |
| 7:00 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 7:15 AM  | 1                 | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 3    | 0      | 3     | 5     |
| 7:30 AM  | 3                 | 0    | 0      | 3     | 0               | 3    | 0      | 3     | 1                 | 7    | 0      | 8     | 14    |
| 7:45 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| Total    | 4                 | 1    | 0      | 5     | 0               | 3    | 0      | 3     | 1                 | 11   | 0      | 12    | 20    |
| 8:00 AM  | 3                 | 0    | 0      | 3     | 1               | 0    | 0      | 1     | 1                 | 3    | 0      | 4     | 8     |
| 8:15 AM  | 0                 | 4    | 0      | 4     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 6     |
| 8:30 AM  | 3                 | 0    | 0      | 3     | 0               | 1    | 0      | 1     | 1                 | 3    | 0      | 4     | 8     |
| 8:45 AM  | 3                 | 0    | 0      | 3     | 0               | 1    | 0      | 1     | 0                 | 0    | 0      | 0     | 4     |
| Total    | 9                 | 4    | 0      | 13    | 1               | 2    | 0      | 3     | 2                 | 8    | 0      | 10    | 26    |
| 9:00 AM  | 0                 | 0    | 0      | 0     | 3               | 2    | 0      | 5     | 0                 | 3    | 0      | 3     | 8     |
| 9:15 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 2     |
| 9:30 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 9:45 AM  | 4                 | 0    | 0      | 4     | 1               | 0    | 0      | 1     | 1                 | 6    | 0      | 7     | 12    |
| Total    | 5                 | 0    | 0      | 5     | 4               | 2    | 0      | 6     | 1                 | 11   | 0      | 12    | 23    |
| 10:00 AM | 3                 | 0    | 0      | 3     | 0               | 2    | 0      | 2     | 0                 | 1    | 0      | 1     | 6     |
| 10:15 AM | 0                 | 2    | 0      | 2     | 0               | 2    | 0      | 2     | 0                 | 2    | 0      | 2     | 6     |
| 10:30 AM | 2                 | 1    | 0      | 3     | 2               | 2    | 0      | 4     | 0                 | 1    | 0      | 1     | 8     |
| 10:45 AM | 1                 | 0    | 0      | 1     | 1               | 1    | 0      | 2     | 0                 | 5    | 0      | 5     | 8     |
| Total    | 6                 | 3    | 0      | 9     | 3               | 7    | 0      | 10    | 0                 | 9    | 0      | 9     | 28    |
| 11:00 AM | 5                 | 1    | 0      | 6     | 0               | 1    | 0      | 1     | 0                 | 2    | 0      | 2     | 9     |
| 11:15 AM | 4                 | 1    | 0      | 5     | 0               | 1    | 0      | 1     | 1                 | 1    | 0      | 2     | 8     |
| 11:30 AM | 1                 | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 1                 | 0    | 0      | 1     | 3     |
| 11:45 AM | 1                 | 0    | 0      | 1     | 1               | 0    | 0      | 1     | 0                 | 0    | 0      | 0     | 2     |
| Total    | 11                | 3    | 0      | 14    | 1               | 2    | 0      | 3     | 2                 | 3    | 0      | 5     | 22    |
| 12:00 PM | 1                 | 0    | 0      | 1     | 1               | 2    | 0      | 3     | 1                 | 3    | 0      | 4     | 8     |
| 12:15 PM | 2                 | 0    | 0      | 2     | 0               | 1    | 0      | 1     | 0                 | 2    | 0      | 2     | 5     |
| 12:30 PM | 3                 | 1    | 0      | 4     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 4     |
| 12:45 PM | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 3     |
| Total    | 8                 | 1    | 0      | 9     | 1               | 3    | 0      | 4     | 1                 | 6    | 0      | 7     | 20    |
| 1:00 PM  | 3                 | 0    | 0      | 3     | 0               | 2    | 0      | 2     | 1                 | 4    | 0      | 5     | 10    |
| 1:15 PM  | 1                 | 1    | 0      | 2     | 1               | 1    | 0      | 2     | 0                 | 1    | 0      | 1     | 5     |
| 1:30 PM  | 1                 | 1    | 0      | 2     | 1               | 0    | 0      | 1     | 0                 | 2    | 0      | 2     | 5     |
| 1:45 PM  | 2                 | 1    | 0      | 3     | 1               | 0    | 0      | 1     | 1                 | 1    | 0      | 2     | 6     |
| Total    | 7                 | 3    | 0      | 10    | 3               | 3    | 0      | 6     | 2                 | 8    | 0      | 10    | 26    |
| 2:00 PM  | 1                 | 2    | 0      | 3     | 0               | 2    | 0      | 2     | 0                 | 0    | 0      | 0     | 5     |
| 2:15 PM  | 0                 | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 1                 | 1    | 0      | 2     | 3     |
| 2:30 PM  | 1                 | 0    | 0      | 1     | 0               | 1    | 0      | 1     | 1                 | 0    | 0      | 1     | 3     |
| 2:45 PM  | 1                 | 0    | 0      | 1     | 0               | 2    | 0      | 2     | 1                 | 0    | 0      | 1     | 4     |
| Total    | 3                 | 3    | 0      | 6     | 0               | 5    | 0      | 5     | 3                 | 1    | 0      | 4     | 15    |
| 3:00 PM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 3:15 PM  | 1                 | 1    | 0      | 2     | 0               | 1    | 0      | 1     | 0                 | 1    | 0      | 1     | 4     |
| 3:30 PM  | 1                 | 1    | 0      | 2     | 1               | 0    | 0      | 1     | 0                 | 1    | 0      | 1     | 4     |
| 3:45 PM  | 2                 | 1    | 0      | 3     | 1               | 0    | 0      | 1     | 0                 | 1    | 0      | 1     | 5     |
| Total    | 5                 | 3    | 0      | 8     | 2               | 1    | 0      | 3     | 0                 | 3    | 0      | 3     | 14    |
| 4:00 PM  | 0                 | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 1                 | 1    | 0      | 2     | 3     |
| 4:15 PM  | 0                 | 1    | 0      | 1     | 1               | 0    | 0      | 1     | 0                 | 1    | 0      | 1     | 3     |
| 4:30 PM  | 2                 | 0    | 0      | 2     | 2               | 0    | 0      | 2     | 0                 | 1    | 0      | 1     | 5     |
| 4:45 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| Total    | 2                 | 2    | 0      | 4     | 3               | 0    | 0      | 3     | 1                 | 4    | 0      | 5     | 12    |
| 5:00 PM  | 1                 | 0    | 0      | 1     | 2               | 0    | 0      | 2     | 0                 | 0    | 0      | 0     | 3     |
| 5:15 PM  | 1                 | 0    | 0      | 1     | 0               | 1    | 0      | 1     | 0                 | 2    | 0      | 2     | 4     |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Single-Unit Trucks**

|                    | Washington Street |           |          |           | Chestnut Street |           |          |           | Washington Street |           |          |           | Total      |
|--------------------|-------------------|-----------|----------|-----------|-----------------|-----------|----------|-----------|-------------------|-----------|----------|-----------|------------|
|                    | from East         |           |          |           | from South      |           |          |           | from West         |           |          |           |            |
|                    | Thru              | Left      | U-Turn   | Total     | Right           | Left      | U-Turn   | Total     | Right             | Thru      | U-Turn   | Total     |            |
| 5:30 PM            | 0                 | 0         | 0        | 0         | 0               | 0         | 0        | 0         | 0                 | 0         | 0        | 0         | 0          |
| 5:45 PM            | 3                 | 0         | 0        | 3         | 0               | 0         | 0        | 0         | 0                 | 1         | 0        | 1         | 4          |
| <b>Total</b>       | <b>5</b>          | <b>0</b>  | <b>0</b> | <b>5</b>  | <b>2</b>        | <b>1</b>  | <b>0</b> | <b>3</b>  | <b>0</b>          | <b>3</b>  | <b>0</b> | <b>3</b>  | <b>11</b>  |
| 6:00 PM            | 1                 | 0         | 0        | 1         | 0               | 0         | 0        | 0         | 0                 | 0         | 0        | 0         | 1          |
| 6:15 PM            | 1                 | 0         | 0        | 1         | 2               | 0         | 0        | 2         | 0                 | 0         | 0        | 0         | 3          |
| 6:30 PM            | 0                 | 0         | 0        | 0         | 0               | 0         | 0        | 0         | 0                 | 0         | 0        | 0         | 0          |
| 6:45 PM            | 2                 | 0         | 0        | 2         | 2               | 0         | 0        | 2         | 0                 | 1         | 0        | 1         | 5          |
| <b>Total</b>       | <b>4</b>          | <b>0</b>  | <b>0</b> | <b>4</b>  | <b>4</b>        | <b>0</b>  | <b>0</b> | <b>4</b>  | <b>0</b>          | <b>1</b>  | <b>0</b> | <b>1</b>  | <b>9</b>   |
| 7:00 PM            | 0                 | 0         | 0        | 0         | 1               | 0         | 0        | 1         | 0                 | 0         | 0        | 0         | 1          |
| 7:15 PM            | 0                 | 0         | 0        | 0         | 0               | 0         | 0        | 0         | 0                 | 0         | 0        | 0         | 0          |
| 7:30 PM            | 0                 | 0         | 0        | 0         | 0               | 0         | 0        | 0         | 0                 | 1         | 0        | 1         | 1          |
| 7:45 PM            | 0                 | 1         | 0        | 1         | 0               | 0         | 0        | 0         | 0                 | 0         | 0        | 0         | 1          |
| <b>Total</b>       | <b>0</b>          | <b>1</b>  | <b>0</b> | <b>1</b>  | <b>1</b>        | <b>0</b>  | <b>0</b> | <b>1</b>  | <b>0</b>          | <b>1</b>  | <b>0</b> | <b>1</b>  | <b>3</b>   |
| <b>Grand Total</b> | <b>73</b>         | <b>24</b> | <b>0</b> | <b>97</b> | <b>25</b>       | <b>30</b> | <b>0</b> | <b>55</b> | <b>13</b>         | <b>75</b> | <b>0</b> | <b>88</b> | <b>240</b> |
| Approach %         | 75.3              | 24.7      | 0.0      |           | 45.5            | 54.5      | 0.0      |           | 14.8              | 85.2      | 0.0      |           |            |
| Total %            | 30.4              | 10.0      | 0.0      | 40.4      | 10.4            | 12.5      | 0.0      | 22.9      | 5.4               | 31.3      | 0.0      | 36.7      |            |
| Exiting Leg Total  | 100               |           |          |           | 37              |           |          |           | 103               |           |          |           | 240        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Washington Street |          |          |           | Chestnut Street |          |          |          | Washington Street |           |          |           | Total     |
|---------------------|-------------------|----------|----------|-----------|-----------------|----------|----------|----------|-------------------|-----------|----------|-----------|-----------|
|                     | from East         |          |          |           | from South      |          |          |          | from West         |           |          |           |           |
|                     | Thru              | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right             | Thru      | U-Turn   | Total     |           |
| 9:45 AM             | 4                 | 0        | 0        | 4         | 1               | 0        | 0        | 1        | 1                 | 6         | 0        | 7         | 12        |
| 10:00 AM            | 3                 | 0        | 0        | 3         | 0               | 2        | 0        | 2        | 0                 | 1         | 0        | 1         | 6         |
| 10:15 AM            | 0                 | 2        | 0        | 2         | 0               | 2        | 0        | 2        | 0                 | 2         | 0        | 2         | 6         |
| 10:30 AM            | 2                 | 1        | 0        | 3         | 2               | 2        | 0        | 4        | 0                 | 1         | 0        | 1         | 8         |
| <b>Total Volume</b> | <b>9</b>          | <b>3</b> | <b>0</b> | <b>12</b> | <b>3</b>        | <b>6</b> | <b>0</b> | <b>9</b> | <b>1</b>          | <b>10</b> | <b>0</b> | <b>11</b> | <b>32</b> |
| % Approach Total    | 75.0              | 25.0     | 0.0      |           | 33.3            | 66.7     | 0.0      |          | 9.1               | 90.9      | 0.0      |           |           |
| PHF                 | 0.563             | 0.375    | 0.000    | 0.750     | 0.375           | 0.750    | 0.000    | 0.563    | 0.250             | 0.417     | 0.000    | 0.393     | 0.667     |
| Entering Leg        | 9                 | 3        | 0        | 12        | 3               | 6        | 0        | 9        | 1                 | 10        | 0        | 11        | 32        |
| Exiting Leg         | 13                |          |          |           | 4               |          |          |          | 15                |           |          |           | 32        |
| <b>Total</b>        | <b>25</b>         |          |          |           | <b>13</b>       |          |          |          | <b>26</b>         |           |          |           | <b>64</b> |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Washington Street |          |          |           | Chestnut Street |          |          |          | Washington Street |          |          |           | Total     |
|---------------------|-------------------|----------|----------|-----------|-----------------|----------|----------|----------|-------------------|----------|----------|-----------|-----------|
|                     | from East         |          |          |           | from South      |          |          |          | from West         |          |          |           |           |
|                     | Thru              | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right             | Thru     | U-Turn   | Total     |           |
| 10:30 AM            | 2                 | 1        | 0        | 3         | 2               | 2        | 0        | 4        | 0                 | 1        | 0        | 1         | 8         |
| 10:45 AM            | 1                 | 0        | 0        | 1         | 1               | 1        | 0        | 2        | 0                 | 5        | 0        | 5         | 8         |
| 11:00 AM            | 5                 | 1        | 0        | 6         | 0               | 1        | 0        | 1        | 0                 | 2        | 0        | 2         | 9         |
| 11:15 AM            | 4                 | 1        | 0        | 5         | 0               | 1        | 0        | 1        | 1                 | 1        | 0        | 2         | 8         |
| <b>Total Volume</b> | <b>12</b>         | <b>3</b> | <b>0</b> | <b>15</b> | <b>3</b>        | <b>5</b> | <b>0</b> | <b>8</b> | <b>1</b>          | <b>9</b> | <b>0</b> | <b>10</b> | <b>33</b> |
| % Approach Total    | 80.0              | 20.0     | 0.0      |           | 37.5            | 62.5     | 0.0      |          | 10.0              | 90.0     | 0.0      |           |           |
| PHF                 | 0.600             | 0.750    | 0.000    | 0.625     | 0.375           | 0.625    | 0.000    | 0.500    | 0.250             | 0.450    | 0.000    | 0.500     | 0.917     |
| Entering Leg        | 12                | 3        | 0        | 15        | 3               | 5        | 0        | 8        | 1                 | 9        | 0        | 10        | 33        |
| Exiting Leg         | 12                |          |          |           | 4               |          |          |          | 17                |          |          |           | 33        |
| <b>Total</b>        | <b>27</b>         |          |          |           | <b>12</b>       |          |          |          | <b>27</b>         |          |          |           | <b>66</b> |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|---------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|         | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|         | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 3:15 PM | 1                 | 1    | 0      | 2     | 0               | 1    | 0      | 1     | 0                 | 1    | 0      | 1     | 4     |
| 3:30 PM | 1                 | 1    | 0      | 2     | 1               | 0    | 0      | 1     | 0                 | 1    | 0      | 1     | 4     |
| 3:45 PM | 2                 | 1    | 0      | 3     | 1               | 0    | 0      | 1     | 0                 | 1    | 0      | 1     | 5     |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Single-Unit Trucks**

|                  | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                  | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                  | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 4:00 PM          | 0                 | 1     | 0      | 1     | 0               | 0     | 0      | 0     | 1                 | 1     | 0      | 2     | 3     |
| Total Volume     | 4                 | 4     | 0      | 8     | 2               | 1     | 0      | 3     | 1                 | 4     | 0      | 5     | 16    |
| % Approach Total | 50.0              | 50.0  | 0.0    |       | 66.7            | 33.3  | 0.0    |       | 20.0              | 80.0  | 0.0    |       |       |
| PHF              | 0.500             | 1.000 | 0.000  | 0.667 | 0.500           | 0.250 | 0.000  | 0.750 | 0.250             | 1.000 | 0.000  | 0.625 | 0.800 |
| Entering Leg     | 4                 | 4     | 0      | 8     | 2               | 1     | 0      | 3     | 1                 | 4     | 0      | 5     | 16    |
| Exiting Leg      |                   |       |        | 6     |                 |       |        | 5     |                   |       |        | 5     | 16    |
| Total            |                   |       |        | 14    |                 |       |        | 8     |                   |       |        | 10    | 32    |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|          | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|----------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|          | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|          | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 6:00 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 6:15 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 6:30 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 6:45 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| Total    | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 2     |
| 7:00 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 7:15 AM  | 0                 | 2    | 0      | 2     | 0               | 0    | 0      | 0     | 1                 | 0    | 0      | 1     | 3     |
| 7:30 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 7:45 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 1                 | 2    | 0      | 3     | 3     |
| Total    | 0                 | 2    | 0      | 2     | 0               | 0    | 0      | 0     | 2                 | 2    | 0      | 4     | 6     |
| 8:00 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 2     |
| 8:15 AM  | 0                 | 0    | 0      | 0     | 1               | 0    | 0      | 1     | 0                 | 0    | 0      | 0     | 1     |
| 8:30 AM  | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 1                 | 0    | 0      | 1     | 3     |
| 8:45 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| Total    | 2                 | 0    | 0      | 2     | 1               | 0    | 0      | 1     | 1                 | 2    | 0      | 3     | 6     |
| 9:00 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 9:15 AM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 9:30 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 9:45 AM  | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| Total    | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 3     |
| 10:00 AM | 2                 | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 2     |
| 10:15 AM | 3                 | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 4     |
| 10:30 AM | 0                 | 0    | 0      | 0     | 1               | 0    | 0      | 1     | 0                 | 0    | 0      | 0     | 1     |
| 10:45 AM | 0                 | 0    | 0      | 0     | 1               | 0    | 0      | 1     | 0                 | 2    | 0      | 2     | 3     |
| Total    | 5                 | 0    | 0      | 5     | 2               | 0    | 0      | 2     | 0                 | 3    | 0      | 3     | 10    |
| 11:00 AM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 11:15 AM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 11:30 AM | 1                 | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 2     |
| 11:45 AM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| Total    | 1                 | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 2     |
| 12:00 PM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 2    | 0      | 2     | 2     |
| 12:15 PM | 0                 | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                 | 0    | 0      | 0     | 1     |
| 12:30 PM | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 1                 | 2    | 0      | 3     | 4     |
| 12:45 PM | 1                 | 0    | 0      | 1     | 1               | 0    | 0      | 1     | 0                 | 1    | 0      | 1     | 3     |
| Total    | 2                 | 0    | 0      | 2     | 1               | 1    | 0      | 2     | 1                 | 5    | 0      | 6     | 10    |
| 1:00 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 1:15 PM  | 0                 | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                 | 0    | 0      | 0     | 1     |
| 1:30 PM  | 0                 | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 1                 | 0    | 0      | 1     | 2     |
| 1:45 PM  | 0                 | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| Total    | 0                 | 2    | 0      | 2     | 0               | 1    | 0      | 1     | 1                 | 0    | 0      | 1     | 4     |
| 2:00 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 2:15 PM  | 0                 | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                 | 2    | 0      | 2     | 3     |
| 2:30 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 2:45 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| Total    | 0                 | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                 | 2    | 0      | 2     | 3     |
| 3:00 PM  | 0                 | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 3:15 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 3:30 PM  | 0                 | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 3:45 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| Total    | 0                 | 2    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 2     |
| 4:00 PM  | 0                 | 0    | 0      | 0     | 1               | 0    | 0      | 1     | 0                 | 1    | 0      | 1     | 2     |
| 4:15 PM  | 1                 | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 3     |
| 4:30 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 4:45 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| Total    | 1                 | 1    | 0      | 2     | 1               | 0    | 0      | 1     | 0                 | 3    | 0      | 3     | 6     |
| 5:00 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 5:15 PM  | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|                    | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|--------------------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|                    | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|                    | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 5:30 PM            | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 5:45 PM            | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| <b>Total</b>       | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 6:00 PM            | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 6:15 PM            | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 6:30 PM            | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 1     |
| 6:45 PM            | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| <b>Total</b>       | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 1    | 0      | 1     | 2     |
| 7:00 PM            | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 7:15 PM            | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 7:30 PM            | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 7:45 PM            | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| <b>Total</b>       | 1                 | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| <b>Grand Total</b> | 17                | 8    | 0      | 25    | 5               | 3    | 0      | 8     | 5                 | 20   | 0      | 25    | 58    |
| Approach %         | 68.0              | 32.0 | 0.0    |       | 62.5            | 37.5 | 0.0    |       | 20.0              | 80.0 | 0.0    |       |       |
| Total %            | 29.3              | 13.8 | 0.0    | 43.1  | 8.6             | 5.2  | 0.0    | 13.8  | 8.6               | 34.5 | 0.0    | 43.1  |       |
| Exiting Leg Total  | 25                |      |        |       | 13              |      |        |       | 20                |      |        |       | 58    |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|---------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                     | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                     | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 7:45 AM             | 0                 | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 1                 | 2     | 0      | 3     | 3     |
| 8:00 AM             | 0                 | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 0                 | 2     | 0      | 2     | 2     |
| 8:15 AM             | 0                 | 0     | 0      | 0     | 1               | 0     | 0      | 1     | 0                 | 0     | 0      | 0     | 1     |
| 8:30 AM             | 2                 | 0     | 0      | 2     | 0               | 0     | 0      | 0     | 1                 | 0     | 0      | 1     | 3     |
| <b>Total Volume</b> | 2                 | 0     | 0      | 2     | 1               | 0     | 0      | 1     | 2                 | 4     | 0      | 6     | 9     |
| % Approach Total    | 100.0             | 0.0   | 0.0    |       | 100.0           | 0.0   | 0.0    |       | 33.3              | 66.7  | 0.0    |       |       |
| PHF                 | 0.250             | 0.000 | 0.000  | 0.250 | 0.250           | 0.000 | 0.000  | 0.250 | 0.500             | 0.500 | 0.000  | 0.500 | 0.750 |
| Entering Leg        | 2                 | 0     | 0      | 2     | 1               | 0     | 0      | 1     | 2                 | 4     | 0      | 6     | 9     |
| Exiting Leg         | 5                 |       |        |       | 2               |       |        |       | 2                 |       |        |       | 9     |
| <b>Total</b>        | 7                 |       |        |       | 3               |       |        |       | 8                 |       |        |       | 18    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|---------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                     | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                     | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 10:00 AM            | 2                 | 0     | 0      | 2     | 0               | 0     | 0      | 0     | 0                 | 0     | 0      | 0     | 2     |
| 10:15 AM            | 3                 | 0     | 0      | 3     | 0               | 0     | 0      | 0     | 0                 | 1     | 0      | 1     | 4     |
| 10:30 AM            | 0                 | 0     | 0      | 0     | 1               | 0     | 0      | 1     | 0                 | 0     | 0      | 0     | 1     |
| 10:45 AM            | 0                 | 0     | 0      | 0     | 1               | 0     | 0      | 1     | 0                 | 2     | 0      | 2     | 3     |
| <b>Total Volume</b> | 5                 | 0     | 0      | 5     | 2               | 0     | 0      | 2     | 0                 | 3     | 0      | 3     | 10    |
| % Approach Total    | 100.0             | 0.0   | 0.0    |       | 100.0           | 0.0   | 0.0    |       | 0.0               | 100.0 | 0.0    |       |       |
| PHF                 | 0.417             | 0.000 | 0.000  | 0.417 | 0.500           | 0.000 | 0.000  | 0.500 | 0.000             | 0.375 | 0.000  | 0.375 | 0.625 |
| Entering Leg        | 5                 | 0     | 0      | 5     | 2               | 0     | 0      | 2     | 0                 | 3     | 0      | 3     | 10    |
| Exiting Leg         | 5                 |       |        |       | 0               |       |        |       | 5                 |       |        |       | 10    |
| <b>Total</b>        | 10                |       |        |       | 2               |       |        |       | 8                 |       |        |       | 20    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Washington Street |      |        |       | Chestnut Street |      |        |       | Washington Street |      |        |       | Total |
|---------|-------------------|------|--------|-------|-----------------|------|--------|-------|-------------------|------|--------|-------|-------|
|         | from East         |      |        |       | from South      |      |        |       | from West         |      |        |       |       |
|         | Thru              | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right             | Thru | U-Turn | Total |       |
| 3:30 PM | 0                 | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 1     |
| 3:45 PM | 0                 | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                 | 0    | 0      | 0     | 0     |
| 4:00 PM | 0                 | 0    | 0      | 0     | 1               | 0    | 0      | 1     | 0                 | 1    | 0      | 1     | 2     |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Articulated Trucks**

|                  | Washington Street |       |        |       | Chestnut Street |       |        |       | Washington Street |       |        |       | Total |
|------------------|-------------------|-------|--------|-------|-----------------|-------|--------|-------|-------------------|-------|--------|-------|-------|
|                  | from East         |       |        |       | from South      |       |        |       | from West         |       |        |       |       |
|                  | Thru              | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right             | Thru  | U-Turn | Total |       |
| 4:15 PM          | 1                 | 1     | 0      | 2     | 0               | 0     | 0      | 0     | 0                 | 1     | 0      | 1     | 3     |
| Total Volume     | 1                 | 2     | 0      | 3     | 1               | 0     | 0      | 1     | 0                 | 2     | 0      | 2     | 6     |
| % Approach Total | 33.3              | 66.7  | 0.0    |       | 100.0           | 0.0   | 0.0    |       | 0.0               | 100.0 | 0.0    |       |       |
| PHF              | 0.250             | 0.500 | 0.000  | 0.375 | 0.250           | 0.000 | 0.000  | 0.250 | 0.000             | 0.500 | 0.000  | 0.500 | 0.500 |
| Entering Leg     | 1                 | 2     | 0      | 3     | 1               | 0     | 0      | 1     | 0                 | 2     | 0      | 2     | 6     |
| Exiting Leg      |                   |       |        | 3     |                 |       |        | 2     |                   |       |        | 1     | 6     |
| Total            |                   |       |        | 6     |                 |       |        | 3     |                   |       |        | 3     | 12    |

PDI File #: 218212 A  
 Location: S: Chestnut Street  
 Location: E: Washington Street W: Washington Street  
 City, State: West Newton, MA  
 Client: BETA/J. Centracchio  
 Site Code: 5472-14  
 Count Date: Tuesday, October 19, 2021  
 Start Time: 6:00 AM  
 End Time: 8:00 PM



**Bicycles (on Roadway and Crosswalks)**

|          | Washington Street |      |        |       |       |       |   | Chestnut Street |      |        |       |       |       | Washington Street |       |      |        |       |       | Total |       |   |
|----------|-------------------|------|--------|-------|-------|-------|---|-----------------|------|--------|-------|-------|-------|-------------------|-------|------|--------|-------|-------|-------|-------|---|
|          | from East         |      |        |       |       |       |   | from South      |      |        |       |       |       | from West         |       |      |        |       |       |       |       |   |
|          | Thru              | Left | U-Turn | CW-SB | CW-NB | Total |   | Right           | Left | U-Turn | CW-WB | CW-EB | Total |                   | Right | Thru | U-Turn | CW-NB | CW-SB |       | Total |   |
| 6:00 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 6:15 AM  | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| 6:30 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 6:45 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 1    | 0      | 0     | 0     | 0     | 0     | 1 |
| Total    | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 1    | 0      | 0     | 0     | 0     | 0     | 2 |
| 7:00 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 7:15 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 7:30 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 1    | 0      | 0     | 0     | 1     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| 7:45 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 1     | 0     | 1     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 2 |
| Total    | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 1    | 0      | 1     | 0     | 2     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 3 |
| 8:00 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 8:15 AM  | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 2 |
| 8:30 AM  | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 1                 | 1     | 0    | 0      | 0     | 0     | 0     | 2     | 3 |
| 8:45 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 2     | 0    | 0      | 0     | 0     | 0     | 2     | 2 |
| Total    | 2                 | 0    | 0      | 0     | 0     | 0     | 2 | 0               | 0    | 0      | 0     | 0     | 0     | 1                 | 4     | 0    | 0      | 0     | 0     | 0     | 5     | 7 |
| 9:00 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| 9:15 AM  | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 2 |
| 9:30 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 9:45 AM  | 0                 | 1    | 0      | 1     | 0     | 0     | 2 | 0               | 0    | 0      | 1     | 0     | 1     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 3 |
| Total    | 1                 | 1    | 0      | 1     | 0     | 0     | 3 | 1               | 0    | 0      | 1     | 0     | 2     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 6 |
| 10:00 AM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 10:15 AM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 1 |
| 10:30 AM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 10:45 AM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| Total    | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 1 |
| 11:00 AM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 1 |
| 11:15 AM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 11:30 AM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 11:45 AM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| Total    | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 1 |
| 12:00 PM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 12:15 PM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 12:30 PM | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 12:45 PM | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| Total    | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| 1:00 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 1:15 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 1     | 0     | 1     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| 1:30 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 1 |
| 1:45 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 1    | 0      | 0     | 0     | 1     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| Total    | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 1    | 0      | 1     | 0     | 2     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 3 |
| 2:00 PM  | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| 2:15 PM  | 0                 | 1    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| 2:30 PM  | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 1     | 0     | 1     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 3 |
| 2:45 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| Total    | 2                 | 1    | 0      | 0     | 0     | 0     | 3 | 0               | 0    | 0      | 1     | 0     | 1     | 0                 | 1     | 0    | 0      | 0     | 0     | 0     | 1     | 5 |
| 3:00 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 3:15 PM  | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 1     | 0     | 1     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 2 |
| 3:30 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 3     | 0    | 1      | 0     | 0     | 0     | 4     | 5 |
| 3:45 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| Total    | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 2               | 0    | 0      | 1     | 0     | 3     | 0                 | 3     | 0    | 1      | 0     | 0     | 0     | 4     | 8 |
| 4:00 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 2     | 0     | 2     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 2 |
| 4:15 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| 4:30 PM  | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| 4:45 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 0 |
| Total    | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 2     | 0     | 2     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 3 |
| 5:00 PM  | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |
| 5:15 PM  | 1                 | 0    | 0      | 0     | 0     | 0     | 1 | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0     | 0    | 0      | 0     | 0     | 0     | 0     | 1 |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



**Bicycles (on Roadway and Crosswalks)**

|                   | Washington Street |      |        |       |       |       | Chestnut Street |      |        |       |       |       | Washington Street |      |        |       |       |       | Total |
|-------------------|-------------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|-------------------|------|--------|-------|-------|-------|-------|
|                   | from East         |      |        |       |       |       | from South      |      |        |       |       |       | from West         |      |        |       |       |       |       |
|                   | Thru              | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right             | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 5:30 PM           | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 5:45 PM           | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| Total             | 2                 | 0    | 0      | 0     | 0     | 2     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 2     |
| 6:00 PM           | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1    | 0      | 0     | 0     | 1     | 1     |
| 6:15 PM           | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 6:30 PM           | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 6:45 PM           | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| Total             | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1    | 0      | 0     | 0     | 1     | 1     |
| 7:00 PM           | 1                 | 0    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:15 PM           | 0                 | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 0     |
| 7:30 PM           | 0                 | 0    | 0      | 1     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:45 PM           | 2                 | 0    | 0      | 0     | 0     | 2     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1    | 0      | 0     | 0     | 1     | 3     |
| Total             | 3                 | 0    | 0      | 1     | 0     | 4     | 0               | 0    | 0      | 0     | 0     | 0     | 0                 | 1    | 0      | 0     | 0     | 1     | 5     |
| Grand Total       | 14                | 2    | 0      | 2     | 0     | 18    | 3               | 2    | 0      | 7     | 0     | 12    | 1                 | 16   | 0      | 1     | 0     | 18    | 48    |
| Approach %        | 77.8              | 11.1 | 0.0    | 11.1  | 0.0   |       | 25.0            | 16.7 | 0.0    | 58.3  | 0.0   |       | 5.6               | 88.9 | 0.0    | 5.6   | 0.0   |       |       |
| Total %           | 29.2              | 4.2  | 0.0    | 4.2   | 0.0   | 37.5  | 6.3             | 4.2  | 0.0    | 14.6  | 0.0   | 25.0  | 2.1               | 33.3 | 0.0    | 2.1   | 0.0   | 37.5  |       |
| Exiting Leg Total | 21                |      |        |       |       |       | 10              |      |        |       |       |       | 17                |      |        |       |       |       | 48    |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                  | Washington Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Washington Street |       |        |       |       |       | Total |
|------------------|-------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|-------------------|-------|--------|-------|-------|-------|-------|
|                  | from East         |       |        |       |       |       | from South      |       |        |       |       |       | from West         |       |        |       |       |       |       |
|                  | Thru              | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 8:15 AM          | 1                 | 0     | 0      | 0     | 0     | 1     | 0               | 0     | 0      | 0     | 0     | 0     | 0                 | 1     | 0      | 0     | 0     | 1     | 2     |
| 8:30 AM          | 1                 | 0     | 0      | 0     | 0     | 1     | 0               | 0     | 0      | 0     | 0     | 0     | 1                 | 1     | 0      | 0     | 0     | 2     | 3     |
| 8:45 AM          | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                 | 2     | 0      | 0     | 0     | 2     | 2     |
| 9:00 AM          | 0                 | 0     | 0      | 0     | 0     | 0     | 1               | 0     | 0      | 0     | 0     | 1     | 0                 | 0     | 0      | 0     | 0     | 0     | 1     |
| Total Volume     | 2                 | 0     | 0      | 0     | 0     | 2     | 1               | 0     | 0      | 0     | 0     | 1     | 1                 | 4     | 0      | 0     | 0     | 5     | 8     |
| % Approach Total | 100.0             | 0.0   | 0.0    | 0.0   | 0.0   |       | 100.0           | 0.0   | 0.0    | 0.0   | 0.0   |       | 20.0              | 80.0  | 0.0    | 0.0   | 0.0   |       |       |
| PHF              | 0.500             | 0.000 | 0.000  | 0.000 | 0.000 | 0.500 | 0.250           | 0.000 | 0.000  | 0.000 | 0.000 | 0.250 | 0.250             | 0.500 | 0.000  | 0.000 | 0.000 | 0.625 | 0.667 |
| Entering Leg     | 2                 | 0     | 0      | 0     | 0     | 2     | 1               | 0     | 0      | 0     | 0     | 1     | 1                 | 4     | 0      | 0     | 0     | 5     | 8     |
| Exiting Leg      | 5                 |       |        |       |       |       | 1               |       |        |       |       |       | 2                 |       |        |       |       |       | 8     |
| Total            | 7                 |       |        |       |       |       | 2               |       |        |       |       |       | 7                 |       |        |       |       |       | 16    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Washington Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Washington Street |       |        |       |       |       | Total |
|------------------|-------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|-------------------|-------|--------|-------|-------|-------|-------|
|                  | from East         |       |        |       |       |       | from South      |       |        |       |       |       | from West         |       |        |       |       |       |       |
|                  | Thru              | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 1:45 PM          | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 1     | 0      | 0     | 0     | 1     | 0                 | 0     | 0      | 0     | 0     | 0     | 1     |
| 2:00 PM          | 1                 | 0     | 0      | 0     | 0     | 1     | 0               | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0      | 0     | 0     | 0     | 1     |
| 2:15 PM          | 0                 | 1     | 0      | 0     | 0     | 1     | 0               | 0     | 0      | 0     | 0     | 0     | 0                 | 0     | 0      | 0     | 0     | 0     | 1     |
| 2:30 PM          | 1                 | 0     | 0      | 0     | 0     | 1     | 0               | 0     | 0      | 1     | 0     | 1     | 0                 | 1     | 0      | 0     | 0     | 1     | 3     |
| Total Volume     | 2                 | 1     | 0      | 0     | 0     | 3     | 0               | 1     | 0      | 1     | 0     | 2     | 0                 | 1     | 0      | 0     | 0     | 1     | 6     |
| % Approach Total | 66.7              | 33.3  | 0.0    | 0.0   | 0.0   |       | 0.0             | 50.0  | 0.0    | 50.0  | 0.0   |       | 0.0               | 100.0 | 0.0    | 0.0   | 0.0   |       |       |
| PHF              | 0.500             | 0.250 | 0.000  | 0.000 | 0.000 | 0.750 | 0.000           | 0.250 | 0.000  | 0.250 | 0.000 | 0.500 | 0.000             | 0.250 | 0.000  | 0.000 | 0.000 | 0.250 | 0.500 |
| Entering Leg     | 2                 | 1     | 0      | 0     | 0     | 3     | 0               | 1     | 0      | 1     | 0     | 2     | 0                 | 1     | 0      | 0     | 0     | 1     | 6     |
| Exiting Leg      | 1                 |       |        |       |       |       | 2               |       |        |       |       |       | 3                 |       |        |       |       |       | 6     |
| Total            | 4                 |       |        |       |       |       | 4               |       |        |       |       |       | 4                 |       |        |       |       |       | 12    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Washington Street |      |        |       |       |       | Chestnut Street |      |        |       |       |       | Washington Street |      |        |       |       |       | Total |
|---------|-------------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|-------------------|------|--------|-------|-------|-------|-------|
|         | from East         |      |        |       |       |       | from South      |      |        |       |       |       | from West         |      |        |       |       |       |       |
|         | Thru              | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right             | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 3:15 PM | 1                 | 0    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 1     | 0     | 1     | 0                 | 0    | 0      | 0     | 0     | 0     | 2     |
| 3:30 PM | 0                 | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 3    | 0      | 1     | 0     | 4     | 5     |
| 3:45 PM | 0                 | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                 | 0    | 0      | 0     | 0     | 0     | 1     |



PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



**Bicycles (on Roadway and Crosswalks)**

|                  | Washington Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Washington Street |       |        |       |       |       | Total |
|------------------|-------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|-------------------|-------|--------|-------|-------|-------|-------|
|                  | from East         |       |        |       |       |       | from South      |       |        |       |       |       | from West         |       |        |       |       |       |       |
|                  | Thru              | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 4:00 PM          | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 2     | 0     | 2     | 0                 | 0     | 0      | 0     | 0     | 0     | 2     |
| Total Volume     | 1                 | 0     | 0      | 0     | 0     | 1     | 2               | 0     | 0      | 3     | 0     | 5     | 0                 | 3     | 0      | 1     | 0     | 4     | 10    |
| % Approach Total | 100.0             | 0.0   | 0.0    | 0.0   | 0.0   |       | 40.0            | 0.0   | 0.0    | 60.0  | 0.0   |       | 0.0               | 75.0  | 0.0    | 25.0  | 0.0   |       |       |
| PHF              | 0.250             | 0.000 | 0.000  | 0.000 | 0.000 | 0.250 | 0.500           | 0.000 | 0.000  | 0.375 | 0.000 | 0.625 | 0.000             | 0.250 | 0.000  | 0.250 | 0.000 | 0.250 | 0.500 |
| Entering Leg     | 1                 | 0     | 0      | 0     | 0     | 1     | 2               | 0     | 0      | 3     | 0     | 5     | 0                 | 3     | 0      | 1     | 0     | 4     | 10    |
| Exiting Leg      |                   |       |        |       |       | 5     |                 |       |        |       |       | 3     |                   |       |        |       |       | 2     | 10    |
| Total            |                   |       |        |       |       | 6     |                 |       |        |       |       | 8     |                   |       |        |       |       | 6     | 20    |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Pedestrians**

|          | Washington Street |      |        |       |       |       |       | Chestnut Street |        |       |       |       |       |      | Washington Street |       |       |       |    |    |  | Total |
|----------|-------------------|------|--------|-------|-------|-------|-------|-----------------|--------|-------|-------|-------|-------|------|-------------------|-------|-------|-------|----|----|--|-------|
|          | from East         |      |        |       |       |       |       | from South      |        |       |       |       |       |      | from West         |       |       |       |    |    |  |       |
|          | Thru              | Left | U-Turn | CW-SB | CW-NB | Total | Right | Left            | U-Turn | CW-WB | CW-EB | Total | Right | Thru | U-Turn            | CW-NB | CW-SB | Total |    |    |  |       |
| 6:00 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 0  |  |       |
| 6:15 AM  | 0                 | 0    | 0      | 0     | 1     | 1     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 1  |  |       |
| 6:30 AM  | 0                 | 0    | 0      | 1     | 0     | 1     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 1  |  |       |
| 6:45 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 0  |  |       |
| Total    | 0                 | 0    | 0      | 1     | 1     | 2     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 2  |  |       |
| 7:00 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 1     | 0     | 1     | 1  | 1  |  |       |
| 7:15 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 1     | 0     | 1     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 1  |  |       |
| 7:30 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 1     | 1     | 2     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 2  |  |       |
| 7:45 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 1     | 1     | 2     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 2  |  |       |
| Total    | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 3     | 2     | 5     | 0     | 0    | 0                 | 1     | 0     | 1     | 1  | 6  |  |       |
| 8:00 AM  | 0                 | 0    | 0      | 1     | 1     | 2     | 0     | 0               | 0      | 2     | 0     | 2     | 0     | 0    | 0                 | 0     | 1     | 1     | 1  | 5  |  |       |
| 8:15 AM  | 0                 | 0    | 0      | 3     | 2     | 5     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 1     | 1     | 1  | 6  |  |       |
| 8:30 AM  | 0                 | 0    | 0      | 0     | 1     | 1     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 1  |  |       |
| 8:45 AM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 0  |  |       |
| Total    | 0                 | 0    | 0      | 4     | 4     | 8     | 0     | 0               | 0      | 2     | 0     | 2     | 0     | 0    | 0                 | 0     | 2     | 2     | 2  | 12 |  |       |
| 9:00 AM  | 0                 | 0    | 0      | 0     | 1     | 1     | 0     | 0               | 0      | 2     | 1     | 3     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 4  |  |       |
| 9:15 AM  | 0                 | 0    | 0      | 1     | 2     | 3     | 0     | 0               | 0      | 0     | 1     | 1     | 0     | 0    | 0                 | 0     | 1     | 1     | 1  | 5  |  |       |
| 9:30 AM  | 0                 | 0    | 0      | 1     | 2     | 3     | 0     | 0               | 0      | 1     | 0     | 1     | 0     | 0    | 0                 | 2     | 2     | 4     | 8  | 8  |  |       |
| 9:45 AM  | 0                 | 0    | 0      | 2     | 1     | 3     | 0     | 0               | 0      | 1     | 0     | 1     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 4  |  |       |
| Total    | 0                 | 0    | 0      | 4     | 6     | 10    | 0     | 0               | 0      | 4     | 2     | 6     | 0     | 0    | 0                 | 2     | 3     | 5     | 21 | 21 |  |       |
| 10:00 AM | 0                 | 0    | 0      | 1     | 2     | 3     | 0     | 0               | 0      | 1     | 1     | 2     | 0     | 0    | 0                 | 1     | 0     | 1     | 1  | 6  |  |       |
| 10:15 AM | 0                 | 0    | 0      | 0     | 1     | 1     | 0     | 0               | 0      | 0     | 1     | 1     | 0     | 0    | 0                 | 1     | 1     | 2     | 4  | 4  |  |       |
| 10:30 AM | 0                 | 0    | 0      | 1     | 1     | 2     | 0     | 0               | 0      | 0     | 1     | 1     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 3  |  |       |
| 10:45 AM | 0                 | 0    | 0      | 3     | 1     | 4     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 4  |  |       |
| Total    | 0                 | 0    | 0      | 5     | 5     | 10    | 0     | 0               | 0      | 1     | 3     | 4     | 0     | 0    | 0                 | 2     | 1     | 3     | 17 | 17 |  |       |
| 11:00 AM | 0                 | 0    | 0      | 0     | 1     | 1     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 1     | 1     | 2     | 3  | 3  |  |       |
| 11:15 AM | 0                 | 0    | 0      | 0     | 1     | 1     | 0     | 0               | 0      | 1     | 0     | 1     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 2  |  |       |
| 11:30 AM | 0                 | 0    | 0      | 0     | 1     | 1     | 0     | 0               | 0      | 2     | 1     | 3     | 0     | 0    | 0                 | 0     | 0     | 0     | 0  | 4  |  |       |
| 11:45 AM | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 3     | 2     | 5     | 0     | 0    | 0                 | 1     | 2     | 3     | 8  | 8  |  |       |
| Total    | 0                 | 0    | 0      | 0     | 3     | 3     | 0     | 0               | 0      | 6     | 3     | 9     | 0     | 0    | 0                 | 2     | 3     | 5     | 17 | 17 |  |       |
| 12:00 PM | 0                 | 0    | 0      | 1     | 1     | 2     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 1     | 1     | 1  | 3  |  |       |
| 12:15 PM | 0                 | 0    | 0      | 2     | 1     | 3     | 0     | 0               | 0      | 4     | 0     | 4     | 0     | 0    | 0                 | 1     | 0     | 1     | 8  | 8  |  |       |
| 12:30 PM | 0                 | 0    | 0      | 1     | 1     | 2     | 0     | 0               | 0      | 3     | 1     | 4     | 0     | 0    | 0                 | 0     | 1     | 1     | 7  | 7  |  |       |
| 12:45 PM | 0                 | 0    | 0      | 2     | 2     | 4     | 0     | 0               | 0      | 2     | 5     | 7     | 0     | 0    | 0                 | 1     | 1     | 2     | 13 | 13 |  |       |
| Total    | 0                 | 0    | 0      | 6     | 5     | 11    | 0     | 0               | 0      | 9     | 6     | 15    | 0     | 0    | 0                 | 2     | 3     | 5     | 31 | 31 |  |       |
| 1:00 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 1     | 3     | 4     | 0     | 0    | 0                 | 0     | 0     | 0     | 4  | 4  |  |       |
| 1:15 PM  | 0                 | 0    | 0      | 2     | 1     | 3     | 0     | 0               | 0      | 2     | 2     | 4     | 0     | 0    | 0                 | 0     | 0     | 0     | 7  | 7  |  |       |
| 1:30 PM  | 0                 | 0    | 0      | 2     | 2     | 4     | 0     | 0               | 0      | 3     | 0     | 3     | 0     | 0    | 0                 | 0     | 0     | 0     | 7  | 7  |  |       |
| 1:45 PM  | 0                 | 0    | 0      | 3     | 3     | 6     | 0     | 0               | 0      | 2     | 2     | 4     | 0     | 0    | 0                 | 0     | 0     | 0     | 10 | 10 |  |       |
| Total    | 0                 | 0    | 0      | 7     | 6     | 13    | 0     | 0               | 0      | 8     | 7     | 15    | 0     | 0    | 0                 | 0     | 0     | 0     | 28 | 28 |  |       |
| 2:00 PM  | 0                 | 0    | 0      | 4     | 1     | 5     | 0     | 0               | 0      | 1     | 2     | 3     | 0     | 0    | 0                 | 0     | 0     | 0     | 8  | 8  |  |       |
| 2:15 PM  | 0                 | 0    | 0      | 1     | 0     | 1     | 0     | 0               | 0      | 2     | 0     | 2     | 0     | 0    | 0                 | 0     | 1     | 1     | 4  | 4  |  |       |
| 2:30 PM  | 0                 | 0    | 0      | 0     | 2     | 2     | 0     | 0               | 0      | 2     | 5     | 7     | 0     | 0    | 0                 | 0     | 0     | 0     | 9  | 9  |  |       |
| 2:45 PM  | 0                 | 0    | 0      | 1     | 1     | 2     | 0     | 0               | 0      | 2     | 2     | 4     | 0     | 0    | 0                 | 1     | 0     | 1     | 7  | 7  |  |       |
| Total    | 0                 | 0    | 0      | 6     | 4     | 10    | 0     | 0               | 0      | 7     | 9     | 16    | 0     | 0    | 0                 | 1     | 1     | 2     | 28 | 28 |  |       |
| 3:00 PM  | 0                 | 0    | 0      | 0     | 1     | 1     | 0     | 0               | 0      | 0     | 0     | 0     | 0     | 0    | 0                 | 0     | 0     | 0     | 1  | 1  |  |       |
| 3:15 PM  | 0                 | 0    | 0      | 0     | 2     | 2     | 0     | 0               | 0      | 1     | 3     | 4     | 0     | 0    | 0                 | 0     | 0     | 0     | 6  | 6  |  |       |
| 3:30 PM  | 0                 | 0    | 0      | 2     | 3     | 5     | 0     | 0               | 0      | 2     | 2     | 4     | 0     | 0    | 0                 | 0     | 0     | 0     | 9  | 9  |  |       |
| 3:45 PM  | 0                 | 0    | 0      | 1     | 2     | 3     | 0     | 0               | 0      | 5     | 1     | 6     | 0     | 0    | 0                 | 0     | 0     | 0     | 9  | 9  |  |       |
| Total    | 0                 | 0    | 0      | 3     | 8     | 11    | 0     | 0               | 0      | 8     | 6     | 14    | 0     | 0    | 0                 | 0     | 0     | 0     | 25 | 25 |  |       |
| 4:00 PM  | 0                 | 0    | 0      | 4     | 5     | 9     | 0     | 0               | 0      | 4     | 5     | 9     | 0     | 0    | 0                 | 0     | 0     | 0     | 18 | 18 |  |       |
| 4:15 PM  | 0                 | 0    | 0      | 2     | 1     | 3     | 0     | 0               | 0      | 2     | 2     | 4     | 0     | 0    | 0                 | 0     | 0     | 0     | 7  | 7  |  |       |
| 4:30 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 2     | 1     | 3     | 0     | 0    | 0                 | 0     | 0     | 0     | 3  | 3  |  |       |
| 4:45 PM  | 0                 | 0    | 0      | 1     | 4     | 5     | 0     | 0               | 0      | 0     | 1     | 1     | 0     | 0    | 0                 | 0     | 0     | 0     | 6  | 6  |  |       |
| Total    | 0                 | 0    | 0      | 7     | 10    | 17    | 0     | 0               | 0      | 8     | 9     | 17    | 0     | 0    | 0                 | 0     | 0     | 0     | 34 | 34 |  |       |
| 5:00 PM  | 0                 | 0    | 0      | 0     | 2     | 2     | 0     | 0               | 0      | 0     | 4     | 4     | 0     | 0    | 0                 | 0     | 0     | 0     | 6  | 6  |  |       |
| 5:15 PM  | 0                 | 0    | 0      | 0     | 0     | 0     | 0     | 0               | 0      | 0     | 2     | 2     | 0     | 0    | 0                 | 0     | 0     | 0     | 2  | 2  |  |       |

PDI File #: 218212 A  
 Location: S: Chestnut Street  
 Location: E: Washington Street W: Washington Street  
 City, State: West Newton, MA  
 Client: BETA/J. Centracchio  
 Site Code: 5472-14  
 Count Date: Tuesday, October 19, 2021  
 Start Time: 6:00 AM  
 End Time: 8:00 PM



**Pedestrians**

|                   | Washington Street |      |        |       |        |        | Chestnut Street |      |        |        |        |        | Washington Street |      |        |        |        |        | Total |
|-------------------|-------------------|------|--------|-------|--------|--------|-----------------|------|--------|--------|--------|--------|-------------------|------|--------|--------|--------|--------|-------|
|                   | from East         |      |        |       |        |        | from South      |      |        |        |        |        | from West         |      |        |        |        |        |       |
|                   | Thru              | Left | U-Turn | CW-SB | CW-NB  | Total  | Right           | Left | U-Turn | CW-WB  | CW-EB  | Total  | Right             | Thru | U-Turn | CW-NB  | CW-SB  | Total  |       |
| 5:30 PM           | 0                 | 0    | 0      | 4     | 0      | 4      | 0               | 0    | 0      | 3      | 0      | 3      | 0                 | 0    | 0      | 1      | 1      | 2      | 9     |
| 5:45 PM           | 0                 | 0    | 0      | 3     | 1      | 4      | 0               | 0    | 0      | 0      | 2      | 2      | 0                 | 0    | 0      | 0      | 0      | 0      | 6     |
| Total             | 0                 | 0    | 0      | 7     | 3      | 10     | 0               | 0    | 0      | 3      | 8      | 11     | 0                 | 0    | 0      | 1      | 1      | 2      | 23    |
| 6:00 PM           | 0                 | 0    | 0      | 2     | 3      | 5      | 0               | 0    | 0      | 1      | 1      | 2      | 0                 | 0    | 0      | 1      | 0      | 1      | 8     |
| 6:15 PM           | 0                 | 0    | 0      | 1     | 1      | 2      | 0               | 0    | 0      | 0      | 2      | 2      | 0                 | 0    | 0      | 0      | 0      | 0      | 4     |
| 6:30 PM           | 0                 | 0    | 0      | 0     | 3      | 3      | 0               | 0    | 0      | 0      | 0      | 0      | 0                 | 0    | 0      | 0      | 0      | 0      | 3     |
| 6:45 PM           | 0                 | 0    | 0      | 1     | 1      | 2      | 0               | 0    | 0      | 1      | 0      | 1      | 0                 | 0    | 0      | 0      | 0      | 0      | 3     |
| Total             | 0                 | 0    | 0      | 4     | 8      | 12     | 0               | 0    | 0      | 2      | 3      | 5      | 0                 | 0    | 0      | 1      | 0      | 1      | 18    |
| 7:00 PM           | 0                 | 0    | 0      | 0     | 6      | 6      | 0               | 0    | 0      | 0      | 2      | 2      | 0                 | 0    | 0      | 0      | 0      | 0      | 8     |
| 7:15 PM           | 0                 | 0    | 0      | 0     | 2      | 2      | 0               | 0    | 0      | 0      | 0      | 0      | 0                 | 0    | 0      | 0      | 1      | 1      | 3     |
| 7:30 PM           | 0                 | 0    | 0      | 0     | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0                 | 0    | 0      | 0      | 0      | 0      | 0     |
| 7:45 PM           | 0                 | 0    | 0      | 0     | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0      | 0                 | 0    | 0      | 0      | 0      | 0      | 0     |
| Total             | 0                 | 0    | 0      | 0     | 8      | 8      | 0               | 0    | 0      | 0      | 2      | 2      | 0                 | 0    | 0      | 0      | 1      | 1      | 11    |
| Grand Total       | 0                 | 0    | 0      | 54    | 71     | 125    | 0               | 0    | 0      | 61     | 60     | 121    | 0                 | 0    | 0      | 12     | 15     | 27     | 273   |
| Approach %        | 0                 | 0    | 0      | 43.2  | 56.8   |        | 0               | 0    | 0      | 50.413 | 49.587 |        | 0                 | 0    | 0      | 44.444 | 55.556 |        |       |
| Total %           | 0                 | 0    | 0      | 19.78 | 26.007 | 45.788 | 0               | 0    | 0      | 22.344 | 21.978 | 44.322 | 0                 | 0    | 0      | 4.3956 | 5.4945 | 9.8901 |       |
| Exiting Leg Total | 125               |      |        |       |        |        | 121             |      |        |        |        |        | 27                |      |        |        |        |        | 273   |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                  | Washington Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Washington Street |       |        |       |       |       | Total |
|------------------|-------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|-------------------|-------|--------|-------|-------|-------|-------|
|                  | from East         |       |        |       |       |       | from South      |       |        |       |       |       | from West         |       |        |       |       |       |       |
|                  | Thru              | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 9:15 AM          | 0                 | 0     | 0      | 1     | 2     | 3     | 0               | 0     | 0      | 0     | 1     | 1     | 0                 | 0     | 0      | 0     | 1     | 1     | 5     |
| 9:30 AM          | 0                 | 0     | 0      | 1     | 2     | 3     | 0               | 0     | 0      | 1     | 0     | 1     | 0                 | 0     | 0      | 2     | 2     | 4     | 8     |
| 9:45 AM          | 0                 | 0     | 0      | 2     | 1     | 3     | 0               | 0     | 0      | 1     | 0     | 1     | 0                 | 0     | 0      | 0     | 0     | 0     | 4     |
| 10:00 AM         | 0                 | 0     | 0      | 1     | 2     | 3     | 0               | 0     | 0      | 1     | 1     | 2     | 0                 | 0     | 0      | 1     | 0     | 1     | 6     |
| Total Volume     | 0                 | 0     | 0      | 5     | 7     | 12    | 0               | 0     | 0      | 3     | 2     | 5     | 0                 | 0     | 0      | 3     | 3     | 6     | 23    |
| % Approach Total | 0.0               | 0.0   | 0.0    | 41.7  | 58.3  |       | 0.0             | 0.0   | 0.0    | 60.0  | 40.0  |       | 0.0               | 0.0   | 0.0    | 50.0  | 50.0  |       |       |
| PHF              | 0.000             | 0.000 | 0.000  | 0.625 | 0.875 | 1.000 | 0.000           | 0.000 | 0.000  | 0.750 | 0.500 | 0.625 | 0.000             | 0.000 | 0.000  | 0.375 | 0.375 | 0.375 | 0.719 |
| Entering Leg     | 0                 | 0     | 0      | 5     | 7     | 12    | 0               | 0     | 0      | 3     | 2     | 5     | 0                 | 0     | 0      | 3     | 3     | 6     | 23    |
| Exiting Leg      | 12                |       |        |       |       |       | 5               |       |        |       |       |       | 6                 |       |        |       |       |       | 23    |
| Total            | 24                |       |        |       |       |       | 10              |       |        |       |       |       | 12                |       |        |       |       |       | 46    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Washington Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Washington Street |       |        |       |       |       | Total |
|------------------|-------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|-------------------|-------|--------|-------|-------|-------|-------|
|                  | from East         |       |        |       |       |       | from South      |       |        |       |       |       | from West         |       |        |       |       |       |       |
|                  | Thru              | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 12:15 PM         | 0                 | 0     | 0      | 2     | 1     | 3     | 0               | 0     | 0      | 4     | 0     | 4     | 0                 | 0     | 0      | 1     | 0     | 1     | 8     |
| 12:30 PM         | 0                 | 0     | 0      | 1     | 1     | 2     | 0               | 0     | 0      | 3     | 1     | 4     | 0                 | 0     | 0      | 0     | 1     | 1     | 7     |
| 12:45 PM         | 0                 | 0     | 0      | 2     | 2     | 4     | 0               | 0     | 0      | 2     | 5     | 7     | 0                 | 0     | 0      | 1     | 1     | 2     | 13    |
| 1:00 PM          | 0                 | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 1     | 3     | 4     | 0                 | 0     | 0      | 0     | 0     | 0     | 4     |
| Total Volume     | 0                 | 0     | 0      | 5     | 4     | 9     | 0               | 0     | 0      | 10    | 9     | 19    | 0                 | 0     | 0      | 2     | 2     | 4     | 32    |
| % Approach Total | 0.0               | 0.0   | 0.0    | 55.6  | 44.4  |       | 0.0             | 0.0   | 0.0    | 52.6  | 47.4  |       | 0.0               | 0.0   | 0.0    | 50.0  | 50.0  |       |       |
| PHF              | 0.000             | 0.000 | 0.000  | 0.625 | 0.500 | 0.563 | 0.000           | 0.000 | 0.000  | 0.625 | 0.450 | 0.679 | 0.000             | 0.000 | 0.000  | 0.500 | 0.500 | 0.500 | 0.615 |
| Entering Leg     | 0                 | 0     | 0      | 5     | 4     | 9     | 0               | 0     | 0      | 10    | 9     | 19    | 0                 | 0     | 0      | 2     | 2     | 4     | 32    |
| Exiting Leg      | 9                 |       |        |       |       |       | 19              |       |        |       |       |       | 4                 |       |        |       |       |       | 32    |
| Total            | 18                |       |        |       |       |       | 38              |       |        |       |       |       | 8                 |       |        |       |       |       | 64    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Washington Street |      |        |       |       |       | Chestnut Street |      |        |       |       |       | Washington Street |      |        |       |       |       | Total |
|---------|-------------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|-------------------|------|--------|-------|-------|-------|-------|
|         | from East         |      |        |       |       |       | from South      |      |        |       |       |       | from West         |      |        |       |       |       |       |
|         | Thru              | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right             | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 3:30 PM | 0                 | 0    | 0      | 2     | 3     | 5     | 0               | 0    | 0      | 2     | 2     | 4     | 0                 | 0    | 0      | 0     | 0     | 0     | 9     |
| 3:45 PM | 0                 | 0    | 0      | 1     | 2     | 3     | 0               | 0    | 0      | 5     | 1     | 6     | 0                 | 0    | 0      | 0     | 0     | 0     | 9     |
| 4:00 PM | 0                 | 0    | 0      | 4     | 5     | 9     | 0               | 0    | 0      | 4     | 5     | 9     | 0                 | 0    | 0      | 0     | 0     | 0     | 18    |

PDI File #: **218212 A**  
 Location: **S: Chestnut Street**  
 Location: **E: Washington Street W: Washington Street**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



**Pedestrians**

|                  | Washington Street |       |        |       |       |       | Chestnut Street |       |        |       |       |       | Washington Street |       |        |       |       |       | Total |
|------------------|-------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|-------------------|-------|--------|-------|-------|-------|-------|
|                  | from East         |       |        |       |       |       | from South      |       |        |       |       |       | from West         |       |        |       |       |       |       |
|                  | Thru              | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right             | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 4:15 PM          | 0                 | 0     | 0      | 2     | 1     | 3     | 0               | 0     | 0      | 2     | 2     | 4     | 0                 | 0     | 0      | 0     | 0     | 0     | 7     |
| Total Volume     | 0                 | 0     | 0      | 9     | 11    | 20    | 0               | 0     | 0      | 13    | 10    | 23    | 0                 | 0     | 0      | 0     | 0     | 0     | 43    |
| % Approach Total | 0.0               | 0.0   | 0.0    | 45.0  | 55.0  |       | 0.0             | 0.0   | 0.0    | 56.5  | 43.5  |       | 0.0               | 0.0   | 0.0    | 0.0   | 0.0   |       |       |
| PHF              | 0.000             | 0.000 | 0.000  | 0.563 | 0.550 | 0.556 | 0.000           | 0.000 | 0.000  | 0.650 | 0.500 | 0.639 | 0.000             | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.597 |
| Entering Leg     | 0                 | 0     | 0      | 9     | 11    | 20    | 0               | 0     | 0      | 13    | 10    | 23    | 0                 | 0     | 0      | 0     | 0     | 0     | 43    |
| Exiting Leg      |                   |       |        |       |       | 20    |                 |       |        |       |       | 23    |                   |       |        |       |       |       | 43    |
| Total            |                   |       |        |       |       | 40    |                 |       |        |       |       | 46    |                   |       |        |       |       |       | 86    |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|          | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|----------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|          | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|          | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 6:00 AM  | 7              | 0    | 0         | 0      | 7     | 2                           | 13         | 0         | 0      | 15    | 0                 | 4     | 12   | 0      | 16    | 16                           | 29        | 0    | 0      | 45    | 83    |
| 6:15 AM  | 7              | 1    | 0         | 0      | 8     | 1                           | 23         | 0         | 0      | 24    | 0                 | 9     | 20   | 0      | 29    | 29                           | 25        | 0    | 0      | 54    | 115   |
| 6:30 AM  | 13             | 0    | 0         | 0      | 13    | 3                           | 38         | 0         | 0      | 41    | 0                 | 10    | 19   | 0      | 29    | 39                           | 37        | 0    | 0      | 76    | 159   |
| 6:45 AM  | 14             | 0    | 0         | 0      | 14    | 3                           | 37         | 0         | 0      | 40    | 0                 | 9     | 25   | 0      | 34    | 54                           | 44        | 0    | 0      | 98    | 186   |
| Total    | 41             | 1    | 0         | 0      | 42    | 9                           | 111        | 0         | 0      | 120   | 0                 | 32    | 76   | 0      | 108   | 138                          | 135       | 0    | 0      | 273   | 543   |
| 7:00 AM  | 26             | 0    | 0         | 0      | 26    | 2                           | 30         | 0         | 0      | 32    | 0                 | 10    | 19   | 0      | 29    | 57                           | 32        | 0    | 0      | 89    | 176   |
| 7:15 AM  | 30             | 0    | 0         | 0      | 30    | 1                           | 45         | 0         | 0      | 46    | 1                 | 28    | 19   | 0      | 48    | 79                           | 56        | 0    | 0      | 135   | 259   |
| 7:30 AM  | 43             | 0    | 0         | 0      | 43    | 4                           | 41         | 0         | 0      | 45    | 0                 | 31    | 27   | 0      | 58    | 111                          | 66        | 0    | 0      | 177   | 323   |
| 7:45 AM  | 42             | 0    | 0         | 0      | 42    | 12                          | 47         | 0         | 0      | 59    | 1                 | 33    | 50   | 0      | 84    | 132                          | 42        | 0    | 0      | 174   | 359   |
| Total    | 141            | 0    | 0         | 0      | 141   | 19                          | 163        | 0         | 0      | 182   | 2                 | 102   | 115  | 0      | 219   | 379                          | 196       | 0    | 0      | 575   | 1117  |
| 8:00 AM  | 41             | 1    | 0         | 0      | 42    | 10                          | 41         | 0         | 0      | 51    | 0                 | 24    | 55   | 0      | 79    | 92                           | 82        | 0    | 0      | 174   | 346   |
| 8:15 AM  | 34             | 0    | 0         | 0      | 34    | 2                           | 28         | 0         | 0      | 30    | 0                 | 37    | 28   | 0      | 65    | 108                          | 63        | 1    | 0      | 172   | 301   |
| 8:30 AM  | 44             | 0    | 0         | 0      | 44    | 7                           | 58         | 0         | 0      | 65    | 1                 | 30    | 37   | 0      | 68    | 117                          | 66        | 0    | 0      | 183   | 360   |
| 8:45 AM  | 33             | 0    | 0         | 0      | 33    | 1                           | 34         | 0         | 0      | 35    | 0                 | 51    | 52   | 0      | 103   | 105                          | 55        | 1    | 0      | 161   | 332   |
| Total    | 152            | 1    | 0         | 0      | 153   | 20                          | 161        | 0         | 0      | 181   | 1                 | 142   | 172  | 0      | 315   | 422                          | 266       | 2    | 0      | 690   | 1339  |
| 9:00 AM  | 29             | 0    | 0         | 0      | 29    | 4                           | 40         | 0         | 0      | 44    | 1                 | 39    | 37   | 0      | 77    | 87                           | 64        | 3    | 0      | 154   | 304   |
| 9:15 AM  | 25             | 0    | 0         | 0      | 25    | 3                           | 35         | 0         | 0      | 38    | 0                 | 32    | 48   | 0      | 80    | 62                           | 59        | 0    | 0      | 121   | 264   |
| 9:30 AM  | 22             | 0    | 0         | 0      | 22    | 4                           | 44         | 0         | 0      | 48    | 0                 | 22    | 38   | 0      | 60    | 69                           | 60        | 0    | 0      | 129   | 259   |
| 9:45 AM  | 23             | 0    | 0         | 0      | 23    | 4                           | 29         | 1         | 0      | 34    | 0                 | 37    | 38   | 0      | 75    | 82                           | 56        | 2    | 0      | 140   | 272   |
| Total    | 99             | 0    | 0         | 0      | 99    | 15                          | 148        | 1         | 0      | 164   | 1                 | 130   | 161  | 0      | 292   | 300                          | 239       | 5    | 0      | 544   | 1099  |
| 10:00 AM | 23             | 0    | 0         | 0      | 23    | 3                           | 38         | 0         | 0      | 41    | 1                 | 32    | 45   | 0      | 78    | 72                           | 58        | 0    | 0      | 130   | 272   |
| 10:15 AM | 36             | 0    | 0         | 0      | 36    | 3                           | 36         | 0         | 0      | 39    | 2                 | 32    | 42   | 0      | 76    | 47                           | 52        | 0    | 0      | 99    | 250   |
| 10:30 AM | 22             | 0    | 0         | 0      | 22    | 2                           | 39         | 0         | 0      | 41    | 0                 | 27    | 37   | 0      | 64    | 47                           | 48        | 0    | 0      | 95    | 222   |
| 10:45 AM | 34             | 0    | 0         | 0      | 34    | 4                           | 35         | 0         | 0      | 39    | 1                 | 21    | 45   | 0      | 67    | 62                           | 51        | 0    | 0      | 113   | 253   |
| Total    | 115            | 0    | 0         | 0      | 115   | 12                          | 148        | 0         | 0      | 160   | 4                 | 112   | 169  | 0      | 285   | 228                          | 209       | 0    | 0      | 437   | 997   |
| 11:00 AM | 36             | 0    | 0         | 0      | 36    | 3                           | 46         | 0         | 0      | 49    | 2                 | 25    | 29   | 0      | 56    | 58                           | 45        | 0    | 0      | 103   | 244   |
| 11:15 AM | 12             | 0    | 0         | 0      | 12    | 5                           | 31         | 0         | 0      | 36    | 0                 | 31    | 48   | 0      | 79    | 65                           | 47        | 0    | 0      | 112   | 239   |
| 11:30 AM | 33             | 0    | 0         | 0      | 33    | 2                           | 32         | 0         | 0      | 34    | 2                 | 27    | 43   | 0      | 72    | 56                           | 48        | 2    | 0      | 106   | 245   |
| 11:45 AM | 27             | 0    | 0         | 0      | 27    | 1                           | 48         | 1         | 0      | 50    | 0                 | 25    | 42   | 0      | 67    | 58                           | 49        | 0    | 0      | 107   | 251   |
| Total    | 108            | 0    | 0         | 0      | 108   | 11                          | 157        | 1         | 0      | 169   | 4                 | 108   | 162  | 0      | 274   | 237                          | 189       | 2    | 0      | 428   | 979   |
| 12:00 PM | 32             | 0    | 0         | 0      | 32    | 6                           | 46         | 0         | 0      | 52    | 0                 | 34    | 44   | 0      | 78    | 80                           | 44        | 2    | 0      | 126   | 288   |
| 12:15 PM | 33             | 0    | 0         | 0      | 33    | 6                           | 53         | 0         | 0      | 59    | 1                 | 39    | 47   | 0      | 87    | 71                           | 41        | 2    | 0      | 114   | 293   |
| 12:30 PM | 41             | 0    | 1         | 0      | 42    | 7                           | 29         | 1         | 0      | 37    | 1                 | 30    | 68   | 0      | 99    | 64                           | 38        | 0    | 1      | 103   | 281   |
| 12:45 PM | 29             | 0    | 0         | 0      | 29    | 8                           | 27         | 0         | 0      | 35    | 0                 | 38    | 47   | 0      | 85    | 71                           | 58        | 0    | 1      | 130   | 279   |
| Total    | 135            | 0    | 1         | 0      | 136   | 27                          | 155        | 1         | 0      | 183   | 2                 | 141   | 206  | 0      | 349   | 286                          | 181       | 4    | 2      | 473   | 1141  |
| 1:00 PM  | 34             | 0    | 0         | 0      | 34    | 2                           | 42         | 0         | 0      | 44    | 0                 | 33    | 43   | 0      | 76    | 66                           | 47        | 0    | 0      | 113   | 267   |
| 1:15 PM  | 30             | 0    | 0         | 0      | 30    | 8                           | 38         | 1         | 0      | 47    | 0                 | 22    | 56   | 0      | 78    | 66                           | 45        | 1    | 0      | 112   | 267   |
| 1:30 PM  | 43             | 0    | 0         | 0      | 43    | 7                           | 43         | 0         | 0      | 50    | 1                 | 34    | 52   | 0      | 87    | 66                           | 44        | 0    | 0      | 110   | 290   |
| 1:45 PM  | 22             | 0    | 0         | 0      | 22    | 5                           | 47         | 0         | 0      | 52    | 2                 | 29    | 65   | 0      | 96    | 55                           | 57        | 0    | 0      | 112   | 282   |
| Total    | 129            | 0    | 0         | 0      | 129   | 22                          | 170        | 1         | 0      | 193   | 3                 | 118   | 216  | 0      | 337   | 253                          | 193       | 1    | 0      | 447   | 1106  |
| 2:00 PM  | 29             | 0    | 0         | 0      | 29    | 5                           | 43         | 0         | 0      | 48    | 0                 | 42    | 59   | 0      | 101   | 74                           | 40        | 1    | 0      | 115   | 293   |
| 2:15 PM  | 37             | 0    | 0         | 0      | 37    | 4                           | 57         | 0         | 0      | 61    | 0                 | 30    | 43   | 0      | 73    | 93                           | 53        | 0    | 0      | 146   | 317   |
| 2:30 PM  | 45             | 0    | 0         | 0      | 45    | 12                          | 64         | 0         | 0      | 76    | 3                 | 31    | 51   | 0      | 85    | 73                           | 49        | 0    | 0      | 122   | 328   |
| 2:45 PM  | 28             | 0    | 0         | 0      | 28    | 6                           | 41         | 0         | 0      | 47    | 0                 | 54    | 68   | 0      | 122   | 56                           | 46        | 0    | 0      | 102   | 299   |
| Total    | 139            | 0    | 0         | 0      | 139   | 27                          | 205        | 0         | 0      | 232   | 3                 | 157   | 221  | 0      | 381   | 296                          | 188       | 1    | 0      | 485   | 1237  |
| 3:00 PM  | 30             | 0    | 0         | 0      | 30    | 8                           | 60         | 0         | 0      | 68    | 4                 | 37    | 50   | 0      | 91    | 66                           | 62        | 1    | 0      | 129   | 318   |
| 3:15 PM  | 32             | 1    | 0         | 0      | 33    | 10                          | 44         | 0         | 0      | 54    | 0                 | 44    | 58   | 0      | 102   | 56                           | 56        | 0    | 0      | 112   | 301   |
| 3:30 PM  | 30             | 0    | 0         | 0      | 30    | 3                           | 57         | 0         | 0      | 60    | 1                 | 40    | 44   | 0      | 85    | 98                           | 70        | 0    | 0      | 168   | 343   |
| 3:45 PM  | 31             | 0    | 0         | 0      | 31    | 8                           | 45         | 0         | 0      | 53    | 1                 | 39    | 75   | 0      | 115   | 60                           | 53        | 0    | 0      | 113   | 312   |
| Total    | 123            | 1    | 0         | 0      | 124   | 29                          | 206        | 0         | 0      | 235   | 6                 | 160   | 227  | 0      | 393   | 280                          | 241       | 1    | 0      | 522   | 1274  |
| 4:00 PM  | 30             | 0    | 0         | 0      | 30    | 8                           | 59         | 0         | 0      | 67    | 0                 | 40    | 48   | 0      | 88    | 74                           | 77        | 2    | 0      | 153   | 338   |
| 4:15 PM  | 24             | 0    | 0         | 0      | 24    | 7                           | 74         | 0         | 0      | 81    | 0                 | 45    | 60   | 0      | 105   | 78                           | 59        | 0    | 0      | 137   | 347   |
| 4:30 PM  | 28             | 1    | 0         | 0      | 29    | 7                           | 48         | 0         | 0      | 55    | 1                 | 52    | 51   | 0      | 104   | 82                           | 59        | 0    | 0      | 141   | 329   |
| 4:45 PM  | 23             | 0    | 0         | 0      | 23    | 7                           | 46         | 0         | 0      | 53    | 0                 | 42    | 51   | 0      | 93    | 80                           | 71        | 1    | 0      | 152   | 321   |
| Total    | 105            | 1    | 0         | 0      | 106   | 29                          | 227        | 0         | 0      | 256   | 1                 | 179   | 210  | 0      | 390   | 314                          | 266       | 3    | 0      | 583   | 1335  |
| 5:00 PM  | 28             | 0    | 0         | 0      | 28    | 8                           | 76         | 0         | 0      | 84    | 1                 | 46    | 36   | 0      | 83    | 73                           | 67        | 0    | 0      | 140   | 335   |
| 5:15 PM  | 39             | 0    | 0         | 0      | 39    | 15                          | 44         | 0         | 0      | 59    | 0                 | 38    | 58   | 0      | 96    | 88                           | 62        | 2    | 0      | 152   | 346   |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Waltham Street |          |           |          |            | Watertown Street (Route 16) |            |           |          |            | Washington Street |            |            |          |            | Washington Street (Route 16) |            |          |          |            | Total       |
|-------------------|----------------|----------|-----------|----------|------------|-----------------------------|------------|-----------|----------|------------|-------------------|------------|------------|----------|------------|------------------------------|------------|----------|----------|------------|-------------|
|                   | from North     |          |           |          |            | from Northeast              |            |           |          |            | from East         |            |            |          |            | from West                    |            |          |          |            |             |
|                   | Right          | Left     | Hard Left | U-Turn   | Total      | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total      | Hard Right        | Right      | Thru       | U-Turn   | Total      | Thru                         | Bear Left  | Left     | U-Turn   | Total      |             |
| 5:30 PM           | 36             | 0        | 0         | 0        | 36         | 5                           | 55         | 0         | 0        | 60         | 1                 | 45         | 59         | 0        | 105        | 97                           | 82         | 1        | 0        | 180        | 381         |
| 5:45 PM           | 32             | 0        | 0         | 0        | 32         | 8                           | 67         | 0         | 0        | 75         | 2                 | 45         | 55         | 0        | 102        | 104                          | 75         | 0        | 0        | 179        | 388         |
| <b>Total</b>      | <b>135</b>     | <b>0</b> | <b>0</b>  | <b>0</b> | <b>135</b> | <b>36</b>                   | <b>242</b> | <b>0</b>  | <b>0</b> | <b>278</b> | <b>4</b>          | <b>174</b> | <b>208</b> | <b>0</b> | <b>386</b> | <b>362</b>                   | <b>286</b> | <b>3</b> | <b>0</b> | <b>651</b> | <b>1450</b> |
| 6:00 PM           | 37             | 1        | 0         | 0        | 38         | 9                           | 70         | 0         | 0        | 79         | 3                 | 42         | 53         | 0        | 98         | 123                          | 74         | 1        | 0        | 198        | 413         |
| 6:15 PM           | 27             | 0        | 0         | 0        | 27         | 8                           | 56         | 0         | 0        | 64         | 0                 | 52         | 59         | 0        | 111        | 90                           | 63         | 0        | 0        | 153        | 355         |
| 6:30 PM           | 25             | 0        | 0         | 0        | 25         | 4                           | 67         | 0         | 0        | 71         | 0                 | 40         | 50         | 0        | 90         | 89                           | 66         | 0        | 0        | 155        | 341         |
| 6:45 PM           | 21             | 0        | 0         | 0        | 21         | 5                           | 41         | 0         | 0        | 46         | 2                 | 51         | 60         | 0        | 113        | 70                           | 46         | 0        | 0        | 116        | 296         |
| <b>Total</b>      | <b>110</b>     | <b>1</b> | <b>0</b>  | <b>0</b> | <b>111</b> | <b>26</b>                   | <b>234</b> | <b>0</b>  | <b>0</b> | <b>260</b> | <b>5</b>          | <b>185</b> | <b>222</b> | <b>0</b> | <b>412</b> | <b>372</b>                   | <b>249</b> | <b>1</b> | <b>0</b> | <b>622</b> | <b>1405</b> |
| 7:00 PM           | 27             | 0        | 0         | 0        | 27         | 9                           | 48         | 0         | 0        | 57         | 0                 | 34         | 48         | 0        | 82         | 52                           | 49         | 0        | 0        | 101        | 267         |
| 7:15 PM           | 33             | 0        | 0         | 0        | 33         | 3                           | 27         | 0         | 0        | 30         | 0                 | 35         | 38         | 0        | 73         | 59                           | 50         | 2        | 0        | 111        | 247         |
| 7:30 PM           | 20             | 0        | 0         | 0        | 20         | 4                           | 31         | 0         | 0        | 35         | 1                 | 27         | 42         | 0        | 70         | 45                           | 36         | 0        | 0        | 81         | 206         |
| 7:45 PM           | 21             | 0        | 0         | 0        | 21         | 1                           | 30         | 0         | 0        | 31         | 2                 | 20         | 28         | 0        | 50         | 29                           | 29         | 0        | 0        | 58         | 160         |
| <b>Total</b>      | <b>101</b>     | <b>0</b> | <b>0</b>  | <b>0</b> | <b>101</b> | <b>17</b>                   | <b>136</b> | <b>0</b>  | <b>0</b> | <b>153</b> | <b>3</b>          | <b>116</b> | <b>156</b> | <b>0</b> | <b>275</b> | <b>185</b>                   | <b>164</b> | <b>2</b> | <b>0</b> | <b>351</b> | <b>880</b>  |
| Grand Total       | 1633           | 5        | 1         | 0        | 1639       | 299                         | 2463       | 4         | 0        | 2766       | 39                | 1856       | 2521       | 0        | 4416       | 4052                         | 3002       | 25       | 2        | 7081       | 15902       |
| Approach %        | 99.6           | 0.3      | 0.1       | 0.0      |            | 10.8                        | 89.0       | 0.1       | 0.0      |            | 0.9               | 42.0       | 57.1       | 0.0      |            | 57.2                         | 42.4       | 0.4      | 0.0      |            |             |
| Total %           | 10.3           | 0.0      | 0.0       | 0.0      | 10.3       | 1.9                         | 15.5       | 0.0       | 0.0      | 17.4       | 0.2               | 11.7       | 15.9       | 0.0      | 27.8       | 25.5                         | 18.9       | 0.2      | 0.0      | 44.5       |             |
| Exiting Leg Total | 2180           |          |           |          |            | 3042                        |            |           |          |            | 4061              |            |            |          |            | 6619                         |            |          |          |            | 15902       |
| Cars              | 1546           | 5        | 1         | 0        | 1552       | 287                         | 2365       | 3         | 0        | 2655       | 39                | 1818       | 2408       | 0        | 4265       | 3891                         | 2861       | 24       | 2        | 6778       | 15250       |
| % Cars            | 94.7           | 100.0    | 100.0     | 0.0      | 94.7       | 96.0                        | 96.0       | 75.0      | 0.0      | 96.0       | 100.0             | 98.0       | 95.5       | 0.0      | 96.6       | 96.0                         | 95.3       | 96.0     | 100.0    | 95.7       | 95.9        |
| Exiting Leg Total | 2129           |          |           |          |            | 2901                        |            |           |          |            | 3899              |            |            |          |            | 6321                         |            |          |          |            | 15250       |
| Heavy Vehicles    | 87             | 0        | 0         | 0        | 87         | 12                          | 98         | 1         | 0        | 111        | 0                 | 38         | 113        | 0        | 151        | 161                          | 141        | 1        | 0        | 303        | 652         |
| % Heavy Vehicles  | 5.3            | 0.0      | 0.0       | 0.0      | 5.3        | 4.0                         | 4.0        | 25.0      | 0.0      | 4.0        | 0.0               | 2.0        | 4.5        | 0.0      | 3.4        | 4.0                          | 4.7        | 4.0      | 0.0      | 4.3        | 4.1         |
| Exiting Leg Total | 51             |          |           |          |            | 141                         |            |           |          |            | 162               |            |            |          |            | 298                          |            |          |          |            | 652         |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                    | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|--------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                    | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                    | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 7:45 AM            | 42             | 0     | 0         | 0      | 42    | 12                          | 47         | 0         | 0      | 59    | 1                 | 33    | 50    | 0      | 84    | 132                          | 42        | 0     | 0      | 174   | 359   |
| 7:45 AM            | 41             | 1     | 0         | 0      | 42    | 10                          | 41         | 0         | 0      | 51    | 0                 | 24    | 55    | 0      | 79    | 92                           | 82        | 0     | 0      | 174   | 346   |
| 8:00 AM            | 34             | 0     | 0         | 0      | 34    | 2                           | 28         | 0         | 0      | 30    | 0                 | 37    | 28    | 0      | 65    | 108                          | 63        | 1     | 0      | 172   | 301   |
| 8:30 AM            | 44             | 0     | 0         | 0      | 44    | 7                           | 58         | 0         | 0      | 65    | 1                 | 30    | 37    | 0      | 68    | 117                          | 66        | 0     | 0      | 183   | 360   |
| Total Volume       | 161            | 1     | 0         | 0      | 162   | 31                          | 174        | 0         | 0      | 205   | 2                 | 124   | 170   | 0      | 296   | 449                          | 253       | 1     | 0      | 703   | 1366  |
| % Approach Total   | 99.4           | 0.6   | 0.0       | 0.0    |       | 15.1                        | 84.9       | 0.0       | 0.0    |       | 0.7               | 41.9  | 57.4  | 0.0    |       | 63.9                         | 36.0      | 0.1   | 0.0    |       |       |
| PHF                | 0.915          | 0.250 | 0.000     | 0.000  | 0.920 | 0.646                       | 0.750      | 0.000     | 0.000  | 0.788 | 0.500             | 0.838 | 0.773 | 0.000  | 0.881 | 0.850                        | 0.771     | 0.250 | 0.000  | 0.960 | 0.949 |
| Cars               | 155            | 1     | 0         | 0      | 156   | 31                          | 165        | 0         | 0      | 196   | 2                 | 123   | 163   | 0      | 288   | 427                          | 242       | 1     | 0      | 670   | 1310  |
| Cars %             | 96.3           | 100.0 | 0.0       | 0.0    | 96.3  | 100.0                       | 94.8       | 0.0       | 0.0    | 95.6  | 100.0             | 99.2  | 95.9  | 0.0    | 97.3  | 95.1                         | 95.7      | 100.0 | 0.0    | 95.3  | 95.9  |
| Heavy Vehicles     | 6              | 0     | 0         | 0      | 6     | 0                           | 9          | 0         | 0      | 9     | 0                 | 1     | 7     | 0      | 8     | 22                           | 11        | 0     | 0      | 33    | 56    |
| Heavy Vehicles %   | 3.7            | 0.0   | 0.0       | 0.0    | 3.7   | 0.0                         | 5.2        | 0.0       | 0.0    | 4.4   | 0.0               | 0.8   | 4.1   | 0.0    | 2.7   | 4.9                          | 4.3       | 0.0   | 0.0    | 4.7   | 4.1   |
| Cars Enter Leg     | 155            | 1     | 0         | 0      | 156   | 31                          | 165        | 0         | 0      | 196   | 2                 | 123   | 163   | 0      | 288   | 427                          | 242       | 1     | 0      | 670   | 1310  |
| Heavy Enter Leg    | 6              | 0     | 0         | 0      | 6     | 0                           | 9          | 0         | 0      | 9     | 0                 | 1     | 7     | 0      | 8     | 22                           | 11        | 0     | 0      | 33    | 56    |
| Total Entering Leg | 161            | 1     | 0         | 0      | 162   | 31                          | 174        | 0         | 0      | 205   | 2                 | 124   | 170   | 0      | 296   | 449                          | 253       | 1     | 0      | 703   | 1366  |
| Cars Exiting Leg   | 155            |       |           |        |       | 244                         |            |           |        |       | 428               |       |       |        |       | 483                          |           |       |        |       | 1310  |
| Heavy Exiting Leg  | 1              |       |           |        |       | 11                          |            |           |        |       | 22                |       |       |        |       | 22                           |           |       |        |       | 56    |
| Total Exiting Leg  | 156            |       |           |        |       | 255                         |            |           |        |       | 450               |       |       |        |       | 505                          |           |       |        |       | 1366  |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 1:45 PM          | 22             | 0     | 0         | 0      | 22    | 5                           | 47         | 0         | 0      | 52    | 2                 | 29    | 65    | 0      | 96    | 55                           | 57        | 0     | 0      | 112   | 282   |
| 2:00 PM          | 29             | 0     | 0         | 0      | 29    | 5                           | 43         | 0         | 0      | 48    | 0                 | 42    | 59    | 0      | 101   | 74                           | 40        | 1     | 0      | 115   | 293   |
| 2:15 PM          | 37             | 0     | 0         | 0      | 37    | 4                           | 57         | 0         | 0      | 61    | 0                 | 30    | 43    | 0      | 73    | 93                           | 53        | 0     | 0      | 146   | 317   |
| 2:30 PM          | 45             | 0     | 0         | 0      | 45    | 12                          | 64         | 0         | 0      | 76    | 3                 | 31    | 51    | 0      | 85    | 73                           | 49        | 0     | 0      | 122   | 328   |
| Total Volume     | 133            | 0     | 0         | 0      | 133   | 26                          | 211        | 0         | 0      | 237   | 5                 | 132   | 218   | 0      | 355   | 295                          | 199       | 1     | 0      | 495   | 1220  |
| % Approach Total | 100.0          | 0.0   | 0.0       | 0.0    |       | 11.0                        | 89.0       | 0.0       | 0.0    |       | 1.4               | 37.2  | 61.4  | 0.0    |       | 59.6                         | 40.2      | 0.2   | 0.0    |       |       |
| PHF              | 0.739          | 0.000 | 0.000     | 0.000  | 0.739 | 0.542                       | 0.824      | 0.000     | 0.000  | 0.780 | 0.417             | 0.786 | 0.838 | 0.000  | 0.879 | 0.793                        | 0.873     | 0.250 | 0.000  | 0.848 | 0.930 |
| Cars             | 128            | 0     | 0         | 0      | 128   | 26                          | 205        | 0         | 0      | 231   | 5                 | 130   | 211   | 0      | 346   | 285                          | 190       | 1     | 0      | 476   | 1181  |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                    | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|--------------------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                    | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |       |        |       |       |
|                    | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| Cars %             | 96.2           | 0.0  | 0.0       | 0.0    | 96.2  | 100.0                       | 97.2       | 0.0       | 0.0    | 97.5  | 100.0             | 98.5  | 96.8 | 0.0    | 97.5  | 96.6                         | 95.5      | 100.0 | 0.0    | 96.2  | 96.8  |
| Heavy Vehicles     | 5              | 0    | 0         | 0      | 5     | 0                           | 6          | 0         | 0      | 6     | 0                 | 2     | 7    | 0      | 9     | 10                           | 9         | 0     | 0      | 19    | 39    |
| Heavy Vehicles %   | 3.8            | 0.0  | 0.0       | 0.0    | 3.8   | 0.0                         | 2.8        | 0.0       | 0.0    | 2.5   | 0.0               | 1.5   | 3.2  | 0.0    | 2.5   | 3.4                          | 4.5       | 0.0   | 0.0    | 3.8   | 3.2   |
| Cars Enter Leg     | 128            | 0    | 0         | 0      | 128   | 26                          | 205        | 0         | 0      | 231   | 5                 | 130   | 211  | 0      | 346   | 285                          | 190       | 1     | 0      | 476   | 1181  |
| Heavy Enter Leg    | 5              | 0    | 0         | 0      | 5     | 0                           | 6          | 0         | 0      | 6     | 0                 | 2     | 7    | 0      | 9     | 10                           | 9         | 0     | 0      | 19    | 39    |
| Total Entering Leg | 133            | 0    | 0         | 0      | 133   | 26                          | 211        | 0         | 0      | 237   | 5                 | 132   | 218  | 0      | 355   | 295                          | 199       | 1     | 0      | 495   | 1220  |
| Cars Exiting Leg   |                |      |           |        |       |                             |            |           |        |       |                   |       |      |        |       |                              |           |       |        |       |       |
| Heavy Exiting Leg  |                |      |           |        |       |                             |            |           |        |       |                   |       |      |        |       |                              |           |       |        |       |       |
| Total Exiting Leg  |                |      |           |        |       |                             |            |           |        |       |                   |       |      |        |       |                              |           |       |        |       |       |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|                    | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|--------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                    | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                    | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 5:30 PM            | 36             | 0     | 0         | 0      | 36    | 5                           | 55         | 0         | 0      | 60    | 1                 | 45    | 59    | 0      | 105   | 97                           | 82        | 1     | 0      | 180   | 381   |
| 5:45 PM            | 32             | 0     | 0         | 0      | 32    | 8                           | 67         | 0         | 0      | 75    | 2                 | 45    | 55    | 0      | 102   | 104                          | 75        | 0     | 0      | 179   | 388   |
| 6:00 PM            | 37             | 1     | 0         | 0      | 38    | 9                           | 70         | 0         | 0      | 79    | 3                 | 42    | 53    | 0      | 98    | 123                          | 74        | 1     | 0      | 198   | 413   |
| 6:15 PM            | 27             | 0     | 0         | 0      | 27    | 8                           | 56         | 0         | 0      | 64    | 0                 | 52    | 59    | 0      | 111   | 90                           | 63        | 0     | 0      | 153   | 355   |
| Total Volume       | 132            | 1     | 0         | 0      | 133   | 30                          | 248        | 0         | 0      | 278   | 6                 | 184   | 226   | 0      | 416   | 414                          | 294       | 2     | 0      | 710   | 1537  |
| % Approach Total   | 99.2           | 0.8   | 0.0       | 0.0    |       | 10.8                        | 89.2       | 0.0       | 0.0    |       | 1.4               | 44.2  | 54.3  | 0.0    |       | 58.3                         | 41.4      | 0.3   | 0.0    |       |       |
| PHF                | 0.892          | 0.250 | 0.000     | 0.000  | 0.875 | 0.833                       | 0.886      | 0.000     | 0.000  | 0.880 | 0.500             | 0.885 | 0.958 | 0.000  | 0.937 | 0.841                        | 0.896     | 0.500 | 0.000  | 0.896 | 0.930 |
| Cars               | 128            | 1     | 0         | 0      | 129   | 30                          | 242        | 0         | 0      | 272   | 6                 | 184   | 216   | 0      | 406   | 408                          | 287       | 2     | 0      | 697   | 1504  |
| Cars %             | 97.0           | 100.0 | 0.0       | 0.0    | 97.0  | 100.0                       | 97.6       | 0.0       | 0.0    | 97.8  | 100.0             | 100.0 | 95.6  | 0.0    | 97.6  | 98.6                         | 97.6      | 100.0 | 0.0    | 98.2  | 97.9  |
| Heavy Vehicles     | 4              | 0     | 0         | 0      | 4     | 0                           | 6          | 0         | 0      | 6     | 0                 | 0     | 10    | 0      | 10    | 6                            | 7         | 0     | 0      | 13    | 33    |
| Heavy Vehicles %   | 3.0            | 0.0   | 0.0       | 0.0    | 3.0   | 0.0                         | 2.4        | 0.0       | 0.0    | 2.2   | 0.0               | 0.0   | 4.4   | 0.0    | 2.4   | 1.4                          | 2.4       | 0.0   | 0.0    | 1.8   | 2.1   |
| Cars Enter Leg     | 128            | 1     | 0         | 0      | 129   | 30                          | 242        | 0         | 0      | 272   | 6                 | 184   | 216   | 0      | 406   | 408                          | 287       | 2     | 0      | 697   | 1504  |
| Heavy Enter Leg    | 4              | 0     | 0         | 0      | 4     | 0                           | 6          | 0         | 0      | 6     | 0                 | 0     | 10    | 0      | 10    | 6                            | 7         | 0     | 0      | 13    | 33    |
| Total Entering Leg | 132            | 1     | 0         | 0      | 133   | 30                          | 248        | 0         | 0      | 278   | 6                 | 184   | 226   | 0      | 416   | 414                          | 294       | 2     | 0      | 710   | 1537  |
| Cars Exiting Leg   |                |       |           |        |       |                             |            |           |        |       |                   |       |       |        |       |                              |           |       |        |       |       |
| Heavy Exiting Leg  |                |       |           |        |       |                             |            |           |        |       |                   |       |       |        |       |                              |           |       |        |       |       |
| Total Exiting Leg  |                |       |           |        |       |                             |            |           |        |       |                   |       |       |        |       |                              |           |       |        |       |       |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars**

|          | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|----------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|          | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|          | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 6:00 AM  | 5              | 0    | 0         | 0      | 5     | 2                           | 13         | 0         | 0      | 15    | 0                 | 4     | 11   | 0      | 15    | 16                           | 28        | 0    | 0      | 44    | 79    |
| 6:15 AM  | 7              | 1    | 0         | 0      | 8     | 1                           | 21         | 0         | 0      | 22    | 0                 | 9     | 18   | 0      | 27    | 27                           | 25        | 0    | 0      | 52    | 109   |
| 6:30 AM  | 11             | 0    | 0         | 0      | 11    | 3                           | 35         | 0         | 0      | 38    | 0                 | 10    | 17   | 0      | 27    | 35                           | 34        | 0    | 0      | 69    | 145   |
| 6:45 AM  | 13             | 0    | 0         | 0      | 13    | 3                           | 36         | 0         | 0      | 39    | 0                 | 9     | 22   | 0      | 31    | 51                           | 38        | 0    | 0      | 89    | 172   |
| Total    | 36             | 1    | 0         | 0      | 37    | 9                           | 105        | 0         | 0      | 114   | 0                 | 32    | 68   | 0      | 100   | 129                          | 125       | 0    | 0      | 254   | 505   |
| 7:00 AM  | 23             | 0    | 0         | 0      | 23    | 2                           | 25         | 0         | 0      | 27    | 0                 | 10    | 19   | 0      | 29    | 54                           | 29        | 0    | 0      | 83    | 162   |
| 7:15 AM  | 28             | 0    | 0         | 0      | 28    | 0                           | 43         | 0         | 0      | 43    | 1                 | 27    | 17   | 0      | 45    | 71                           | 52        | 0    | 0      | 123   | 239   |
| 7:30 AM  | 42             | 0    | 0         | 0      | 42    | 4                           | 37         | 0         | 0      | 41    | 0                 | 27    | 24   | 0      | 51    | 102                          | 62        | 0    | 0      | 164   | 298   |
| 7:45 AM  | 41             | 0    | 0         | 0      | 41    | 12                          | 45         | 0         | 0      | 57    | 1                 | 33    | 50   | 0      | 84    | 129                          | 42        | 0    | 0      | 171   | 353   |
| Total    | 134            | 0    | 0         | 0      | 134   | 18                          | 150        | 0         | 0      | 168   | 2                 | 97    | 110  | 0      | 209   | 356                          | 185       | 0    | 0      | 541   | 1052  |
| 8:00 AM  | 39             | 1    | 0         | 0      | 40    | 10                          | 39         | 0         | 0      | 49    | 0                 | 24    | 53   | 0      | 77    | 85                           | 74        | 0    | 0      | 159   | 325   |
| 8:15 AM  | 33             | 0    | 0         | 0      | 33    | 2                           | 26         | 0         | 0      | 28    | 0                 | 36    | 28   | 0      | 64    | 104                          | 62        | 1    | 0      | 167   | 292   |
| 8:30 AM  | 42             | 0    | 0         | 0      | 42    | 7                           | 55         | 0         | 0      | 62    | 1                 | 30    | 32   | 0      | 63    | 109                          | 64        | 0    | 0      | 173   | 340   |
| 8:45 AM  | 32             | 0    | 0         | 0      | 32    | 1                           | 33         | 0         | 0      | 34    | 0                 | 50    | 49   | 0      | 99    | 102                          | 52        | 1    | 0      | 155   | 320   |
| Total    | 146            | 1    | 0         | 0      | 147   | 20                          | 153        | 0         | 0      | 173   | 1                 | 140   | 162  | 0      | 303   | 400                          | 252       | 2    | 0      | 654   | 1277  |
| 9:00 AM  | 27             | 0    | 0         | 0      | 27    | 3                           | 39         | 0         | 0      | 42    | 1                 | 38    | 36   | 0      | 75    | 83                           | 61        | 3    | 0      | 147   | 291   |
| 9:15 AM  | 19             | 0    | 0         | 0      | 19    | 3                           | 35         | 0         | 0      | 38    | 0                 | 31    | 47   | 0      | 78    | 60                           | 52        | 0    | 0      | 112   | 247   |
| 9:30 AM  | 22             | 0    | 0         | 0      | 22    | 4                           | 40         | 0         | 0      | 44    | 0                 | 22    | 36   | 0      | 58    | 67                           | 53        | 0    | 0      | 120   | 244   |
| 9:45 AM  | 20             | 0    | 0         | 0      | 20    | 4                           | 25         | 1         | 0      | 30    | 0                 | 36    | 33   | 0      | 69    | 73                           | 54        | 1    | 0      | 128   | 247   |
| Total    | 88             | 0    | 0         | 0      | 88    | 14                          | 139        | 1         | 0      | 154   | 1                 | 127   | 152  | 0      | 280   | 283                          | 220       | 4    | 0      | 507   | 1029  |
| 10:00 AM | 22             | 0    | 0         | 0      | 22    | 3                           | 35         | 0         | 0      | 38    | 1                 | 31    | 39   | 0      | 71    | 70                           | 55        | 0    | 0      | 125   | 256   |
| 10:15 AM | 32             | 0    | 0         | 0      | 32    | 3                           | 36         | 0         | 0      | 39    | 2                 | 28    | 41   | 0      | 71    | 44                           | 49        | 0    | 0      | 93    | 235   |
| 10:30 AM | 20             | 0    | 0         | 0      | 20    | 2                           | 36         | 0         | 0      | 38    | 0                 | 27    | 33   | 0      | 60    | 45                           | 48        | 0    | 0      | 93    | 211   |
| 10:45 AM | 30             | 0    | 0         | 0      | 30    | 4                           | 32         | 0         | 0      | 36    | 1                 | 19    | 44   | 0      | 64    | 55                           | 48        | 0    | 0      | 103   | 233   |
| Total    | 104            | 0    | 0         | 0      | 104   | 12                          | 139        | 0         | 0      | 151   | 4                 | 105   | 157  | 0      | 266   | 214                          | 200       | 0    | 0      | 414   | 935   |
| 11:00 AM | 34             | 0    | 0         | 0      | 34    | 3                           | 44         | 0         | 0      | 47    | 2                 | 22    | 25   | 0      | 49    | 56                           | 38        | 0    | 0      | 94    | 224   |
| 11:15 AM | 12             | 0    | 0         | 0      | 12    | 5                           | 28         | 0         | 0      | 33    | 0                 | 29    | 45   | 0      | 74    | 62                           | 44        | 0    | 0      | 106   | 225   |
| 11:30 AM | 28             | 0    | 0         | 0      | 28    | 2                           | 29         | 0         | 0      | 31    | 2                 | 26    | 41   | 0      | 69    | 55                           | 47        | 2    | 0      | 104   | 232   |
| 11:45 AM | 26             | 0    | 0         | 0      | 26    | 1                           | 47         | 1         | 0      | 49    | 0                 | 25    | 40   | 0      | 65    | 58                           | 49        | 0    | 0      | 107   | 247   |
| Total    | 100            | 0    | 0         | 0      | 100   | 11                          | 148        | 1         | 0      | 160   | 4                 | 102   | 151  | 0      | 257   | 231                          | 178       | 2    | 0      | 411   | 928   |
| 12:00 PM | 31             | 0    | 0         | 0      | 31    | 6                           | 40         | 0         | 0      | 46    | 0                 | 33    | 41   | 0      | 74    | 74                           | 40        | 2    | 0      | 116   | 267   |
| 12:15 PM | 32             | 0    | 0         | 0      | 32    | 6                           | 50         | 0         | 0      | 56    | 1                 | 38    | 43   | 0      | 82    | 69                           | 39        | 2    | 0      | 110   | 280   |
| 12:30 PM | 37             | 0    | 1         | 0      | 38    | 7                           | 27         | 0         | 0      | 34    | 1                 | 28    | 64   | 0      | 93    | 62                           | 36        | 0    | 1      | 99    | 264   |
| 12:45 PM | 27             | 0    | 0         | 0      | 27    | 6                           | 27         | 0         | 0      | 33    | 0                 | 37    | 45   | 0      | 82    | 68                           | 51        | 0    | 1      | 120   | 262   |
| Total    | 127            | 0    | 1         | 0      | 128   | 25                          | 144        | 0         | 0      | 169   | 2                 | 136   | 193  | 0      | 331   | 273                          | 166       | 4    | 2      | 445   | 1073  |
| 1:00 PM  | 31             | 0    | 0         | 0      | 31    | 2                           | 37         | 0         | 0      | 39    | 0                 | 32    | 41   | 0      | 73    | 61                           | 45        | 0    | 0      | 106   | 249   |
| 1:15 PM  | 25             | 0    | 0         | 0      | 25    | 8                           | 37         | 1         | 0      | 46    | 0                 | 21    | 53   | 0      | 74    | 65                           | 42        | 1    | 0      | 108   | 253   |
| 1:30 PM  | 42             | 0    | 0         | 0      | 42    | 6                           | 41         | 0         | 0      | 47    | 1                 | 34    | 52   | 0      | 87    | 62                           | 44        | 0    | 0      | 106   | 282   |
| 1:45 PM  | 22             | 0    | 0         | 0      | 22    | 5                           | 46         | 0         | 0      | 51    | 2                 | 29    | 65   | 0      | 96    | 53                           | 55        | 0    | 0      | 108   | 277   |
| Total    | 120            | 0    | 0         | 0      | 120   | 21                          | 161        | 1         | 0      | 183   | 3                 | 116   | 211  | 0      | 330   | 241                          | 186       | 1    | 0      | 428   | 1061  |
| 2:00 PM  | 29             | 0    | 0         | 0      | 29    | 5                           | 41         | 0         | 0      | 46    | 0                 | 40    | 55   | 0      | 95    | 74                           | 39        | 1    | 0      | 114   | 284   |
| 2:15 PM  | 36             | 0    | 0         | 0      | 36    | 4                           | 56         | 0         | 0      | 60    | 0                 | 30    | 42   | 0      | 72    | 87                           | 50        | 0    | 0      | 137   | 305   |
| 2:30 PM  | 41             | 0    | 0         | 0      | 41    | 12                          | 62         | 0         | 0      | 74    | 3                 | 31    | 49   | 0      | 83    | 71                           | 46        | 0    | 0      | 117   | 315   |
| 2:45 PM  | 27             | 0    | 0         | 0      | 27    | 6                           | 39         | 0         | 0      | 45    | 0                 | 53    | 65   | 0      | 118   | 55                           | 43        | 0    | 0      | 98    | 288   |
| Total    | 133            | 0    | 0         | 0      | 133   | 27                          | 198        | 0         | 0      | 225   | 3                 | 154   | 211  | 0      | 368   | 287                          | 178       | 1    | 0      | 466   | 1192  |
| 3:00 PM  | 29             | 0    | 0         | 0      | 29    | 7                           | 60         | 0         | 0      | 67    | 4                 | 37    | 49   | 0      | 90    | 64                           | 58        | 1    | 0      | 123   | 309   |
| 3:15 PM  | 30             | 1    | 0         | 0      | 31    | 10                          | 42         | 0         | 0      | 52    | 0                 | 42    | 56   | 0      | 98    | 54                           | 56        | 0    | 0      | 110   | 291   |
| 3:30 PM  | 28             | 0    | 0         | 0      | 28    | 3                           | 56         | 0         | 0      | 59    | 1                 | 40    | 42   | 0      | 83    | 96                           | 68        | 0    | 0      | 164   | 334   |
| 3:45 PM  | 30             | 0    | 0         | 0      | 30    | 7                           | 44         | 0         | 0      | 51    | 1                 | 38    | 73   | 0      | 112   | 57                           | 53        | 0    | 0      | 110   | 303   |
| Total    | 117            | 1    | 0         | 0      | 118   | 27                          | 202        | 0         | 0      | 229   | 6                 | 157   | 220  | 0      | 383   | 271                          | 235       | 1    | 0      | 507   | 1237  |
| 4:00 PM  | 30             | 0    | 0         | 0      | 30    | 7                           | 59         | 0         | 0      | 66    | 0                 | 40    | 48   | 0      | 88    | 71                           | 71        | 2    | 0      | 144   | 328   |
| 4:15 PM  | 22             | 0    | 0         | 0      | 22    | 7                           | 74         | 0         | 0      | 81    | 0                 | 45    | 58   | 0      | 103   | 76                           | 57        | 0    | 0      | 133   | 339   |
| 4:30 PM  | 27             | 1    | 0         | 0      | 28    | 7                           | 47         | 0         | 0      | 54    | 1                 | 52    | 48   | 0      | 101   | 80                           | 57        | 0    | 0      | 137   | 320   |
| 4:45 PM  | 23             | 0    | 0         | 0      | 23    | 6                           | 44         | 0         | 0      | 50    | 0                 | 42    | 51   | 0      | 93    | 77                           | 69        | 1    | 0      | 147   | 313   |
| Total    | 102            | 1    | 0         | 0      | 103   | 27                          | 224        | 0         | 0      | 251   | 1                 | 179   | 205  | 0      | 385   | 304                          | 254       | 3    | 0      | 561   | 1300  |
| 5:00 PM  | 28             | 0    | 0         | 0      | 28    | 8                           | 75         | 0         | 0      | 83    | 1                 | 45    | 35   | 0      | 81    | 73                           | 64        | 0    | 0      | 137   | 329   |
| 5:15 PM  | 39             | 0    | 0         | 0      | 39    | 15                          | 43         | 0         | 0      | 58    | 0                 | 37    | 56   | 0      | 93    | 84                           | 61        | 2    | 0      | 147   | 337   |



PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class: **Cars**



|                   | Waltham Street |          |           |          |            | Watertown Street (Route 16) |            |           |          |            | Washington Street |            |            |          |            | Washington Street (Route 16) |            |          |          |            | Total       |  |  |  |  |       |
|-------------------|----------------|----------|-----------|----------|------------|-----------------------------|------------|-----------|----------|------------|-------------------|------------|------------|----------|------------|------------------------------|------------|----------|----------|------------|-------------|--|--|--|--|-------|
|                   | from North     |          |           |          |            | from Northeast              |            |           |          |            | from East         |            |            |          |            | from West                    |            |          |          |            |             |  |  |  |  |       |
|                   | Right          | Left     | Hard Left | U-Turn   | Total      | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total      | Hard Right        | Right      | Thru       | U-Turn   | Total      | Thru                         | Bear Left  | Left     | U-Turn   | Total      |             |  |  |  |  |       |
| 5:30 PM           | 36             | 0        | 0         | 0        | 36         | 5                           | 54         | 0         | 0        | 59         | 1                 | 45         | 57         | 0        | 103        | 97                           | 80         | 1        | 0        | 178        | 376         |  |  |  |  |       |
| 5:45 PM           | 30             | 0        | 0         | 0        | 30         | 8                           | 64         | 0         | 0        | 72         | 2                 | 45         | 51         | 0        | 98         | 101                          | 75         | 0        | 0        | 176        | 376         |  |  |  |  |       |
| <b>Total</b>      | <b>133</b>     | <b>0</b> | <b>0</b>  | <b>0</b> | <b>133</b> | <b>36</b>                   | <b>236</b> | <b>0</b>  | <b>0</b> | <b>272</b> | <b>4</b>          | <b>172</b> | <b>199</b> | <b>0</b> | <b>375</b> | <b>355</b>                   | <b>280</b> | <b>3</b> | <b>0</b> | <b>638</b> | <b>1418</b> |  |  |  |  |       |
| 6:00 PM           | 36             | 1        | 0         | 0        | 37         | 9                           | 68         | 0         | 0        | 77         | 3                 | 42         | 51         | 0        | 96         | 120                          | 73         | 1        | 0        | 194        | 404         |  |  |  |  |       |
| 6:15 PM           | 26             | 0        | 0         | 0        | 26         | 8                           | 56         | 0         | 0        | 64         | 0                 | 52         | 57         | 0        | 109        | 90                           | 59         | 0        | 0        | 149        | 348         |  |  |  |  |       |
| 6:30 PM           | 24             | 0        | 0         | 0        | 24         | 4                           | 67         | 0         | 0        | 71         | 0                 | 40         | 49         | 0        | 89         | 87                           | 62         | 0        | 0        | 149        | 333         |  |  |  |  |       |
| 6:45 PM           | 21             | 0        | 0         | 0        | 21         | 2                           | 40         | 0         | 0        | 42         | 2                 | 51         | 59         | 0        | 112        | 69                           | 45         | 0        | 0        | 114        | 289         |  |  |  |  |       |
| <b>Total</b>      | <b>107</b>     | <b>1</b> | <b>0</b>  | <b>0</b> | <b>108</b> | <b>23</b>                   | <b>231</b> | <b>0</b>  | <b>0</b> | <b>254</b> | <b>5</b>          | <b>185</b> | <b>216</b> | <b>0</b> | <b>406</b> | <b>366</b>                   | <b>239</b> | <b>1</b> | <b>0</b> | <b>606</b> | <b>1374</b> |  |  |  |  |       |
| 7:00 PM           | 26             | 0        | 0         | 0        | 26         | 9                           | 47         | 0         | 0        | 56         | 0                 | 34         | 48         | 0        | 82         | 51                           | 49         | 0        | 0        | 100        | 264         |  |  |  |  |       |
| 7:15 PM           | 33             | 0        | 0         | 0        | 33         | 3                           | 27         | 0         | 0        | 30         | 0                 | 35         | 37         | 0        | 72         | 58                           | 49         | 2        | 0        | 109        | 244         |  |  |  |  |       |
| 7:30 PM           | 20             | 0        | 0         | 0        | 20         | 4                           | 31         | 0         | 0        | 35         | 1                 | 27         | 41         | 0        | 69         | 44                           | 36         | 0        | 0        | 80         | 204         |  |  |  |  |       |
| 7:45 PM           | 20             | 0        | 0         | 0        | 20         | 1                           | 30         | 0         | 0        | 31         | 2                 | 20         | 27         | 0        | 49         | 28                           | 29         | 0        | 0        | 57         | 157         |  |  |  |  |       |
| <b>Total</b>      | <b>99</b>      | <b>0</b> | <b>0</b>  | <b>0</b> | <b>99</b>  | <b>17</b>                   | <b>135</b> | <b>0</b>  | <b>0</b> | <b>152</b> | <b>3</b>          | <b>116</b> | <b>153</b> | <b>0</b> | <b>272</b> | <b>181</b>                   | <b>163</b> | <b>2</b> | <b>0</b> | <b>346</b> | <b>869</b>  |  |  |  |  |       |
| Grand Total       | 1546           | 5        | 1         | 0        | 1552       | 287                         | 2365       | 3         | 0        | 2655       | 39                | 1818       | 2408       | 0        | 4265       | 3891                         | 2861       | 24       | 2        | 6778       | 15250       |  |  |  |  |       |
| Approach %        | 99.6           | 0.3      | 0.1       | 0.0      |            | 10.8                        | 89.1       | 0.1       | 0.0      |            | 0.9               | 42.6       | 56.5       | 0.0      |            | 57.4                         | 42.2       | 0.4      | 0.0      |            |             |  |  |  |  |       |
| Total %           | 10.1           | 0.0      | 0.0       | 0.0      | 10.2       | 1.9                         | 15.5       | 0.0       | 0.0      | 17.4       | 0.3               | 11.9       | 15.8       | 0.0      | 28.0       | 25.5                         | 18.8       | 0.2      | 0.0      | 44.4       |             |  |  |  |  |       |
| Exiting Leg Total |                |          |           |          |            | 2129                        |            |           |          |            | 2901              |            |            |          |            | 3899                         |            |          |          |            | 6321        |  |  |  |  | 15250 |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 7:45 AM          | 41             | 0     | 0         | 0      | 41    | 12                          | 45         | 0         | 0      | 57    | 1                 | 33    | 50    | 0      | 84    | 129                          | 42        | 0     | 0      | 171   | 353   |
| 7:45 AM          | 39             | 1     | 0         | 0      | 40    | 10                          | 39         | 0         | 0      | 49    | 0                 | 24    | 53    | 0      | 77    | 85                           | 74        | 0     | 0      | 159   | 325   |
| 8:15 AM          | 33             | 0     | 0         | 0      | 33    | 2                           | 26         | 0         | 0      | 28    | 0                 | 36    | 28    | 0      | 64    | 104                          | 62        | 1     | 0      | 167   | 292   |
| 8:30 AM          | 42             | 0     | 0         | 0      | 42    | 7                           | 55         | 0         | 0      | 62    | 1                 | 30    | 32    | 0      | 63    | 109                          | 64        | 0     | 0      | 173   | 340   |
| Total Volume     | 155            | 1     | 0         | 0      | 156   | 31                          | 165        | 0         | 0      | 196   | 2                 | 123   | 163   | 0      | 288   | 427                          | 242       | 1     | 0      | 670   | 1310  |
| % Approach Total | 99.4           | 0.6   | 0.0       | 0.0    |       | 15.8                        | 84.2       | 0.0       | 0.0    |       | 0.7               | 42.7  | 56.6  | 0.0    |       | 63.7                         | 36.1      | 0.1   | 0.0    |       |       |
| PHF              | 0.923          | 0.250 | 0.000     | 0.000  | 0.929 | 0.646                       | 0.750      | 0.000     | 0.000  | 0.790 | 0.500             | 0.854 | 0.769 | 0.000  | 0.857 | 0.828                        | 0.818     | 0.250 | 0.000  | 0.968 | 0.928 |
| Entering Leg     | 155            | 1     | 0         | 0      | 156   | 31                          | 165        | 0         | 0      | 196   | 2                 | 123   | 163   | 0      | 288   | 427                          | 242       | 1     | 0      | 670   | 1310  |
| Exiting Leg      |                |       |           |        |       | 155                         |            |           |        |       | 244               |       |       |        |       | 428                          |           |       |        |       | 483   |
| Total            | 311            |       |           |        |       | 440                         |            |           |        |       | 716               |       |       |        |       | 1153                         |           |       |        |       | 2620  |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 1:45 PM          | 22             | 0     | 0         | 0      | 22    | 5                           | 46         | 0         | 0      | 51    | 2                 | 29    | 65    | 0      | 96    | 53                           | 55        | 0     | 0      | 108   | 277   |
| 2:00 PM          | 29             | 0     | 0         | 0      | 29    | 5                           | 41         | 0         | 0      | 46    | 0                 | 40    | 55    | 0      | 95    | 74                           | 39        | 1     | 0      | 114   | 284   |
| 2:15 PM          | 36             | 0     | 0         | 0      | 36    | 4                           | 56         | 0         | 0      | 60    | 0                 | 30    | 42    | 0      | 72    | 87                           | 50        | 0     | 0      | 137   | 305   |
| 2:30 PM          | 41             | 0     | 0         | 0      | 41    | 12                          | 62         | 0         | 0      | 74    | 3                 | 31    | 49    | 0      | 83    | 71                           | 46        | 0     | 0      | 117   | 315   |
| Total Volume     | 128            | 0     | 0         | 0      | 128   | 26                          | 205        | 0         | 0      | 231   | 5                 | 130   | 211   | 0      | 346   | 285                          | 190       | 1     | 0      | 476   | 1181  |
| % Approach Total | 100.0          | 0.0   | 0.0       | 0.0    |       | 11.3                        | 88.7       | 0.0       | 0.0    |       | 1.4               | 37.6  | 61.0  | 0.0    |       | 59.9                         | 39.9      | 0.2   | 0.0    |       |       |
| PHF              | 0.780          | 0.000 | 0.000     | 0.000  | 0.780 | 0.542                       | 0.827      | 0.000     | 0.000  | 0.780 | 0.417             | 0.813 | 0.812 | 0.000  | 0.901 | 0.819                        | 0.864     | 0.250 | 0.000  | 0.869 | 0.937 |
| Entering Leg     | 128            | 0     | 0         | 0      | 128   | 26                          | 205        | 0         | 0      | 231   | 5                 | 130   | 211   | 0      | 346   | 285                          | 190       | 1     | 0      | 476   | 1181  |
| Exiting Leg      |                |       |           |        |       | 157                         |            |           |        |       | 285               |       |       |        |       | 544                          |           |       |        |       | 1181  |
| Total            | 285            |       |           |        |       | 426                         |            |           |        |       | 631               |       |       |        |       | 1020                         |           |       |        |       | 2362  |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|---------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|         | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|         | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 5:30 PM | 36             | 0    | 0         | 0      | 36    | 5                           | 54         | 0         | 0      | 59    | 1                 | 45    | 57   | 0      | 103   | 97                           | 80        | 1    | 0      | 178   | 376   |
| 5:45 PM | 30             | 0    | 0         | 0      | 30    | 8                           | 64         | 0         | 0      | 72    | 2                 | 45    | 51   | 0      | 98    | 101                          | 75        | 0    | 0      | 176   | 376   |
| 6:00 PM | 36             | 1    | 0         | 0      | 37    | 9                           | 68         | 0         | 0      | 77    | 3                 | 42    | 51   | 0      | 96    | 120                          | 73        | 1    | 0      | 194   | 404   |
| 6:15 PM | 26             | 0    | 0         | 0      | 26    | 8                           | 56         | 0         | 0      | 64    | 0                 | 52    | 57   | 0      | 109   | 90                           | 59        | 0    | 0      | 149   | 348   |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Cars**

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |      |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |      |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |      |
| Total Volume     | 128            | 1     | 0         | 0      | 129   | 30                          | 242        | 0         | 0      | 272   | 6                 | 184   | 216   | 0      | 406   | 408                          | 287       | 2     | 0      | 697   | 1504  |      |
| % Approach Total | 99.2           | 0.8   | 0.0       | 0.0    |       | 11.0                        | 89.0       | 0.0       | 0.0    |       | 1.5               | 45.3  | 53.2  | 0.0    |       | 58.5                         | 41.2      | 0.3   | 0.0    |       |       |      |
| PHF              | 0.889          | 0.250 | 0.000     | 0.000  | 0.872 | 0.833                       | 0.890      | 0.000     | 0.000  | 0.883 | 0.500             | 0.885 | 0.947 | 0.000  | 0.931 | 0.850                        | 0.897     | 0.500 | 0.000  | 0.898 | 0.931 |      |
| Entering Leg     | 128            | 1     | 0         | 0      | 129   | 30                          | 242        | 0         | 0      | 272   | 6                 | 184   | 216   | 0      | 406   | 408                          | 287       | 2     | 0      | 697   | 1504  |      |
| Exiting Leg      |                |       |           |        | 216   |                             |            |           |        | 293   |                   |       |       |        | 409   |                              |           |       |        |       | 586   | 1504 |
| Total            |                |       |           |        | 345   |                             |            |           |        | 565   |                   |       |       |        | 815   |                              |           |       |        |       | 1283  | 3008 |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|          | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|----------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|          | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|          | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 6:00 AM  | 2              | 0    | 0         | 0      | 2     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 1         | 0    | 0      | 1     | 4     |
| 6:15 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 2    | 0      | 2     | 2                            | 0         | 0    | 0      | 2     | 6     |
| 6:30 AM  | 2              | 0    | 0         | 0      | 2     | 0                           | 3          | 0         | 0      | 3     | 0                 | 0     | 2    | 0      | 2     | 4                            | 3         | 0    | 0      | 7     | 14    |
| 6:45 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 3    | 0      | 3     | 3                            | 6         | 0    | 0      | 9     | 14    |
| Total    | 5              | 0    | 0         | 0      | 5     | 0                           | 6          | 0         | 0      | 6     | 0                 | 0     | 8    | 0      | 8     | 9                            | 10        | 0    | 0      | 19    | 38    |
| 7:00 AM  | 3              | 0    | 0         | 0      | 3     | 0                           | 5          | 0         | 0      | 5     | 0                 | 0     | 0    | 0      | 0     | 3                            | 3         | 0    | 0      | 6     | 14    |
| 7:15 AM  | 2              | 0    | 0         | 0      | 2     | 1                           | 2          | 0         | 0      | 3     | 0                 | 1     | 2    | 0      | 3     | 8                            | 4         | 0    | 0      | 12    | 20    |
| 7:30 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 4          | 0         | 0      | 4     | 0                 | 4     | 3    | 0      | 7     | 9                            | 4         | 0    | 0      | 13    | 25    |
| 7:45 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 0    | 0      | 0     | 3                            | 0         | 0    | 0      | 3     | 6     |
| Total    | 7              | 0    | 0         | 0      | 7     | 1                           | 13         | 0         | 0      | 14    | 0                 | 5     | 5    | 0      | 10    | 23                           | 11        | 0    | 0      | 34    | 65    |
| 8:00 AM  | 2              | 0    | 0         | 0      | 2     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 2    | 0      | 2     | 7                            | 8         | 0    | 0      | 15    | 21    |
| 8:15 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 0    | 0      | 1     | 4                            | 1         | 0    | 0      | 5     | 9     |
| 8:30 AM  | 2              | 0    | 0         | 0      | 2     | 0                           | 3          | 0         | 0      | 3     | 0                 | 0     | 5    | 0      | 5     | 8                            | 2         | 0    | 0      | 10    | 20    |
| 8:45 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 3    | 0      | 4     | 3                            | 3         | 0    | 0      | 6     | 12    |
| Total    | 6              | 0    | 0         | 0      | 6     | 0                           | 8          | 0         | 0      | 8     | 0                 | 2     | 10   | 0      | 12    | 22                           | 14        | 0    | 0      | 36    | 62    |
| 9:00 AM  | 2              | 0    | 0         | 0      | 2     | 1                           | 1          | 0         | 0      | 2     | 0                 | 1     | 1    | 0      | 2     | 4                            | 3         | 0    | 0      | 7     | 13    |
| 9:15 AM  | 6              | 0    | 0         | 0      | 6     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 1    | 0      | 2     | 2                            | 7         | 0    | 0      | 9     | 17    |
| 9:30 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 4          | 0         | 0      | 4     | 0                 | 0     | 2    | 0      | 2     | 2                            | 7         | 0    | 0      | 9     | 15    |
| 9:45 AM  | 3              | 0    | 0         | 0      | 3     | 0                           | 4          | 0         | 0      | 4     | 0                 | 1     | 5    | 0      | 6     | 9                            | 2         | 1    | 0      | 12    | 25    |
| Total    | 11             | 0    | 0         | 0      | 11    | 1                           | 9          | 0         | 0      | 10    | 0                 | 3     | 9    | 0      | 12    | 17                           | 19        | 1    | 0      | 37    | 70    |
| 10:00 AM | 1              | 0    | 0         | 0      | 1     | 0                           | 3          | 0         | 0      | 3     | 0                 | 1     | 6    | 0      | 7     | 2                            | 3         | 0    | 0      | 5     | 16    |
| 10:15 AM | 4              | 0    | 0         | 0      | 4     | 0                           | 0          | 0         | 0      | 0     | 0                 | 4     | 1    | 0      | 5     | 3                            | 3         | 0    | 0      | 6     | 15    |
| 10:30 AM | 2              | 0    | 0         | 0      | 2     | 0                           | 3          | 0         | 0      | 3     | 0                 | 0     | 4    | 0      | 4     | 2                            | 0         | 0    | 0      | 2     | 11    |
| 10:45 AM | 4              | 0    | 0         | 0      | 4     | 0                           | 3          | 0         | 0      | 3     | 0                 | 2     | 1    | 0      | 3     | 7                            | 3         | 0    | 0      | 10    | 20    |
| Total    | 11             | 0    | 0         | 0      | 11    | 0                           | 9          | 0         | 0      | 9     | 0                 | 7     | 12   | 0      | 19    | 14                           | 9         | 0    | 0      | 23    | 62    |
| 11:00 AM | 2              | 0    | 0         | 0      | 2     | 0                           | 2          | 0         | 0      | 2     | 0                 | 3     | 4    | 0      | 7     | 2                            | 7         | 0    | 0      | 9     | 20    |
| 11:15 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 3          | 0         | 0      | 3     | 0                 | 2     | 3    | 0      | 5     | 3                            | 3         | 0    | 0      | 6     | 14    |
| 11:30 AM | 5              | 0    | 0         | 0      | 5     | 0                           | 3          | 0         | 0      | 3     | 0                 | 1     | 2    | 0      | 3     | 1                            | 1         | 0    | 0      | 2     | 13    |
| 11:45 AM | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 2    | 0      | 2     | 0                            | 0         | 0    | 0      | 0     | 4     |
| Total    | 8              | 0    | 0         | 0      | 8     | 0                           | 9          | 0         | 0      | 9     | 0                 | 6     | 11   | 0      | 17    | 6                            | 11        | 0    | 0      | 17    | 51    |
| 12:00 PM | 1              | 0    | 0         | 0      | 1     | 0                           | 6          | 0         | 0      | 6     | 0                 | 1     | 3    | 0      | 4     | 6                            | 4         | 0    | 0      | 10    | 21    |
| 12:15 PM | 1              | 0    | 0         | 0      | 1     | 0                           | 3          | 0         | 0      | 3     | 0                 | 1     | 4    | 0      | 5     | 2                            | 2         | 0    | 0      | 4     | 13    |
| 12:30 PM | 4              | 0    | 0         | 0      | 4     | 0                           | 2          | 1         | 0      | 3     | 0                 | 2     | 4    | 0      | 6     | 2                            | 2         | 0    | 0      | 4     | 17    |
| 12:45 PM | 2              | 0    | 0         | 0      | 2     | 2                           | 0          | 0         | 0      | 2     | 0                 | 1     | 2    | 0      | 3     | 3                            | 7         | 0    | 0      | 10    | 17    |
| Total    | 8              | 0    | 0         | 0      | 8     | 2                           | 11         | 1         | 0      | 14    | 0                 | 5     | 13   | 0      | 18    | 13                           | 15        | 0    | 0      | 28    | 68    |
| 1:00 PM  | 3              | 0    | 0         | 0      | 3     | 0                           | 5          | 0         | 0      | 5     | 0                 | 1     | 2    | 0      | 3     | 5                            | 2         | 0    | 0      | 7     | 18    |
| 1:15 PM  | 5              | 0    | 0         | 0      | 5     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 3    | 0      | 4     | 1                            | 3         | 0    | 0      | 4     | 14    |
| 1:30 PM  | 1              | 0    | 0         | 0      | 1     | 1                           | 2          | 0         | 0      | 3     | 0                 | 0     | 0    | 0      | 0     | 4                            | 0         | 0    | 0      | 4     | 8     |
| 1:45 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 2                            | 2         | 0    | 0      | 4     | 5     |
| Total    | 9              | 0    | 0         | 0      | 9     | 1                           | 9          | 0         | 0      | 10    | 0                 | 2     | 5    | 0      | 7     | 12                           | 7         | 0    | 0      | 19    | 45    |
| 2:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 2     | 4    | 0      | 6     | 0                            | 1         | 0    | 0      | 1     | 9     |
| 2:15 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1    | 0      | 1     | 6                            | 3         | 0    | 0      | 9     | 12    |
| 2:30 PM  | 4              | 0    | 0         | 0      | 4     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 2    | 0      | 2     | 2                            | 3         | 0    | 0      | 5     | 13    |
| 2:45 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 3    | 0      | 4     | 1                            | 3         | 0    | 0      | 4     | 11    |
| Total    | 6              | 0    | 0         | 0      | 6     | 0                           | 7          | 0         | 0      | 7     | 0                 | 3     | 10   | 0      | 13    | 9                            | 10        | 0    | 0      | 19    | 45    |
| 3:00 PM  | 1              | 0    | 0         | 0      | 1     | 1                           | 0          | 0         | 0      | 1     | 0                 | 0     | 1    | 0      | 1     | 2                            | 4         | 0    | 0      | 6     | 9     |
| 3:15 PM  | 2              | 0    | 0         | 0      | 2     | 0                           | 2          | 0         | 0      | 2     | 0                 | 2     | 2    | 0      | 4     | 2                            | 0         | 0    | 0      | 2     | 10    |
| 3:30 PM  | 2              | 0    | 0         | 0      | 2     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 2    | 0      | 2     | 2                            | 2         | 0    | 0      | 4     | 9     |
| 3:45 PM  | 1              | 0    | 0         | 0      | 1     | 1                           | 1          | 0         | 0      | 2     | 0                 | 1     | 2    | 0      | 3     | 3                            | 0         | 0    | 0      | 3     | 9     |
| Total    | 6              | 0    | 0         | 0      | 6     | 2                           | 4          | 0         | 0      | 6     | 0                 | 3     | 7    | 0      | 10    | 9                            | 6         | 0    | 0      | 15    | 37    |
| 4:00 PM  | 0              | 0    | 0         | 0      | 0     | 1                           | 0          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 3                            | 6         | 0    | 0      | 9     | 10    |
| 4:15 PM  | 2              | 0    | 0         | 0      | 2     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2    | 0      | 2     | 2                            | 2         | 0    | 0      | 4     | 8     |
| 4:30 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 3    | 0      | 3     | 2                            | 2         | 0    | 0      | 4     | 9     |
| 4:45 PM  | 0              | 0    | 0         | 0      | 0     | 1                           | 2          | 0         | 0      | 3     | 0                 | 0     | 0    | 0      | 0     | 3                            | 2         | 0    | 0      | 5     | 8     |
| Total    | 3              | 0    | 0         | 0      | 3     | 2                           | 3          | 0         | 0      | 5     | 0                 | 0     | 5    | 0      | 5     | 10                           | 12        | 0    | 0      | 22    | 35    |
| 5:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 1    | 0      | 2     | 0                            | 3         | 0    | 0      | 3     | 6     |
| 5:15 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 2    | 0      | 3     | 4                            | 1         | 0    | 0      | 5     | 9     |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



|                    | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |           | Washington Street (Route 16) |           |          |          |           | Total     |
|--------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|-----------|------------------------------|-----------|----------|----------|-----------|-----------|
|                    | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |           | from West                    |           |          |          |           |           |
|                    | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total     | Thru                         | Bear Left | Left     | U-Turn   | Total     |           |
| 5:30 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 2        | 0        | 2         | 0                            | 2         | 0        | 0        | 2         | 5         |
| 5:45 PM            | 2              | 0        | 0         | 0        | 2        | 0                           | 3          | 0         | 0        | 3        | 0                 | 0        | 4        | 0        | 4         | 3                            | 0         | 0        | 0        | 3         | 12        |
| <b>Total</b>       | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>0</b>                    | <b>6</b>   | <b>0</b>  | <b>0</b> | <b>6</b> | <b>0</b>          | <b>2</b> | <b>9</b> | <b>0</b> | <b>11</b> | <b>7</b>                     | <b>6</b>  | <b>0</b> | <b>0</b> | <b>13</b> | <b>32</b> |
| 6:00 PM            | 1              | 0        | 0         | 0        | 1        | 0                           | 2          | 0         | 0        | 2        | 0                 | 0        | 2        | 0        | 2         | 3                            | 1         | 0        | 0        | 4         | 9         |
| 6:15 PM            | 1              | 0        | 0         | 0        | 1        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 2        | 0        | 2         | 0                            | 4         | 0        | 0        | 4         | 7         |
| 6:30 PM            | 1              | 0        | 0         | 0        | 1        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1         | 2                            | 4         | 0        | 0        | 6         | 8         |
| 6:45 PM            | 0              | 0        | 0         | 0        | 0        | 3                           | 1          | 0         | 0        | 4        | 0                 | 0        | 1        | 0        | 1         | 1                            | 1         | 0        | 0        | 2         | 7         |
| <b>Total</b>       | <b>3</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>3</b> | <b>3</b>                    | <b>3</b>   | <b>0</b>  | <b>0</b> | <b>6</b> | <b>0</b>          | <b>0</b> | <b>6</b> | <b>0</b> | <b>6</b>  | <b>6</b>                     | <b>10</b> | <b>0</b> | <b>0</b> | <b>16</b> | <b>31</b> |
| 7:00 PM            | 1              | 0        | 0         | 0        | 1        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 0        | 0        | 0         | 1                            | 0         | 0        | 0        | 1         | 3         |
| 7:15 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1         | 1                            | 1         | 0        | 0        | 2         | 3         |
| 7:30 PM            | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1         | 1                            | 0         | 0        | 0        | 1         | 2         |
| 7:45 PM            | 1              | 0        | 0         | 0        | 1        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1         | 1                            | 0         | 0        | 0        | 1         | 3         |
| <b>Total</b>       | <b>2</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>2</b> | <b>0</b>                    | <b>1</b>   | <b>0</b>  | <b>0</b> | <b>1</b> | <b>0</b>          | <b>0</b> | <b>3</b> | <b>0</b> | <b>3</b>  | <b>4</b>                     | <b>1</b>  | <b>0</b> | <b>0</b> | <b>5</b>  | <b>11</b> |
| Grand Total        | 87             | 0        | 0         | 0        | 87       | 12                          | 98         | 1         | 0        | 111      | 0                 | 38       | 113      | 0        | 151       | 161                          | 141       | 1        | 0        | 303       | 652       |
| Approach %         | 100.0          | 0.0      | 0.0       | 0.0      |          | 10.8                        | 88.3       | 0.9       | 0.0      |          | 0.0               | 25.2     | 74.8     | 0.0      |           | 53.1                         | 46.5      | 0.3      | 0.0      |           |           |
| Total %            | 13.3           | 0.0      | 0.0       | 0.0      | 13.3     | 1.8                         | 15.0       | 0.2       | 0.0      | 17.0     | 0.0               | 5.8      | 17.3     | 0.0      | 23.2      | 24.7                         | 21.6      | 0.2      | 0.0      | 46.5      |           |
| Exiting Leg Total  | 51             |          |           |          |          | 141                         |            |           |          |          | 162               |          |          |          |           | 298                          |           |          |          |           | 652       |
| Buses              | 10             | 0        | 0         | 0        | 10       | 0                           | 8          | 0         | 0        | 8        | 0                 | 3        | 29       | 0        | 32        | 39                           | 8         | 0        | 0        | 47        | 97        |
| % Buses            | 11.5           | 0.0      | 0.0       | 0.0      | 11.5     | 0.0                         | 8.2        | 0.0       | 0.0      | 7.2      | 0.0               | 7.9      | 25.7     | 0.0      | 21.2      | 24.2                         | 5.7       | 0.0      | 0.0      | 15.5      | 14.9      |
| Exiting Leg Total  | 3              |          |           |          |          | 8                           |            |           |          |          | 39                |          |          |          |           | 47                           |           |          |          |           | 97        |
| Single-Unit Trucks | 58             | 0        | 0         | 0        | 58       | 11                          | 79         | 0         | 0        | 90       | 0                 | 29       | 70       | 0        | 99        | 101                          | 111       | 1        | 0        | 213       | 460       |
| % Single-Unit      | 66.7           | 0.0      | 0.0       | 0.0      | 66.7     | 91.7                        | 80.6       | 0.0       | 0.0      | 81.1     | 0.0               | 76.3     | 61.9     | 0.0      | 65.6      | 62.7                         | 78.7      | 100.0    | 0.0      | 70.3      | 70.6      |
| Exiting Leg Total  | 41             |          |           |          |          | 111                         |            |           |          |          | 101               |          |          |          |           | 207                          |           |          |          |           | 460       |
| Articulated Trucks | 19             | 0        | 0         | 0        | 19       | 1                           | 11         | 1         | 0        | 13       | 0                 | 6        | 14       | 0        | 20        | 21                           | 22        | 0        | 0        | 43        | 95        |
| % Articulated      | 21.8           | 0.0      | 0.0       | 0.0      | 21.8     | 8.3                         | 11.2       | 100.0     | 0.0      | 11.7     | 0.0               | 15.8     | 12.4     | 0.0      | 13.2      | 13.0                         | 15.6      | 0.0      | 0.0      | 14.2      | 14.6      |
| Exiting Leg Total  | 7              |          |           |          |          | 22                          |            |           |          |          | 22                |          |          |          |           | 44                           |           |          |          |           | 95        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                    | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|--------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                    | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                    | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 6:45 AM            | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 3     | 0      | 3     | 3                            | 6         | 0     | 0      | 9     | 14    |
| 6:45 AM            | 3              | 0     | 0         | 0      | 3     | 0                           | 5          | 0         | 0      | 5     | 0                 | 0     | 0     | 0      | 0     | 3                            | 3         | 0     | 0      | 6     | 14    |
| 7:00 AM            | 2              | 0     | 0         | 0      | 2     | 1                           | 2          | 0         | 0      | 3     | 0                 | 1     | 2     | 0      | 3     | 8                            | 4         | 0     | 0      | 12    | 20    |
| 7:30 AM            | 1              | 0     | 0         | 0      | 1     | 0                           | 4          | 0         | 0      | 4     | 0                 | 4     | 3     | 0      | 7     | 9                            | 4         | 0     | 0      | 13    | 25    |
| Total Volume       | 7              | 0     | 0         | 0      | 7     | 1                           | 12         | 0         | 0      | 13    | 0                 | 5     | 8     | 0      | 13    | 23                           | 17        | 0     | 0      | 40    | 73    |
| % Approach Total   | 100.0          | 0.0   | 0.0       | 0.0    |       | 7.7                         | 92.3       | 0.0       | 0.0    |       | 0.0               | 38.5  | 61.5  | 0.0    |       | 57.5                         | 42.5      | 0.0   | 0.0    |       |       |
| PHF                | 0.583          | 0.000 | 0.000     | 0.000  | 0.583 | 0.250                       | 0.600      | 0.000     | 0.000  | 0.650 | 0.000             | 0.313 | 0.667 | 0.000  | 0.464 | 0.639                        | 0.708     | 0.000 | 0.000  | 0.769 | 0.730 |
| Buses              | 0              | 0     | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 1     | 0      | 2     | 4                            | 2         | 0     | 0      | 6     | 10    |
| Buses %            | 0.0            | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                         | 16.7       | 0.0       | 0.0    | 15.4  | 0.0               | 20.0  | 12.5  | 0.0    | 15.4  | 17.4                         | 11.8      | 0.0   | 0.0    | 15.0  | 13.7  |
| Single-Unit Trucks | 6              | 0     | 0         | 0      | 6     | 1                           | 8          | 0         | 0      | 9     | 0                 | 4     | 7     | 0      | 11    | 17                           | 13        | 0     | 0      | 30    | 56    |
| Single-Unit %      | 85.7           | 0.0   | 0.0       | 0.0    | 85.7  | 100.0                       | 66.7       | 0.0       | 0.0    | 69.2  | 0.0               | 80.0  | 87.5  | 0.0    | 84.6  | 73.9                         | 76.5      | 0.0   | 0.0    | 75.0  | 76.7  |
| Articulated Trucks | 1              | 0     | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 0     | 0      | 0     | 2                            | 2         | 0     | 0      | 4     | 7     |
| Articulated %      | 14.3           | 0.0   | 0.0       | 0.0    | 14.3  | 0.0                         | 16.7       | 0.0       | 0.0    | 15.4  | 0.0               | 0.0   | 0.0   | 0.0    | 0.0   | 8.7                          | 11.8      | 0.0   | 0.0    | 10.0  | 9.6   |
| Buses              | 0              | 0     | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 1     | 0      | 2     | 4                            | 2         | 0     | 0      | 6     | 10    |
| Single-Unit Trucks | 6              | 0     | 0         | 0      | 6     | 1                           | 8          | 0         | 0      | 9     | 0                 | 4     | 7     | 0      | 11    | 17                           | 13        | 0     | 0      | 30    | 56    |
| Articulated Trucks | 1              | 0     | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 0     | 0      | 0     | 2                            | 2         | 0     | 0      | 4     | 7     |
| Total Entering Leg | 7              | 0     | 0         | 0      | 7     | 1                           | 12         | 0         | 0      | 13    | 0                 | 5     | 8     | 0      | 13    | 23                           | 17        | 0     | 0      | 40    | 73    |
| Buses              | 1              |       |           |        |       | 2                           |            |           |        |       | 4                 |       |       |        |       | 3                            |           |       |        |       | 10    |
| Single-Unit Trucks | 5              |       |           |        |       | 13                          |            |           |        |       | 17                |       |       |        |       | 21                           |           |       |        |       | 56    |
| Articulated Trucks | 0              |       |           |        |       | 2                           |            |           |        |       | 2                 |       |       |        |       | 3                            |           |       |        |       | 7     |
| Total Exiting Leg  | 6              |       |           |        |       | 17                          |            |           |        |       | 23                |       |       |        |       | 27                           |           |       |        |       | 73    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|          | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|----------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|          | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|          | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 12:00 PM |                |      |           |        |       |                             |            |           |        |       |                   |       |      |        |       |                              |           |      |        |       |       |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|--------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                    | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                    | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 12:00 PM           | 1              | 0     | 0         | 0      | 1     | 0                           | 6          | 0         | 0      | 6     | 0                 | 1     | 3     | 0      | 4     | 6                            | 4         | 0     | 0      | 10    | 21    |
| 12:15 PM           | 1              | 0     | 0         | 0      | 1     | 0                           | 3          | 0         | 0      | 3     | 0                 | 1     | 4     | 0      | 5     | 2                            | 2         | 0     | 0      | 4     | 13    |
| 12:30 PM           | 4              | 0     | 0         | 0      | 4     | 0                           | 2          | 1         | 0      | 3     | 0                 | 2     | 4     | 0      | 6     | 2                            | 2         | 0     | 0      | 4     | 17    |
| 12:45 PM           | 2              | 0     | 0         | 0      | 2     | 2                           | 0          | 0         | 0      | 2     | 0                 | 1     | 2     | 0      | 3     | 3                            | 7         | 0     | 0      | 10    | 17    |
| Total Volume       | 8              | 0     | 0         | 0      | 8     | 2                           | 11         | 1         | 0      | 14    | 0                 | 5     | 13    | 0      | 18    | 13                           | 15        | 0     | 0      | 28    | 68    |
| % Approach Total   | 100.0          | 0.0   | 0.0       | 0.0    |       | 14.3                        | 78.6       | 7.1       | 0.0    |       | 0.0               | 27.8  | 72.2  | 0.0    |       | 46.4                         | 53.6      | 0.0   | 0.0    |       |       |
| PHF                | 0.500          | 0.000 | 0.000     | 0.000  | 0.500 | 0.250                       | 0.458      | 0.250     | 0.000  | 0.583 | 0.000             | 0.625 | 0.813 | 0.000  | 0.750 | 0.542                        | 0.536     | 0.000 | 0.000  | 0.700 | 0.810 |
| Buses              | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2     | 0      | 2     | 2                            | 0         | 0     | 0      | 2     | 4     |
| Buses %            | 0.0            | 0.0   | 0.0       | 0.0    | 0.0   | 0.0                         | 0.0        | 0.0       | 0.0    | 0.0   | 0.0               | 0.0   | 15.4  | 0.0    | 11.1  | 15.4                         | 0.0       | 0.0   | 0.0    | 7.1   | 5.9   |
| Single-Unit Trucks | 7              | 0     | 0         | 0      | 7     | 2                           | 10         | 0         | 0      | 12    | 0                 | 3     | 9     | 0      | 12    | 7                            | 12        | 0     | 0      | 19    | 50    |
| Single-Unit %      | 87.5           | 0.0   | 0.0       | 0.0    | 87.5  | 100.0                       | 90.9       | 0.0       | 0.0    | 85.7  | 0.0               | 60.0  | 69.2  | 0.0    | 66.7  | 53.8                         | 80.0      | 0.0   | 0.0    | 67.9  | 73.5  |
| Articulated Trucks | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 1         | 0      | 2     | 0                 | 2     | 2     | 0      | 4     | 4                            | 3         | 0     | 0      | 7     | 14    |
| Articulated %      | 12.5           | 0.0   | 0.0       | 0.0    | 12.5  | 0.0                         | 9.1        | 100.0     | 0.0    | 14.3  | 0.0               | 40.0  | 15.4  | 0.0    | 22.2  | 30.8                         | 20.0      | 0.0   | 0.0    | 25.0  | 20.6  |
| Buses              | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2     | 0      | 2     | 2                            | 0         | 0     | 0      | 2     | 4     |
| Single-Unit Trucks | 7              | 0     | 0         | 0      | 7     | 2                           | 10         | 0         | 0      | 12    | 0                 | 3     | 9     | 0      | 12    | 7                            | 12        | 0     | 0      | 19    | 50    |
| Articulated Trucks | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 1         | 0      | 2     | 0                 | 2     | 2     | 0      | 4     | 4                            | 3         | 0     | 0      | 7     | 14    |
| Total Entering Leg | 8              | 0     | 0         | 0      | 8     | 2                           | 11         | 1         | 0      | 14    | 0                 | 5     | 13    | 0      | 18    | 13                           | 15        | 0     | 0      | 28    | 68    |
| Buses              |                |       |           |        | 0     |                             |            |           |        | 0     |                   |       | 2     | 0      | 2     | 2                            | 0         | 0     | 0      | 2     | 4     |
| Single-Unit Trucks |                |       |           |        | 5     |                             |            |           |        | 12    |                   |       | 9     | 0      | 12    | 7                            | 12        | 0     | 0      | 19    | 50    |
| Articulated Trucks |                |       |           |        | 2     |                             |            |           |        | 3     |                   |       | 2     | 0      | 4     | 4                            | 3         | 0     | 0      | 7     | 14    |
| Total Exiting Leg  |                |       |           |        | 7     |                             |            |           |        | 15    |                   |       | 13    | 0      | 14    |                              |           |       |        | 32    | 68    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 2:00 PM            | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|--------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                    | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                    | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 2:00 PM            | 0              | 0     | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 2     | 4     | 0      | 6     | 0                            | 1         | 0     | 0      | 1     | 9     |
| 2:15 PM            | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1     | 0      | 1     | 6                            | 3         | 0     | 0      | 9     | 12    |
| 2:30 PM            | 4              | 0     | 0         | 0      | 4     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 2     | 0      | 2     | 2                            | 3         | 0     | 0      | 5     | 13    |
| 2:45 PM            | 1              | 0     | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 3     | 0      | 4     | 1                            | 3         | 0     | 0      | 4     | 11    |
| Total Volume       | 6              | 0     | 0         | 0      | 6     | 0                           | 7          | 0         | 0      | 7     | 0                 | 3     | 10    | 0      | 13    | 9                            | 10        | 0     | 0      | 19    | 45    |
| % Approach Total   | 100.0          | 0.0   | 0.0       | 0.0    |       | 0.0                         | 100.0      | 0.0       | 0.0    |       | 0.0               | 23.1  | 76.9  | 0.0    |       | 47.4                         | 52.6      | 0.0   | 0.0    |       |       |
| PHF                | 0.375          | 0.000 | 0.000     | 0.000  | 0.375 | 0.000                       | 0.875      | 0.000     | 0.000  | 0.875 | 0.000             | 0.375 | 0.625 | 0.000  | 0.542 | 0.375                        | 0.833     | 0.000 | 0.000  | 0.528 | 0.865 |
| Buses              | 1              | 0     | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 2     | 0      | 3     | 4                            | 2         | 0     | 0      | 6     | 10    |
| Buses %            | 16.7           | 0.0   | 0.0       | 0.0    | 16.7  | 0.0                         | 0.0        | 0.0       | 0.0    | 0.0   | 0.0               | 33.3  | 20.0  | 0.0    | 23.1  | 44.4                         | 20.0      | 0.0   | 0.0    | 31.6  | 22.2  |
| Single-Unit Trucks | 4              | 0     | 0         | 0      | 4     | 0                           | 6          | 0         | 0      | 6     | 0                 | 1     | 6     | 0      | 7     | 4                            | 6         | 0     | 0      | 10    | 27    |
| Single-Unit %      | 66.7           | 0.0   | 0.0       | 0.0    | 66.7  | 0.0                         | 85.7       | 0.0       | 0.0    | 85.7  | 0.0               | 33.3  | 60.0  | 0.0    | 53.8  | 44.4                         | 60.0      | 0.0   | 0.0    | 52.6  | 60.0  |
| Articulated Trucks | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 2     | 0      | 3     | 1                            | 2         | 0     | 0      | 3     | 8     |
| Articulated %      | 16.7           | 0.0   | 0.0       | 0.0    | 16.7  | 0.0                         | 14.3       | 0.0       | 0.0    | 14.3  | 0.0               | 33.3  | 20.0  | 0.0    | 23.1  | 11.1                         | 20.0      | 0.0   | 0.0    | 15.8  | 17.8  |
| Buses              | 1              | 0     | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 2     | 0      | 3     | 4                            | 2         | 0     | 0      | 6     | 10    |
| Single-Unit Trucks | 4              | 0     | 0         | 0      | 4     | 0                           | 6          | 0         | 0      | 6     | 0                 | 1     | 6     | 0      | 7     | 4                            | 6         | 0     | 0      | 10    | 27    |
| Articulated Trucks | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 2     | 0      | 3     | 1                            | 2         | 0     | 0      | 3     | 8     |
| Total Entering Leg | 6              | 0     | 0         | 0      | 6     | 0                           | 7          | 0         | 0      | 7     | 0                 | 3     | 10    | 0      | 13    | 9                            | 10        | 0     | 0      | 19    | 45    |
| Buses              |                |       |           |        | 1     |                             |            |           |        | 2     |                   |       | 2     | 0      | 4     |                              |           |       |        | 3     | 10    |
| Single-Unit Trucks |                |       |           |        | 4     |                             |            |           |        | 6     |                   |       | 6     | 0      | 7     |                              |           |       |        | 16    | 27    |
| Articulated Trucks |                |       |           |        | 1     |                             |            |           |        | 2     |                   |       | 2     | 0      | 3     |                              |           |       |        | 4     | 8     |
| Total Exiting Leg  |                |       |           |        | 3     |                             |            |           |        | 10    |                   |       | 10    | 0      | 9     |                              |           |       |        | 23    | 45    |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|          | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|----------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|          | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|          | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 6:00 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 6:15 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 6:30 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 1    | 0      | 1     | 1                            | 0         | 0    | 0      | 1     | 4     |
| 6:45 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| Total    | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 2    | 0      | 2     | 1                            | 0         | 0    | 0      | 1     | 5     |
| 7:00 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 1         | 0    | 0      | 2     | 2     |
| 7:15 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 1    | 0      | 2     | 2                            | 0         | 0    | 0      | 2     | 5     |
| 7:30 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 1                            | 1         | 0    | 0      | 2     | 3     |
| 7:45 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| Total    | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 1    | 0      | 2     | 4                            | 2         | 0    | 0      | 6     | 10    |
| 8:00 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 1    | 0      | 1     | 0                            | 1         | 0    | 0      | 1     | 4     |
| 8:15 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 0    | 0      | 1     | 2                            | 0         | 0    | 0      | 2     | 3     |
| 8:30 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 1     | 0                            | 0         | 0    | 0      | 1     | 1     |
| 8:45 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 2                            | 0         | 0    | 0      | 2     | 3     |
| Total    | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 2    | 0      | 3     | 5                            | 1         | 0    | 0      | 6     | 11    |
| 9:00 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 1     | 1     |
| 9:15 AM  | 4              | 0    | 0         | 0      | 4     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 5     |
| 9:30 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 9:45 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 1     | 1     |
| Total    | 4              | 0    | 0         | 0      | 4     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2    | 0      | 2     | 2                            | 0         | 0    | 0      | 2     | 8     |
| 10:00 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 1                            | 0         | 0    | 0      | 1     | 2     |
| 10:15 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 10:30 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 1     | 1     |
| 10:45 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| Total    | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 2                            | 0         | 0    | 0      | 2     | 3     |
| 11:00 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 11:15 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 1     | 1     |
| 11:30 AM | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 11:45 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| Total    | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2    | 0      | 2     | 1                            | 0         | 0    | 0      | 1     | 4     |
| 12:00 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 1     | 1     |
| 12:15 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 12:30 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 12:45 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 1     | 1     |
| Total    | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2    | 0      | 2     | 2                            | 0         | 0    | 0      | 2     | 4     |
| 1:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 1:15 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 1:30 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 1     | 1     |
| 1:45 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 1     |
| Total    | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 1    | 0      | 1     | 1                            | 0         | 0    | 0      | 1     | 4     |
| 2:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 1         | 0    | 0      | 1     | 2     |
| 2:15 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 3                            | 1         | 0    | 0      | 4     | 4     |
| 2:30 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 1     | 0                            | 0         | 0    | 0      | 1     | 2     |
| 2:45 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 1    | 0      | 2     | 0                            | 0         | 0    | 0      | 0     | 2     |
| Total    | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 2    | 0      | 3     | 4                            | 2         | 0    | 0      | 6     | 10    |
| 3:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 2                            | 0         | 0    | 0      | 2     | 2     |
| 3:15 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 3:30 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2    | 0      | 2     | 1                            | 0         | 0    | 0      | 1     | 3     |
| 3:45 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 1     | 1     |
| Total    | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2    | 0      | 2     | 4                            | 0         | 0    | 0      | 4     | 7     |
| 4:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 2         | 0    | 0      | 3     | 3     |
| 4:15 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 2     |
| 4:30 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 1                            | 0         | 0    | 0      | 1     | 3     |
| 4:45 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 1     | 1     |
| Total    | 2              | 0    | 0         | 0      | 2     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2    | 0      | 2     | 3                            | 2         | 0    | 0      | 5     | 9     |
| 5:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 5:15 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 2                            | 0         | 0    | 0      | 2     | 2     |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|                    | Waltham Street |          |           |          |           | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |           |          |           | Washington Street (Route 16) |           |          |          |           | Total     |
|--------------------|----------------|----------|-----------|----------|-----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|-----------|----------|-----------|------------------------------|-----------|----------|----------|-----------|-----------|
|                    | from North     |          |           |          |           | from Northeast              |            |           |          |          | from East         |          |           |          |           | from West                    |           |          |          |           |           |
|                    | Right          | Left     | Hard Left | U-Turn   | Total     | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru      | U-Turn   | Total     | Thru                         | Bear Left | Left     | U-Turn   | Total     |           |
| 5:30 PM            | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 2         | 0        | 2         | 0                            | 0         | 0        | 0        | 0         | 2         |
| 5:45 PM            | 1              | 0        | 0         | 0        | 1         | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1         | 0        | 1         | 1                            | 0         | 0        | 0        | 0         | 1         |
| <b>Total</b>       | <b>1</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>1</b>  | <b>0</b>                    | <b>0</b>   | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>          | <b>0</b> | <b>4</b>  | <b>0</b> | <b>4</b>  | <b>3</b>                     | <b>0</b>  | <b>0</b> | <b>0</b> | <b>3</b>  | <b>8</b>  |
| 6:00 PM            | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1         | 0        | 1         | 3                            | 0         | 0        | 0        | 0         | 3         |
| 6:15 PM            | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1         | 0        | 1         | 0                            | 0         | 0        | 0        | 0         | 0         |
| 6:30 PM            | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1         | 0        | 1         | 1                            | 0         | 0        | 0        | 0         | 1         |
| 6:45 PM            | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1         | 0        | 1         | 0                            | 0         | 0        | 0        | 0         | 0         |
| <b>Total</b>       | <b>0</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b>  | <b>0</b>                    | <b>0</b>   | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>          | <b>0</b> | <b>4</b>  | <b>0</b> | <b>4</b>  | <b>4</b>                     | <b>0</b>  | <b>0</b> | <b>0</b> | <b>4</b>  | <b>8</b>  |
| 7:00 PM            | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0         | 0        | 0         | 1                            | 0         | 0        | 0        | 0         | 1         |
| 7:15 PM            | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1         | 0        | 1         | 1                            | 1         | 0        | 0        | 0         | 2         |
| 7:30 PM            | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0         | 0        | 0         | 0                            | 0         | 0        | 0        | 0         | 0         |
| 7:45 PM            | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1         | 0        | 1         | 1                            | 0         | 0        | 0        | 0         | 1         |
| <b>Total</b>       | <b>0</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b>  | <b>0</b>                    | <b>0</b>   | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>          | <b>0</b> | <b>2</b>  | <b>0</b> | <b>2</b>  | <b>3</b>                     | <b>1</b>  | <b>0</b> | <b>0</b> | <b>4</b>  | <b>6</b>  |
| <b>Grand Total</b> | <b>10</b>      | <b>0</b> | <b>0</b>  | <b>0</b> | <b>10</b> | <b>0</b>                    | <b>8</b>   | <b>0</b>  | <b>0</b> | <b>8</b> | <b>0</b>          | <b>3</b> | <b>29</b> | <b>0</b> | <b>32</b> | <b>39</b>                    | <b>8</b>  | <b>0</b> | <b>0</b> | <b>47</b> | <b>97</b> |
| Approach %         | 100.0          | 0.0      | 0.0       | 0.0      |           | 0.0                         | 100.0      | 0.0       | 0.0      |          | 0.0               | 9.4      | 90.6      | 0.0      |           | 83.0                         | 17.0      | 0.0      | 0.0      |           |           |
| Total %            | 10.3           | 0.0      | 0.0       | 0.0      | 10.3      | 0.0                         | 8.2        | 0.0       | 0.0      | 8.2      | 0.0               | 3.1      | 29.9      | 0.0      | 33.0      | 40.2                         | 8.2       | 0.0      | 0.0      | 48.5      |           |
| Exiting Leg Total  | 3              |          |           |          |           | 8                           |            |           |          |          | 39                |          |           |          |           | 47                           |           |          |          |           | 97        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |          | Washington Street (Route 16) |           |          |          |          | Total     |
|---------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|----------|------------------------------|-----------|----------|----------|----------|-----------|
|                     | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |          | from West                    |           |          |          |          |           |
|                     | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total    | Thru                         | Bear Left | Left     | U-Turn   | Total    |           |
| 7:15 AM             | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 1        | 1        | 0        | 2        | 2                            | 0         | 0        | 0        | 0        | 2         |
| 7:30 AM             | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 1                            | 1         | 0        | 0        | 0        | 2         |
| 7:45 AM             | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 0                            | 0         | 0        | 0        | 0        | 0         |
| 8:00 AM             | 0              | 0        | 0         | 0        | 0        | 0                           | 2          | 0         | 0        | 2        | 0                 | 0        | 1        | 0        | 1        | 0                            | 1         | 0        | 0        | 0        | 1         |
| <b>Total Volume</b> | <b>0</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>                    | <b>4</b>   | <b>0</b>  | <b>0</b> | <b>4</b> | <b>0</b>          | <b>1</b> | <b>2</b> | <b>0</b> | <b>3</b> | <b>3</b>                     | <b>2</b>  | <b>0</b> | <b>0</b> | <b>5</b> | <b>12</b> |
| % Approach Total    | 0.0            | 0.0      | 0.0       | 0.0      |          | 0.0                         | 100.0      | 0.0       | 0.0      |          | 0.0               | 33.3     | 66.7     | 0.0      |          | 60.0                         | 40.0      | 0.0      | 0.0      |          |           |
| PHF                 | 0.000          | 0.000    | 0.000     | 0.000    | 0.000    | 0.000                       | 0.500      | 0.000     | 0.000    | 0.500    | 0.000             | 0.250    | 0.500    | 0.000    | 0.375    | 0.375                        | 0.500     | 0.000    | 0.000    | 0.625    | 0.600     |
| Entering Leg        | 0              | 0        | 0         | 0        | 0        | 0                           | 4          | 0         | 0        | 4        | 0                 | 1        | 2        | 0        | 3        | 3                            | 2         | 0        | 0        | 5        | 12        |
| Exiting Leg         | 1              |          |           |          |          | 2                           |            |           |          |          | 3                 |          |          |          |          | 6                            |           |          |          |          | 12        |
| <b>Total</b>        | <b>1</b>       |          |           |          |          | <b>6</b>                    |            |           |          |          | <b>6</b>          |          |          |          |          | <b>11</b>                    |           |          |          |          | <b>24</b> |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |          | Washington Street (Route 16) |           |          |          |          | Total     |
|---------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|----------|------------------------------|-----------|----------|----------|----------|-----------|
|                     | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |          | from West                    |           |          |          |          |           |
|                     | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total    | Thru                         | Bear Left | Left     | U-Turn   | Total    |           |
| 1:45 PM             | 0              | 0        | 0         | 0        | 0        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 0        | 0        | 0        | 0                            | 0         | 0        | 0        | 0        | 0         |
| 2:00 PM             | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 1        | 0        | 1        | 0                            | 1         | 0        | 0        | 0        | 1         |
| 2:15 PM             | 0              | 0        | 0         | 0        | 0        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 3                            | 1         | 0        | 0        | 0        | 4         |
| 2:30 PM             | 1              | 0        | 0         | 0        | 1        | 0                           | 0          | 0         | 0        | 0        | 0                 | 0        | 0        | 0        | 0        | 1                            | 0         | 0        | 0        | 0        | 1         |
| <b>Total Volume</b> | <b>1</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>1</b> | <b>0</b>                    | <b>1</b>   | <b>0</b>  | <b>0</b> | <b>1</b> | <b>0</b>          | <b>0</b> | <b>1</b> | <b>0</b> | <b>1</b> | <b>4</b>                     | <b>2</b>  | <b>0</b> | <b>0</b> | <b>6</b> | <b>9</b>  |
| % Approach Total    | 100.0          | 0.0      | 0.0       | 0.0      |          | 0.0                         | 100.0      | 0.0       | 0.0      |          | 0.0               | 0.0      | 100.0    | 0.0      |          | 66.7                         | 33.3      | 0.0      | 0.0      |          |           |
| PHF                 | 0.250          | 0.000    | 0.000     | 0.000    | 0.250    | 0.000                       | 0.250      | 0.000     | 0.000    | 0.250    | 0.000             | 0.000    | 0.250    | 0.000    | 0.250    | 0.333                        | 0.500     | 0.000    | 0.000    | 0.375    | 0.563     |
| Entering Leg        | 1              | 0        | 0         | 0        | 1        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 1        | 0        | 1        | 4                            | 2         | 0        | 0        | 6        | 9         |
| Exiting Leg         | 0              |          |           |          |          | 2                           |            |           |          |          | 4                 |          |          |          |          | 3                            |           |          |          |          | 9         |
| <b>Total</b>        | <b>1</b>       |          |           |          |          | <b>3</b>                    |            |           |          |          | <b>5</b>          |          |          |          |          | <b>9</b>                     |           |          |          |          | <b>18</b> |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|---------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|         | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|         | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 5:15 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 2                            | 0         | 0    | 0      | 0     | 2     |
| 5:30 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2    | 0      | 2     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 5:45 PM | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 1                            | 0         | 0    | 0      | 0     | 1     |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Buses**

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 6:00 PM          | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 3                            | 0         | 0     | 0      | 3     | 4     |
| Total Volume     | 1              | 0     | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 4     | 4      | 6     | 0                            | 0         | 0     | 0      | 6     | 11    |
| % Approach Total | 100.0          | 0.0   | 0.0       | 0.0    |       | 0.0                         | 0.0        | 0.0       | 0.0    |       | 0.0               | 0.0   | 100.0 | 0.0    |       | 100.0                        | 0.0       | 0.0   | 0.0    |       |       |
| PHF              | 0.250          | 0.000 | 0.000     | 0.000  | 0.250 | 0.000                       | 0.000      | 0.000     | 0.000  | 0.000 | 0.000             | 0.000 | 0.500 | 0.500  | 0.500 | 0.000                        | 0.000     | 0.000 | 0.000  | 0.500 | 0.688 |
| Entering Leg     | 1              | 0     | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 4     | 4      | 6     | 0                            | 0         | 0     | 0      | 6     | 11    |
| Exiting Leg      |                |       |           |        | 0     |                             |            |           |        | 0     |                   |       |       | 6      |       |                              |           |       |        | 5     | 11    |
| Total            |                |       |           |        | 1     |                             |            |           |        | 0     |                   |       |       | 10     |       |                              |           |       | 11     |       | 22    |



PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Single-Unit Trucks**

|          | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|----------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|          | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|          | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 6:00 AM  | 2              | 0    | 0         | 0      | 2     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 1         | 0    | 0      | 1     | 3     |
| 6:15 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 1    | 0      | 1     | 2                            | 0         | 0    | 0      | 2     | 5     |
| 6:30 AM  | 2              | 0    | 0         | 0      | 2     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1    | 0      | 1     | 3                            | 1         | 0    | 0      | 4     | 8     |
| 6:45 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 3    | 0      | 3     | 2                            | 6         | 0    | 0      | 8     | 13    |
| Total    | 5              | 0    | 0         | 0      | 5     | 0                           | 4          | 0         | 0      | 4     | 0                 | 0     | 5    | 0      | 5     | 7                            | 8         | 0    | 0      | 15    | 29    |
| 7:00 AM  | 2              | 0    | 0         | 0      | 2     | 0                           | 3          | 0         | 0      | 3     | 0                 | 0     | 0    | 0      | 0     | 2                            | 2         | 0    | 0      | 4     | 9     |
| 7:15 AM  | 2              | 0    | 0         | 0      | 2     | 1                           | 1          | 0         | 0      | 2     | 0                 | 0     | 1    | 0      | 1     | 6                            | 3         | 0    | 0      | 9     | 14    |
| 7:30 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 3          | 0         | 0      | 3     | 0                 | 4     | 3    | 0      | 7     | 7                            | 2         | 0    | 0      | 9     | 20    |
| 7:45 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 1     | 4     |
| Total    | 6              | 0    | 0         | 0      | 6     | 1                           | 9          | 0         | 0      | 10    | 0                 | 4     | 4    | 0      | 8     | 16                           | 7         | 0    | 0      | 23    | 47    |
| 8:00 AM  | 2              | 0    | 0         | 0      | 2     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 5                            | 5         | 0    | 0      | 10    | 13    |
| 8:15 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 0    | 0      | 0     | 2                            | 1         | 0    | 0      | 3     | 5     |
| 8:30 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 4    | 0      | 4     | 6                            | 2         | 0    | 0      | 8     | 14    |
| 8:45 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 2    | 0      | 3     | 1                            | 2         | 0    | 0      | 3     | 7     |
| Total    | 2              | 0    | 0         | 0      | 2     | 0                           | 5          | 0         | 0      | 5     | 0                 | 1     | 7    | 0      | 8     | 14                           | 10        | 0    | 0      | 24    | 39    |
| 9:00 AM  | 2              | 0    | 0         | 0      | 2     | 1                           | 1          | 0         | 0      | 2     | 0                 | 1     | 1    | 0      | 2     | 3                            | 3         | 0    | 0      | 6     | 12    |
| 9:15 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 0    | 0      | 1     | 1                            | 6         | 0    | 0      | 7     | 9     |
| 9:30 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 4          | 0         | 0      | 4     | 0                 | 0     | 0    | 0      | 0     | 2                            | 4         | 0    | 0      | 6     | 10    |
| 9:45 AM  | 2              | 0    | 0         | 0      | 2     | 0                           | 4          | 0         | 0      | 4     | 0                 | 1     | 4    | 0      | 5     | 7                            | 1         | 1    | 0      | 9     | 20    |
| Total    | 5              | 0    | 0         | 0      | 5     | 1                           | 9          | 0         | 0      | 10    | 0                 | 3     | 5    | 0      | 8     | 13                           | 14        | 1    | 0      | 28    | 51    |
| 10:00 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 4    | 0      | 4     | 1                            | 2         | 0    | 0      | 3     | 9     |
| 10:15 AM | 4              | 0    | 0         | 0      | 4     | 0                           | 0          | 0         | 0      | 0     | 0                 | 4     | 1    | 0      | 5     | 3                            | 2         | 0    | 0      | 5     | 14    |
| 10:30 AM | 1              | 0    | 0         | 0      | 1     | 0                           | 3          | 0         | 0      | 3     | 0                 | 0     | 3    | 0      | 3     | 1                            | 0         | 0    | 0      | 1     | 8     |
| 10:45 AM | 4              | 0    | 0         | 0      | 4     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 1    | 0      | 2     | 5                            | 3         | 0    | 0      | 8     | 16    |
| Total    | 9              | 0    | 0         | 0      | 9     | 0                           | 7          | 0         | 0      | 7     | 0                 | 5     | 9    | 0      | 14    | 10                           | 7         | 0    | 0      | 17    | 47    |
| 11:00 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 3     | 3    | 0      | 6     | 2                            | 6         | 0    | 0      | 8     | 16    |
| 11:15 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 2     | 3    | 0      | 5     | 2                            | 3         | 0    | 0      | 5     | 12    |
| 11:30 AM | 3              | 0    | 0         | 0      | 3     | 0                           | 3          | 0         | 0      | 3     | 0                 | 1     | 2    | 0      | 3     | 1                            | 1         | 0    | 0      | 2     | 11    |
| 11:45 AM | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 3     |
| Total    | 4              | 0    | 0         | 0      | 4     | 0                           | 8          | 0         | 0      | 8     | 0                 | 6     | 9    | 0      | 15    | 5                            | 10        | 0    | 0      | 15    | 42    |
| 12:00 PM | 1              | 0    | 0         | 0      | 1     | 0                           | 6          | 0         | 0      | 6     | 0                 | 1     | 3    | 0      | 4     | 4                            | 3         | 0    | 0      | 7     | 18    |
| 12:15 PM | 1              | 0    | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 2    | 0      | 3     | 2                            | 2         | 0    | 0      | 4     | 10    |
| 12:30 PM | 3              | 0    | 0         | 0      | 3     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 2    | 0      | 3     | 0                            | 1         | 0    | 0      | 1     | 9     |
| 12:45 PM | 2              | 0    | 0         | 0      | 2     | 2                           | 0          | 0         | 0      | 2     | 0                 | 0     | 2    | 0      | 2     | 1                            | 6         | 0    | 0      | 7     | 13    |
| Total    | 7              | 0    | 0         | 0      | 7     | 2                           | 10         | 0         | 0      | 12    | 0                 | 3     | 9    | 0      | 12    | 7                            | 12        | 0    | 0      | 19    | 50    |
| 1:00 PM  | 2              | 0    | 0         | 0      | 2     | 0                           | 4          | 0         | 0      | 4     | 0                 | 1     | 2    | 0      | 3     | 5                            | 2         | 0    | 0      | 7     | 16    |
| 1:15 PM  | 3              | 0    | 0         | 0      | 3     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 1    | 0      | 2     | 1                            | 3         | 0    | 0      | 4     | 10    |
| 1:30 PM  | 1              | 0    | 0         | 0      | 1     | 1                           | 2          | 0         | 0      | 3     | 0                 | 0     | 0    | 0      | 0     | 2                            | 0         | 0    | 0      | 2     | 6     |
| 1:45 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 2                            | 2         | 0    | 0      | 4     | 4     |
| Total    | 6              | 0    | 0         | 0      | 6     | 1                           | 7          | 0         | 0      | 8     | 0                 | 2     | 3    | 0      | 5     | 10                           | 7         | 0    | 0      | 17    | 36    |
| 2:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 2    | 0      | 3     | 0                            | 0         | 0    | 0      | 0     | 5     |
| 2:15 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 2                            | 2         | 0    | 0      | 4     | 6     |
| 2:30 PM  | 2              | 0    | 0         | 0      | 2     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 2    | 0      | 2     | 1                            | 2         | 0    | 0      | 3     | 8     |
| 2:45 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 2    | 0      | 2     | 1                            | 2         | 0    | 0      | 3     | 8     |
| Total    | 4              | 0    | 0         | 0      | 4     | 0                           | 6          | 0         | 0      | 6     | 0                 | 1     | 6    | 0      | 7     | 4                            | 6         | 0    | 0      | 10    | 27    |
| 3:00 PM  | 1              | 0    | 0         | 0      | 1     | 1                           | 0          | 0         | 0      | 1     | 0                 | 0     | 1    | 0      | 1     | 0                            | 4         | 0    | 0      | 4     | 7     |
| 3:15 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 2    | 0      | 3     | 2                            | 0         | 0    | 0      | 2     | 6     |
| 3:30 PM  | 2              | 0    | 0         | 0      | 2     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 1                            | 2         | 0    | 0      | 3     | 6     |
| 3:45 PM  | 1              | 0    | 0         | 0      | 1     | 1                           | 1          | 0         | 0      | 2     | 0                 | 1     | 2    | 0      | 3     | 2                            | 0         | 0    | 0      | 2     | 8     |
| Total    | 5              | 0    | 0         | 0      | 5     | 2                           | 2          | 0         | 0      | 4     | 0                 | 2     | 5    | 0      | 7     | 5                            | 6         | 0    | 0      | 11    | 27    |
| 4:00 PM  | 0              | 0    | 0         | 0      | 0     | 1                           | 0          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 2                            | 3         | 0    | 0      | 5     | 6     |
| 4:15 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 2         | 0    | 0      | 3     | 3     |
| 4:30 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1    | 0      | 1     | 1                            | 2         | 0    | 0      | 3     | 5     |
| 4:45 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 0    | 0      | 0     | 1                            | 2         | 0    | 0      | 3     | 5     |
| Total    | 0              | 0    | 0         | 0      | 0     | 1                           | 3          | 0         | 0      | 4     | 0                 | 0     | 1    | 0      | 1     | 5                            | 9         | 0    | 0      | 14    | 19    |
| 5:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 0    | 0      | 1     | 0                            | 3         | 0    | 0      | 3     | 5     |
| 5:15 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 2    | 0      | 3     | 2                            | 1         | 0    | 0      | 3     | 6     |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class: **Single-Unit Trucks**



|                          | Waltham Street |          |           |          |           | Watertown Street (Route 16) |            |           |          |           | Washington Street |           |           |          |           | Washington Street (Route 16) |            |          |          |            | Total      |  |  |  |  |            |
|--------------------------|----------------|----------|-----------|----------|-----------|-----------------------------|------------|-----------|----------|-----------|-------------------|-----------|-----------|----------|-----------|------------------------------|------------|----------|----------|------------|------------|--|--|--|--|------------|
|                          | from North     |          |           |          |           | from Northeast              |            |           |          |           | from East         |           |           |          |           | from West                    |            |          |          |            |            |  |  |  |  |            |
|                          | Right          | Left     | Hard Left | U-Turn   | Total     | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total     | Hard Right        | Right     | Thru      | U-Turn   | Total     | Thru                         | Bear Left  | Left     | U-Turn   | Total      |            |  |  |  |  |            |
| 5:30 PM                  | 0              | 0        | 0         | 0        | 0         | 0                           | 1          | 0         | 0        | 1         | 0                 | 0         | 0         | 0        | 0         | 0                            | 2          | 0        | 0        | 2          | 3          |  |  |  |  |            |
| 5:45 PM                  | 1              | 0        | 0         | 0        | 1         | 0                           | 3          | 0         | 0        | 3         | 0                 | 0         | 3         | 0        | 3         | 1                            | 0          | 0        | 0        | 1          | 8          |  |  |  |  |            |
| <b>Total</b>             | <b>1</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>1</b>  | <b>0</b>                    | <b>5</b>   | <b>0</b>  | <b>0</b> | <b>5</b>  | <b>0</b>          | <b>2</b>  | <b>5</b>  | <b>0</b> | <b>7</b>  | <b>3</b>                     | <b>6</b>   | <b>0</b> | <b>0</b> | <b>9</b>   | <b>22</b>  |  |  |  |  |            |
| 6:00 PM                  | 1              | 0        | 0         | 0        | 1         | 0                           | 2          | 0         | 0        | 2         | 0                 | 0         | 1         | 0        | 1         | 0                            | 1          | 0        | 0        | 1          | 5          |  |  |  |  |            |
| 6:15 PM                  | 1              | 0        | 0         | 0        | 1         | 0                           | 0          | 0         | 0        | 0         | 0                 | 0         | 1         | 0        | 1         | 0                            | 4          | 0        | 0        | 4          | 6          |  |  |  |  |            |
| 6:30 PM                  | 1              | 0        | 0         | 0        | 1         | 0                           | 0          | 0         | 0        | 0         | 0                 | 0         | 0         | 0        | 0         | 3                            | 0          | 0        | 3        | 4          |            |  |  |  |  |            |
| 6:45 PM                  | 0              | 0        | 0         | 0        | 0         | 3                           | 1          | 0         | 0        | 4         | 0                 | 0         | 0         | 0        | 0         | 1                            | 1          | 0        | 0        | 2          | 6          |  |  |  |  |            |
| <b>Total</b>             | <b>3</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>3</b>  | <b>3</b>                    | <b>3</b>   | <b>0</b>  | <b>0</b> | <b>6</b>  | <b>0</b>          | <b>0</b>  | <b>2</b>  | <b>0</b> | <b>2</b>  | <b>1</b>                     | <b>9</b>   | <b>0</b> | <b>0</b> | <b>10</b>  | <b>21</b>  |  |  |  |  |            |
| 7:00 PM                  | 1              | 0        | 0         | 0        | 1         | 0                           | 1          | 0         | 0        | 1         | 0                 | 0         | 0         | 0        | 0         | 0                            | 0          | 0        | 0        | 0          | 2          |  |  |  |  |            |
| 7:15 PM                  | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0         | 0                 | 0         | 0         | 0        | 0         | 0                            | 0          | 0        | 0        | 0          | 0          |  |  |  |  |            |
| 7:30 PM                  | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0         | 0                 | 0         | 0         | 0        | 0         | 1                            | 0          | 0        | 0        | 1          | 1          |  |  |  |  |            |
| 7:45 PM                  | 0              | 0        | 0         | 0        | 0         | 0                           | 0          | 0         | 0        | 0         | 0                 | 0         | 0         | 0        | 0         | 0                            | 0          | 0        | 0        | 0          | 0          |  |  |  |  |            |
| <b>Total</b>             | <b>1</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>1</b>  | <b>0</b>                    | <b>1</b>   | <b>0</b>  | <b>0</b> | <b>1</b>  | <b>0</b>          | <b>0</b>  | <b>0</b>  | <b>0</b> | <b>0</b>  | <b>1</b>                     | <b>0</b>   | <b>0</b> | <b>0</b> | <b>1</b>   | <b>3</b>   |  |  |  |  |            |
| <b>Grand Total</b>       | <b>58</b>      | <b>0</b> | <b>0</b>  | <b>0</b> | <b>58</b> | <b>11</b>                   | <b>79</b>  | <b>0</b>  | <b>0</b> | <b>90</b> | <b>0</b>          | <b>29</b> | <b>70</b> | <b>0</b> | <b>99</b> | <b>101</b>                   | <b>111</b> | <b>1</b> | <b>0</b> | <b>213</b> | <b>460</b> |  |  |  |  |            |
| Approach %               | 100.0          | 0.0      | 0.0       | 0.0      |           | 12.2                        | 87.8       | 0.0       | 0.0      |           | 0.0               | 29.3      | 70.7      | 0.0      |           | 47.4                         | 52.1       | 0.5      | 0.0      |            |            |  |  |  |  |            |
| Total %                  | 12.6           | 0.0      | 0.0       | 0.0      | 12.6      | 2.4                         | 17.2       | 0.0       | 0.0      | 19.6      | 0.0               | 6.3       | 15.2      | 0.0      | 21.5      | 22.0                         | 24.1       | 0.2      | 0.0      | 46.3       |            |  |  |  |  |            |
| <b>Exiting Leg Total</b> |                |          |           |          |           | <b>41</b>                   |            |           |          |           | <b>111</b>        |           |           |          |           | <b>101</b>                   |            |          |          |            | <b>207</b> |  |  |  |  | <b>460</b> |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |           | Washington Street (Route 16) |           |          |          |           | Total     |  |  |  |  |            |
|---------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|-----------|------------------------------|-----------|----------|----------|-----------|-----------|--|--|--|--|------------|
|                     | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |           | from West                    |           |          |          |           |           |  |  |  |  |            |
|                     | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total     | Thru                         | Bear Left | Left     | U-Turn   | Total     |           |  |  |  |  |            |
| 6:45 AM             | 1              | 0        | 0         | 0        | 1        | 0                           | 1          | 0         | 0        | 1        | 0                 | 0        | 3        | 0        | 3         | 2                            | 6         | 0        | 0        | 8         | 13        |  |  |  |  |            |
| 7:00 AM             | 2              | 0        | 0         | 0        | 2        | 0                           | 3          | 0         | 0        | 3        | 0                 | 0        | 0        | 0        | 0         | 2                            | 2         | 0        | 0        | 4         | 9         |  |  |  |  |            |
| 7:15 AM             | 2              | 0        | 0         | 0        | 2        | 1                           | 1          | 0         | 0        | 2        | 0                 | 0        | 1        | 0        | 1         | 6                            | 3         | 0        | 0        | 9         | 14        |  |  |  |  |            |
| 7:30 AM             | 1              | 0        | 0         | 0        | 1        | 0                           | 3          | 0         | 0        | 3        | 0                 | 4        | 3        | 0        | 7         | 7                            | 2         | 0        | 0        | 9         | 20        |  |  |  |  |            |
| <b>Total Volume</b> | <b>6</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>6</b> | <b>1</b>                    | <b>8</b>   | <b>0</b>  | <b>0</b> | <b>9</b> | <b>0</b>          | <b>4</b> | <b>7</b> | <b>0</b> | <b>11</b> | <b>17</b>                    | <b>13</b> | <b>0</b> | <b>0</b> | <b>30</b> | <b>56</b> |  |  |  |  |            |
| % Approach Total    | 100.0          | 0.0      | 0.0       | 0.0      |          | 11.1                        | 88.9       | 0.0       | 0.0      |          | 0.0               | 36.4     | 63.6     | 0.0      |           | 56.7                         | 43.3      | 0.0      | 0.0      |           |           |  |  |  |  |            |
| PHF                 | 0.750          | 0.000    | 0.000     | 0.000    | 0.750    | 0.250                       | 0.667      | 0.000     | 0.000    | 0.750    | 0.000             | 0.250    | 0.583    | 0.000    | 0.393     | 0.607                        | 0.542     | 0.000    | 0.000    | 0.833     | 0.700     |  |  |  |  |            |
| Entering Leg        | 6              | 0        | 0         | 0        | 6        | 1                           | 8          | 0         | 0        | 9        | 0                 | 4        | 7        | 0        | 11        | 17                           | 13        | 0        | 0        | 30        | 56        |  |  |  |  |            |
| Exiting Leg         |                |          |           |          |          | <b>5</b>                    |            |           |          |          | <b>13</b>         |          |          |          |           | <b>17</b>                    |           |          |          |           | <b>21</b> |  |  |  |  | <b>56</b>  |
| <b>Total</b>        |                |          |           |          |          | <b>11</b>                   |            |           |          |          | <b>22</b>         |          |          |          |           | <b>28</b>                    |           |          |          |           | <b>51</b> |  |  |  |  | <b>112</b> |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Waltham Street |          |           |          |          | Watertown Street (Route 16) |            |           |          |          | Washington Street |          |          |          |           | Washington Street (Route 16) |           |          |          |           | Total     |  |  |  |  |            |
|---------------------|----------------|----------|-----------|----------|----------|-----------------------------|------------|-----------|----------|----------|-------------------|----------|----------|----------|-----------|------------------------------|-----------|----------|----------|-----------|-----------|--|--|--|--|------------|
|                     | from North     |          |           |          |          | from Northeast              |            |           |          |          | from East         |          |          |          |           | from West                    |           |          |          |           |           |  |  |  |  |            |
|                     | Right          | Left     | Hard Left | U-Turn   | Total    | Hard Right                  | Bear Right | Hard Left | U-Turn   | Total    | Hard Right        | Right    | Thru     | U-Turn   | Total     | Thru                         | Bear Left | Left     | U-Turn   | Total     |           |  |  |  |  |            |
| 10:45 AM            | 4              | 0        | 0         | 0        | 4        | 0                           | 2          | 0         | 0        | 2        | 0                 | 1        | 1        | 0        | 2         | 5                            | 3         | 0        | 0        | 8         | 16        |  |  |  |  |            |
| 11:00 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 2          | 0         | 0        | 2        | 0                 | 3        | 3        | 0        | 6         | 2                            | 6         | 0        | 0        | 8         | 16        |  |  |  |  |            |
| 11:15 AM            | 0              | 0        | 0         | 0        | 0        | 0                           | 2          | 0         | 0        | 2        | 0                 | 2        | 3        | 0        | 5         | 2                            | 3         | 0        | 0        | 5         | 12        |  |  |  |  |            |
| 11:30 AM            | 3              | 0        | 0         | 0        | 3        | 0                           | 3          | 0         | 0        | 3        | 0                 | 1        | 2        | 0        | 3         | 1                            | 1         | 0        | 0        | 2         | 11        |  |  |  |  |            |
| <b>Total Volume</b> | <b>7</b>       | <b>0</b> | <b>0</b>  | <b>0</b> | <b>7</b> | <b>0</b>                    | <b>9</b>   | <b>0</b>  | <b>0</b> | <b>9</b> | <b>0</b>          | <b>7</b> | <b>9</b> | <b>0</b> | <b>16</b> | <b>10</b>                    | <b>13</b> | <b>0</b> | <b>0</b> | <b>23</b> | <b>55</b> |  |  |  |  |            |
| % Approach Total    | 100.0          | 0.0      | 0.0       | 0.0      |          | 0.0                         | 100.0      | 0.0       | 0.0      |          | 0.0               | 43.8     | 56.3     | 0.0      |           | 43.5                         | 56.5      | 0.0      | 0.0      |           |           |  |  |  |  |            |
| PHF                 | 0.438          | 0.000    | 0.000     | 0.000    | 0.438    | 0.000                       | 0.750      | 0.000     | 0.000    | 0.750    | 0.000             | 0.583    | 0.750    | 0.000    | 0.667     | 0.500                        | 0.542     | 0.000    | 0.000    | 0.719     | 0.859     |  |  |  |  |            |
| Entering Leg        | 7              | 0        | 0         | 0        | 7        | 0                           | 9          | 0         | 0        | 9        | 0                 | 7        | 9        | 0        | 16        | 10                           | 13        | 0        | 0        | 23        | 55        |  |  |  |  |            |
| Exiting Leg         |                |          |           |          |          | <b>7</b>                    |            |           |          |          | <b>13</b>         |          |          |          |           | <b>10</b>                    |           |          |          |           | <b>25</b> |  |  |  |  | <b>55</b>  |
| <b>Total</b>        |                |          |           |          |          | <b>14</b>                   |            |           |          |          | <b>22</b>         |          |          |          |           | <b>26</b>                    |           |          |          |           | <b>48</b> |  |  |  |  | <b>110</b> |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|---------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|         | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|         | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 2:15 PM | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 2                            | 2         | 0    | 0      | 4     | 6     |
| 2:30 PM | 2              | 0    | 0         | 0      | 2     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 2    | 0      | 2     | 1                            | 2         | 0    | 0      | 3     | 8     |
| 2:45 PM | 1              | 0    | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 2    | 0      | 2     | 1                            | 2         | 0    | 0      | 3     | 8     |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Single-Unit Trucks**

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 3:00 PM          | 1              | 0     | 0         | 0      | 1     | 1                           | 0          | 0         | 0      | 1     | 0                 | 0     | 1     | 0      | 1     | 0                            | 4         | 0     | 0      | 4     | 7     |
| Total Volume     | 5              | 0     | 0         | 0      | 5     | 1                           | 4          | 0         | 0      | 5     | 0                 | 0     | 5     | 0      | 5     | 4                            | 10        | 0     | 0      | 14    | 29    |
| % Approach Total | 100.0          | 0.0   | 0.0       | 0.0    |       | 20.0                        | 80.0       | 0.0       | 0.0    |       | 0.0               | 0.0   | 100.0 | 0.0    |       | 28.6                         | 71.4      | 0.0   | 0.0    |       |       |
| PHF              | 0.625          | 0.000 | 0.000     | 0.000  | 0.625 | 0.250                       | 0.500      | 0.000     | 0.000  | 0.625 | 0.000             | 0.000 | 0.625 | 0.000  | 0.625 | 0.500                        | 0.625     | 0.000 | 0.000  | 0.875 | 0.906 |
| Entering Leg     | 5              | 0     | 0         | 0      | 5     | 1                           | 4          | 0         | 0      | 5     | 0                 | 0     | 5     | 0      | 5     | 4                            | 10        | 0     | 0      | 14    | 29    |
| Exiting Leg      |                |       |           |        | 1     |                             |            |           |        | 10    |                   |       | 4     |        | 4     |                              |           |       |        | 14    | 29    |
| Total            |                |       |           |        | 6     |                             |            |           |        | 15    |                   |       | 9     |        | 9     |                              |           |       |        | 28    | 58    |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|          | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|----------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|          | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|          | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 6:00 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 6:15 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 6:30 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 2         | 0    | 0      | 0     | 2     |
| 6:45 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 0     | 1     |
| Total    | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 1                            | 2         | 0    | 0      | 0     | 3     |
| 7:00 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 7:15 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 1         | 0    | 0      | 0     | 1     |
| 7:30 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 1         | 0    | 0      | 0     | 2     |
| 7:45 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 2                            | 0         | 0    | 0      | 0     | 2     |
| Total    | 1              | 0    | 0         | 0      | 1     | 0                           | 2          | 0         | 0      | 2     | 0                 | 0     | 0    | 0      | 0     | 3                            | 2         | 0    | 0      | 0     | 5     |
| 8:00 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 2                            | 2         | 0    | 0      | 0     | 4     |
| 8:15 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 8:30 AM  | 2              | 0    | 0         | 0      | 2     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1    | 0      | 1     | 1                            | 0         | 0    | 0      | 0     | 1     |
| 8:45 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 1         | 0    | 0      | 0     | 1     |
| Total    | 4              | 0    | 0         | 0      | 4     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1    | 0      | 1     | 3                            | 3         | 0    | 0      | 0     | 6     |
| 9:00 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 9:15 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 1         | 0    | 0      | 0     | 2     |
| 9:30 AM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 0    | 1      | 0     | 3                            | 0         | 0    | 0      | 0     | 3     |
| 9:45 AM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 1                            | 1         | 0    | 0      | 0     | 2     |
| Total    | 2              | 0    | 0         | 0      | 2     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 2    | 0      | 2     | 2                            | 5         | 0    | 0      | 0     | 7     |
| 10:00 AM | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 0    | 2      | 0     | 1                            | 0         | 0    | 0      | 0     | 1     |
| 10:15 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 0     | 1     |
| 10:30 AM | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 0    | 1      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 10:45 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 0    | 1      | 2     | 0                            | 0         | 0    | 0      | 0     | 2     |
| Total    | 2              | 0    | 0         | 0      | 2     | 0                           | 2          | 0         | 0      | 2     | 0                 | 2     | 2    | 0      | 4     | 2                            | 2         | 0    | 0      | 0     | 4     |
| 11:00 AM | 2              | 0    | 0         | 0      | 2     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 0     | 1     |
| 11:15 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 11:30 AM | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 11:45 AM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| Total    | 3              | 0    | 0         | 0      | 3     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 0                            | 1         | 0    | 0      | 0     | 1     |
| 12:00 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 1         | 0    | 0      | 0     | 2     |
| 12:15 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 12:30 PM | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 1         | 0      | 1     | 0                 | 1     | 0    | 2      | 2     | 1                            | 0         | 0    | 0      | 0     | 3     |
| 12:45 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 0    | 1      | 1     | 1                            | 0         | 0    | 0      | 0     | 2     |
| Total    | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 1         | 0      | 2     | 0                 | 2     | 2    | 0      | 4     | 4                            | 3         | 0    | 0      | 0     | 7     |
| 1:00 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 1:15 PM  | 2              | 0    | 0         | 0      | 2     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 0    | 1      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 1:30 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 1:45 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| Total    | 3              | 0    | 0         | 0      | 3     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 1                            | 0         | 0    | 0      | 0     | 1     |
| 2:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 1    | 0      | 2     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 2:15 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 0    | 1      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 2:30 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 0     | 1     |
| 2:45 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 0     | 1     |
| Total    | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 2    | 0      | 3     | 1                            | 2         | 0    | 0      | 0     | 3     |
| 3:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 3:15 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 0    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 3:30 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 3:45 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| Total    | 0              | 0    | 0         | 0      | 0     | 0                           | 2          | 0         | 0      | 2     | 0                 | 1     | 0    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 4:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 0     | 1     |
| 4:15 PM  | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 0    | 1      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 4:30 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 0    | 1      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 4:45 PM  | 0              | 0    | 0         | 0      | 0     | 1                           | 0          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| Total    | 1              | 0    | 0         | 0      | 1     | 1                           | 0          | 0         | 0      | 1     | 0                 | 0     | 2    | 0      | 2     | 2                            | 1         | 0    | 0      | 0     | 3     |
| 5:00 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 5:15 PM  | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|                    | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|--------------------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|                    | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|                    | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 5:30 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 5:45 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 0     | 1     |
| <b>Total</b>       | 0              | 0    | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 1                            | 0         | 0    | 0      | 0     | 1     |
| 6:00 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 6:15 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 6:30 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 1         | 0    | 0      | 0     | 2     |
| 6:45 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| <b>Total</b>       | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 1                            | 1         | 0    | 0      | 0     | 2     |
| 7:00 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 7:15 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| 7:30 PM            | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 1     |
| 7:45 PM            | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0    | 0      | 0     | 0                            | 0         | 0    | 0      | 0     | 0     |
| <b>Total</b>       | 1              | 0    | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 0                            | 0         | 0    | 0      | 0     | 0     |
| <b>Grand Total</b> | 19             | 0    | 0         | 0      | 19    | 1                           | 11         | 1         | 0      | 13    | 0                 | 6     | 14   | 0      | 20    | 21                           | 22        | 0    | 0      | 43    | 95    |
| Approach %         | 100.0          | 0.0  | 0.0       | 0.0    |       | 7.7                         | 84.6       | 7.7       | 0.0    |       | 0.0               | 30.0  | 70.0 | 0.0    |       | 48.8                         | 51.2      | 0.0  | 0.0    |       |       |
| Total %            | 20.0           | 0.0  | 0.0       | 0.0    | 20.0  | 1.1                         | 11.6       | 1.1       | 0.0    | 13.7  | 0.0               | 6.3   | 14.7 | 0.0    | 21.1  | 22.1                         | 23.2      | 0.0  | 0.0    | 45.3  |       |
| Exiting Leg Total  | 7              |      |           |        |       | 22                          |            |           |        |       | 22                |       |      |        |       | 44                           |           |      |        |       | 95    |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|---------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                     | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                     | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 9:15 AM             | 1              | 0     | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                            | 1         | 0     | 0      | 2     | 3     |
| 9:30 AM             | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 0                            | 3         | 0     | 0      | 3     | 4     |
| 9:45 AM             | 1              | 0     | 0         | 0      | 1     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1     | 0      | 1     | 1                            | 1         | 0     | 0      | 2     | 4     |
| 10:00 AM            | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 1     | 0      | 2     | 0                            | 1         | 0     | 0      | 1     | 5     |
| <b>Total Volume</b> | 3              | 0     | 0         | 0      | 3     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 3     | 0      | 4     | 2                            | 6         | 0     | 0      | 8     | 16    |
| % Approach Total    | 100.0          | 0.0   | 0.0       | 0.0    |       | 0.0                         | 100.0      | 0.0       | 0.0    |       | 0.0               | 25.0  | 75.0  | 0.0    |       | 25.0                         | 75.0      | 0.0   | 0.0    |       |       |
| PHF                 | 0.750          | 0.000 | 0.000     | 0.000  | 0.750 | 0.000                       | 0.250      | 0.000     | 0.000  | 0.250 | 0.000             | 0.250 | 0.750 | 0.000  | 0.500 | 0.500                        | 0.500     | 0.000 | 0.000  | 0.667 | 0.800 |
| Entering Leg        | 3              | 0     | 0         | 0      | 3     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 3     | 0      | 4     | 2                            | 6         | 0     | 0      | 8     | 16    |
| Exiting Leg         | 1              |       |           |        |       | 6                           |            |           |        |       | 2                 |       |       |        |       | 7                            |           |       |        |       | 16    |
| <b>Total</b>        | 4              |       |           |        |       | 7                           |            |           |        |       | 6                 |       |       |        |       | 15                           |           |       |        |       | 32    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|---------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                     | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                     | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 12:00 PM            | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 1                            | 1         | 0     | 0      | 2     | 2     |
| 12:15 PM            | 0              | 0     | 0         | 0      | 0     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 1     | 0      | 1     | 0                            | 0         | 0     | 0      | 0     | 2     |
| 12:30 PM            | 1              | 0     | 0         | 0      | 1     | 0                           | 0          | 1         | 0      | 1     | 0                 | 1     | 1     | 0      | 2     | 2                            | 1         | 0     | 0      | 3     | 7     |
| 12:45 PM            | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 0     | 0      | 1     | 1                            | 1         | 0     | 0      | 2     | 3     |
| <b>Total Volume</b> | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 1         | 0      | 2     | 0                 | 2     | 2     | 0      | 4     | 4                            | 3         | 0     | 0      | 7     | 14    |
| % Approach Total    | 100.0          | 0.0   | 0.0       | 0.0    |       | 0.0                         | 50.0       | 50.0      | 0.0    |       | 0.0               | 50.0  | 50.0  | 0.0    |       | 57.1                         | 42.9      | 0.0   | 0.0    |       |       |
| PHF                 | 0.250          | 0.000 | 0.000     | 0.000  | 0.250 | 0.000                       | 0.250      | 0.250     | 0.000  | 0.500 | 0.000             | 0.500 | 0.500 | 0.000  | 0.500 | 0.500                        | 0.750     | 0.000 | 0.000  | 0.583 | 0.500 |
| Entering Leg        | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 1         | 0      | 2     | 0                 | 2     | 2     | 0      | 4     | 4                            | 3         | 0     | 0      | 7     | 14    |
| Exiting Leg         | 2              |       |           |        |       | 3                           |            |           |        |       | 5                 |       |       |        |       | 4                            |           |       |        |       | 14    |
| <b>Total</b>        | 3              |       |           |        |       | 5                           |            |           |        |       | 9                 |       |       |        |       | 11                           |           |       |        |       | 28    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Waltham Street |      |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |      |        |       | Washington Street (Route 16) |           |      |        |       | Total |
|---------|----------------|------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|------|--------|-------|------------------------------|-----------|------|--------|-------|-------|
|         | from North     |      |           |        |       | from Northeast              |            |           |        |       | from East         |       |      |        |       | from West                    |           |      |        |       |       |
|         | Right          | Left | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru | U-Turn | Total | Thru                         | Bear Left | Left | U-Turn | Total |       |
| 2:00 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 1     | 1    | 0      | 2     | 0                            | 0         | 0    | 0      | 0     | 2     |
| 2:15 PM | 0              | 0    | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 1    | 0      | 1     | 1                            | 0         | 0    | 0      | 1     | 2     |
| 2:30 PM | 1              | 0    | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 0     | 0    | 0      | 0     | 0                            | 1         | 0    | 0      | 1     | 3     |

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Articulated Trucks**

|                  | Waltham Street |       |           |        |       | Watertown Street (Route 16) |            |           |        |       | Washington Street |       |       |        |       | Washington Street (Route 16) |           |       |        |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-----------------------------|------------|-----------|--------|-------|-------------------|-------|-------|--------|-------|------------------------------|-----------|-------|--------|-------|-------|
|                  | from North     |       |           |        |       | from Northeast              |            |           |        |       | from East         |       |       |        |       | from West                    |           |       |        |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | Total | Hard Right        | Right | Thru  | U-Turn | Total | Thru                         | Bear Left | Left  | U-Turn | Total |       |
| 2:45 PM          | 0              | 0     | 0         | 0      | 0     | 0                           | 0          | 0         | 0      | 0     | 0                 | 0     | 0     | 0      | 0     | 0                            | 1         | 0     | 0      | 1     | 1     |
| Total Volume     | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 2     | 0      | 3     | 1                            | 2         | 0     | 0      | 3     | 8     |
| % Approach Total | 100.0          | 0.0   | 0.0       | 0.0    |       | 0.0                         | 100.0      | 0.0       | 0.0    |       | 0.0               | 33.3  | 66.7  | 0.0    |       | 33.3                         | 66.7      | 0.0   | 0.0    |       |       |
| PHF              | 0.250          | 0.000 | 0.000     | 0.000  | 0.250 | 0.000                       | 0.250      | 0.000     | 0.000  | 0.250 | 0.000             | 0.250 | 0.500 | 0.000  | 0.375 | 0.250                        | 0.500     | 0.000 | 0.000  | 0.750 | 0.667 |
| Entering Leg     | 1              | 0     | 0         | 0      | 1     | 0                           | 1          | 0         | 0      | 1     | 0                 | 1     | 2     | 0      | 3     | 1                            | 2         | 0     | 0      | 3     | 8     |
| Exiting Leg      |                |       |           |        | 1     |                             |            |           |        | 2     |                   |       |       |        | 1     |                              |           |       |        | 4     | 8     |
| Total            |                |       |           |        | 2     |                             |            |           |        | 3     |                   |       |       |        | 4     |                              |           |       |        | 7     | 16    |

PDI File #: 218212 B

Location: N: Waltham Street NE: Watertown Street (Route 16)

Location: E: Washington Street W: Washington Street (Route 16)

City, State: West Newton, MA

Client: BETA/J. Centracchio

Site Code: 5472-14

Count Date: Tuesday, October 19, 2021

Start Time: 6:00 AM

End Time: 8:00 PM

Class:



157 Washington Street, Suite 2  
Hudson, MA 01749  
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

Table with columns for Street, Direction, and various movement types (Right, Left, Hard Left, U-Turn, CW-EB, CW-WB, Total). Rows represent time intervals from 6:00 AM to 5:15 PM. Includes a 'Total' column at the end of each row.

PDI File #: 218212 B

Location: N: Waltham Street NE: Watertown Street (Route 16)

Location: E: Washington Street W: Washington Street (Route 16)

City, State: West Newton, MA

Client: BETA/J. Centracchio

Site Code: 5472-14

Count Date: Tuesday, October 19, 2021

Start Time: 6:00 AM

End Time: 8:00 PM

Class:



157 Washington Street, Suite 2  
Hudson, MA 01749  
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

Table with columns for Waltham Street, Watertown Street (Route 16), Washington Street, and Washington Street (Route 16). Rows include time intervals (5:30 PM to 7:45 PM), Grand Total, Approach %, Total %, and Exiting Leg Total.

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

Table for AM Peak Hour Analysis with columns for Waltham Street, Watertown Street (Route 16), Washington Street, and Washington Street (Route 16). Rows include time intervals (8:00 AM to 8:45 AM), Total Volume, % Approach Total, PHF, and Exiting/Entering Leg.

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

Table for MidDay Peak Hour Analysis with columns for Waltham Street, Watertown Street (Route 16), Washington Street, and Washington Street (Route 16). Rows include time intervals (1:45 PM to 2:30 PM), Total Volume, % Approach Total, PHF, and Exiting/Entering Leg.

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

Table for PM Peak Hour Analysis with columns for Waltham Street, Watertown Street (Route 16), Washington Street, and Washington Street (Route 16). Rows include time intervals (5:45 PM to 6:15 PM), Total Volume, % Approach Total, PHF, and Exiting/Entering Leg.



PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Bicycles (on Roadway and Crosswalks)**

|                  | Waltham Street |       |           |        |       |       |       | Watertown Street (Route 16) |            |           |        |        |        |       | Washington Street |       |       |        |       |       |       | Washington Street (Route 16) |           |       |        |       |       |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-------|-------|-----------------------------|------------|-----------|--------|--------|--------|-------|-------------------|-------|-------|--------|-------|-------|-------|------------------------------|-----------|-------|--------|-------|-------|-------|-------|
|                  | from North     |       |           |        |       |       |       | from Northeast              |            |           |        |        |        |       | from East         |       |       |        |       |       |       | from West                    |           |       |        |       |       |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | CW-EB | CW-WB | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | CW-SEB | CW-NWB | Total | Hard Right        | Right | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru                         | Bear Left | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 6:30 PM          | 0              | 0     | 0         | 0      | 1     | 0     | 1     | 0                           | 0          | 0         | 0      | 0      | 1      | 1     | 0                 | 0     | 1     | 0      | 0     | 0     | 1     | 0                            | 0         | 0     | 0      | 1     | 0     | 1     | 4     |
| Total Volume     | 0              | 0     | 0         | 0      | 1     | 1     | 2     | 0                           | 1          | 1         | 0      | 2      | 2      | 6     | 0                 | 0     | 2     | 0      | 0     | 2     | 4     | 0                            | 1         | 1     | 0      | 2     | 0     | 4     | 16    |
| % Approach Total | 0.0            | 0.0   | 0.0       | 0.0    | 50.0  | 50.0  |       | 0.0                         | 16.7       | 16.7      | 0.0    | 33.3   | 33.3   |       | 0.0               | 0.0   | 50.0  | 0.0    | 0.0   | 50.0  |       | 0.0                          | 25.0      | 25.0  | 0.0    | 50.0  | 0.0   |       |       |
| PHF              | 0.000          | 0.000 | 0.000     | 0.000  | 0.250 | 0.250 | 0.500 | 0.000                       | 0.250      | 0.250     | 0.000  | 0.500  | 0.500  | 0.750 | 0.000             | 0.000 | 0.500 | 0.000  | 0.000 | 0.500 | 0.500 | 0.000                        | 0.250     | 0.250 | 0.000  | 0.500 | 0.000 | 0.500 | 0.800 |
| Entering Leg     | 0              | 0     | 0         | 0      | 1     | 1     | 2     | 0                           | 1          | 1         | 0      | 2      | 2      | 6     | 0                 | 0     | 2     | 0      | 0     | 2     | 4     | 0                            | 1         | 1     | 0      | 2     | 0     | 4     | 16    |
| Exiting Leg      |                |       |           |        |       |       | 3     |                             |            |           |        |        |        | 5     |                   |       |       |        |       |       | 3     |                              |           |       |        |       |       | 5     | 16    |
| Total            |                |       |           |        |       |       | 5     |                             |            |           |        |        |        | 11    |                   |       |       |        |       |       | 7     |                              |           |       |        |       |       | 9     | 32    |

PDI File #: 218212 B

Location: N: Waltham Street NE: Watertown Street (Route 16)

Location: E: Washington Street W: Washington Street (Route 16)

City, State: West Newton, MA

Client: BETA/J. Centracchio

Site Code: 5472-14

Count Date: Tuesday, October 19, 2021

Start Time: 6:00 AM

End Time: 8:00 PM

Class:



157 Washington Street, Suite 2  
Hudson, MA 01749  
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

Table with columns for Street (Waltham, Watertown, Washington), Direction (from North, Northeast, East, West), and various movement types (Right, Left, Hard Left, U-Turn, CW-EB, CW-WB, Total). Rows represent time intervals from 6:00 AM to 5:15 PM.

PDI File #: 218212 B

Location: N: Waltham Street NE: Watertown Street (Route 16)

Location: E: Washington Street W: Washington Street (Route 16)

City, State: West Newton, MA

Client: BETA/J. Centracchio

Site Code: 5472-14

Count Date: Tuesday, October 19, 2021

Start Time: 6:00 AM

End Time: 8:00 PM

Class:



157 Washington Street, Suite 2  
Hudson, MA 01749  
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

Table with columns for Street (Waltham, Watertown, Washington), Direction (from North, Northeast, East, West), and various movement types (Right, Left, Hard Left, U-Turn, CW-EB, CW-WB, Total). Rows include time intervals from 5:30 PM to 7:45 PM, Grand Total, Approach %, Total %, and Exiting Leg Total.

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

Table with columns for Street (Waltham, Watertown, Washington), Direction (from North, Northeast, East, West), and various movement types. Rows include time intervals (9:45 AM, 10:00 AM, 10:15 AM, 10:30 AM), Total Volume, % Approach Total, PHF, and Exiting Leg Total.

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

Table with columns for Street (Waltham, Watertown, Washington), Direction (from North, Northeast, East, West), and various movement types. Rows include time intervals (11:30 AM, 11:45 AM, 12:00 PM, 12:15 PM), Total Volume, % Approach Total, PHF, and Exiting Leg Total.

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

Table with columns for Street (Waltham, Watertown, Washington), Direction (from North, Northeast, East, West), and various movement types. Rows include time intervals (3:15 PM, 3:30 PM, 3:45 PM), Total Volume, % Approach Total, PHF, and Exiting Leg Total.

PDI File #: **218212 B**  
 Location: **N: Waltham Street NE: Watertown Street (Route 16)**  
 Location: **E: Washington Street W: Washington Street (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Pedestrians**

|                  | Waltham Street |       |           |        |       |       |       | Watertown Street (Route 16) |            |           |        |        |        |       | Washington Street |       |       |        |       |       |       | Washington Street (Route 16) |           |       |        |       |       |       | Total |
|------------------|----------------|-------|-----------|--------|-------|-------|-------|-----------------------------|------------|-----------|--------|--------|--------|-------|-------------------|-------|-------|--------|-------|-------|-------|------------------------------|-----------|-------|--------|-------|-------|-------|-------|
|                  | from North     |       |           |        |       |       |       | from Northeast              |            |           |        |        |        |       | from East         |       |       |        |       |       |       | from West                    |           |       |        |       |       |       |       |
|                  | Right          | Left  | Hard Left | U-Turn | CW-EB | CW-WB | Total | Hard Right                  | Bear Right | Hard Left | U-Turn | CW-SEB | CW-NWB | Total | Hard Right        | Right | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru                         | Bear Left | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 4:00 PM          | 0              | 0     | 0         | 0      | 0     | 5     | 5     | 0                           | 0          | 0         | 0      | 2      | 0      | 2     | 0                 | 0     | 0     | 0      | 1     | 0     | 1     | 0                            | 0         | 0     | 0      | 3     | 3     | 6     | 14    |
| Total Volume     | 0              | 0     | 0         | 0      | 17    | 21    | 38    | 0                           | 0          | 0         | 0      | 8      | 8      | 16    | 0                 | 0     | 0     | 0      | 4     | 3     | 7     | 0                            | 0         | 0     | 0      | 16    | 16    | 32    | 93    |
| % Approach Total | 0.0            | 0.0   | 0.0       | 0.0    | 44.7  | 55.3  |       | 0.0                         | 0.0        | 0.0       | 0.0    | 50.0   | 50.0   |       | 0.0               | 0.0   | 0.0   | 0.0    | 57.1  | 42.9  |       | 0.0                          | 0.0       | 0.0   | 0.0    | 50.0  | 50.0  |       |       |
| PHF              | 0.000          | 0.000 | 0.000     | 0.000  | 0.607 | 0.525 | 0.559 | 0.000                       | 0.000      | 0.000     | 0.000  | 0.500  | 0.400  | 0.444 | 0.000             | 0.000 | 0.000 | 0.000  | 0.500 | 0.250 | 0.350 | 0.000                        | 0.000     | 0.000 | 0.000  | 0.667 | 0.444 | 0.615 | 0.596 |
| Entering Leg     | 0              | 0     | 0         | 0      | 17    | 21    | 38    | 0                           | 0          | 0         | 0      | 8      | 8      | 16    | 0                 | 0     | 0     | 0      | 4     | 3     | 7     | 0                            | 0         | 0     | 0      | 16    | 16    | 32    | 93    |
| Exiting Leg      |                |       |           |        |       |       | 38    |                             |            |           |        |        |        | 16    |                   |       |       |        |       |       | 7     |                              |           |       |        |       |       | 32    | 93    |
| Total            |                |       |           |        |       |       | 76    |                             |            |           |        |        |        | 32    |                   |       |       |        |       |       | 14    |                              |           |       |        |       |       | 64    | 186   |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|          | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|          | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |
| 6:00 AM  | 32                           | 1    | 0      | 33    | 0               | 7    | 0      | 7     | 6                            | 44   | 0      | 50    | 90    |
| 6:15 AM  | 44                           | 4    | 0      | 48    | 1               | 4    | 0      | 5     | 11                           | 52   | 0      | 63    | 116   |
| 6:30 AM  | 66                           | 5    | 0      | 71    | 1               | 5    | 0      | 6     | 19                           | 76   | 0      | 95    | 172   |
| 6:45 AM  | 68                           | 6    | 0      | 74    | 1               | 5    | 0      | 6     | 34                           | 101  | 0      | 135   | 215   |
| Total    | 210                          | 16   | 0      | 226   | 3               | 21   | 0      | 24    | 70                           | 273  | 0      | 343   | 593   |
| 7:00 AM  | 60                           | 6    | 0      | 66    | 0               | 10   | 0      | 10    | 39                           | 87   | 0      | 126   | 202   |
| 7:15 AM  | 82                           | 22   | 0      | 104   | 2               | 17   | 0      | 19    | 52                           | 134  | 0      | 186   | 309   |
| 7:30 AM  | 86                           | 22   | 0      | 108   | 4               | 27   | 0      | 31    | 49                           | 173  | 0      | 222   | 361   |
| 7:45 AM  | 131                          | 28   | 0      | 159   | 7               | 25   | 0      | 32    | 59                           | 182  | 0      | 241   | 432   |
| Total    | 359                          | 78   | 0      | 437   | 13              | 79   | 0      | 92    | 199                          | 576  | 0      | 775   | 1304  |
| 8:00 AM  | 101                          | 28   | 0      | 129   | 4               | 32   | 0      | 36    | 51                           | 163  | 0      | 214   | 379   |
| 8:15 AM  | 79                           | 19   | 0      | 98    | 9               | 24   | 0      | 33    | 71                           | 180  | 0      | 251   | 382   |
| 8:30 AM  | 108                          | 24   | 0      | 132   | 7               | 39   | 0      | 46    | 61                           | 173  | 0      | 234   | 412   |
| 8:45 AM  | 98                           | 29   | 1      | 128   | 10              | 44   | 0      | 54    | 54                           | 166  | 0      | 220   | 402   |
| Total    | 386                          | 100  | 1      | 487   | 30              | 139  | 0      | 169   | 237                          | 682  | 0      | 919   | 1575  |
| 9:00 AM  | 77                           | 24   | 1      | 102   | 11              | 34   | 0      | 45    | 36                           | 129  | 0      | 165   | 312   |
| 9:15 AM  | 106                          | 9    | 0      | 115   | 5               | 15   | 0      | 20    | 32                           | 120  | 0      | 152   | 287   |
| 9:30 AM  | 89                           | 12   | 1      | 102   | 5               | 19   | 0      | 24    | 31                           | 122  | 0      | 153   | 279   |
| 9:45 AM  | 75                           | 16   | 0      | 91    | 2               | 16   | 0      | 18    | 34                           | 139  | 0      | 173   | 282   |
| Total    | 347                          | 61   | 2      | 410   | 23              | 84   | 0      | 107   | 133                          | 510  | 0      | 643   | 1160  |
| 10:00 AM | 91                           | 14   | 0      | 105   | 5               | 10   | 0      | 15    | 20                           | 121  | 0      | 141   | 261   |
| 10:15 AM | 98                           | 17   | 0      | 115   | 5               | 21   | 0      | 26    | 23                           | 95   | 0      | 118   | 259   |
| 10:30 AM | 87                           | 11   | 0      | 98    | 3               | 16   | 0      | 19    | 28                           | 88   | 0      | 116   | 233   |
| 10:45 AM | 94                           | 17   | 0      | 111   | 3               | 22   | 0      | 25    | 20                           | 113  | 0      | 133   | 269   |
| Total    | 370                          | 59   | 0      | 429   | 16              | 69   | 0      | 85    | 91                           | 417  | 0      | 508   | 1022  |
| 11:00 AM | 100                          | 16   | 0      | 116   | 2               | 13   | 0      | 15    | 23                           | 103  | 0      | 126   | 257   |
| 11:15 AM | 91                           | 7    | 0      | 98    | 6               | 12   | 0      | 18    | 18                           | 110  | 0      | 128   | 244   |
| 11:30 AM | 86                           | 19   | 0      | 105   | 6               | 19   | 0      | 25    | 13                           | 104  | 0      | 117   | 247   |
| 11:45 AM | 93                           | 22   | 0      | 115   | 11              | 16   | 0      | 27    | 32                           | 92   | 0      | 124   | 266   |
| Total    | 370                          | 64   | 0      | 434   | 25              | 60   | 0      | 85    | 86                           | 409  | 0      | 495   | 1014  |
| 12:00 PM | 100                          | 16   | 0      | 116   | 13              | 34   | 0      | 47    | 35                           | 111  | 0      | 146   | 309   |
| 12:15 PM | 120                          | 14   | 0      | 134   | 4               | 24   | 0      | 28    | 26                           | 109  | 0      | 135   | 297   |
| 12:30 PM | 114                          | 27   | 0      | 141   | 6               | 22   | 0      | 28    | 24                           | 95   | 0      | 119   | 288   |
| 12:45 PM | 86                           | 20   | 0      | 106   | 7               | 26   | 0      | 33    | 24                           | 122  | 0      | 146   | 285   |
| Total    | 420                          | 77   | 0      | 497   | 30              | 106  | 0      | 136   | 109                          | 437  | 0      | 546   | 1179  |
| 1:00 PM  | 100                          | 16   | 1      | 117   | 7               | 18   | 0      | 25    | 38                           | 107  | 0      | 145   | 287   |
| 1:15 PM  | 104                          | 26   | 1      | 131   | 5               | 26   | 0      | 31    | 23                           | 111  | 0      | 134   | 296   |
| 1:30 PM  | 115                          | 20   | 0      | 135   | 5               | 17   | 0      | 22    | 23                           | 102  | 0      | 125   | 282   |
| 1:45 PM  | 109                          | 12   | 0      | 121   | 8               | 25   | 0      | 33    | 32                           | 107  | 0      | 139   | 293   |
| Total    | 428                          | 74   | 2      | 504   | 25              | 86   | 0      | 111   | 116                          | 427  | 0      | 543   | 1158  |
| 2:00 PM  | 119                          | 11   | 0      | 130   | 3               | 20   | 0      | 23    | 24                           | 113  | 0      | 137   | 290   |
| 2:15 PM  | 119                          | 23   | 1      | 143   | 7               | 30   | 0      | 37    | 28                           | 133  | 0      | 161   | 341   |
| 2:30 PM  | 118                          | 31   | 0      | 149   | 10              | 43   | 0      | 53    | 42                           | 116  | 0      | 158   | 360   |
| 2:45 PM  | 137                          | 19   | 0      | 156   | 3               | 51   | 0      | 54    | 29                           | 101  | 0      | 130   | 340   |
| Total    | 493                          | 84   | 1      | 578   | 23              | 144  | 0      | 167   | 123                          | 463  | 0      | 586   | 1331  |
| 3:00 PM  | 104                          | 16   | 0      | 120   | 10              | 48   | 0      | 58    | 42                           | 112  | 0      | 154   | 332   |
| 3:15 PM  | 118                          | 23   | 0      | 141   | 6               | 35   | 0      | 41    | 34                           | 115  | 0      | 149   | 331   |
| 3:30 PM  | 92                           | 26   | 0      | 118   | 14              | 57   | 0      | 71    | 44                           | 144  | 0      | 188   | 377   |
| 3:45 PM  | 134                          | 24   | 0      | 158   | 6               | 43   | 0      | 49    | 31                           | 114  | 0      | 145   | 352   |
| Total    | 448                          | 89   | 0      | 537   | 36              | 183  | 0      | 219   | 151                          | 485  | 0      | 636   | 1392  |
| 4:00 PM  | 110                          | 16   | 0      | 126   | 8               | 37   | 0      | 45    | 34                           | 135  | 0      | 169   | 340   |
| 4:15 PM  | 147                          | 21   | 0      | 168   | 3               | 40   | 0      | 43    | 41                           | 138  | 0      | 179   | 390   |
| 4:30 PM  | 101                          | 14   | 0      | 115   | 3               | 48   | 0      | 51    | 43                           | 135  | 0      | 178   | 344   |
| 4:45 PM  | 109                          | 23   | 0      | 132   | 7               | 57   | 0      | 64    | 35                           | 154  | 0      | 189   | 385   |
| Total    | 467                          | 74   | 0      | 541   | 21              | 182  | 0      | 203   | 153                          | 562  | 0      | 715   | 1459  |
| 5:00 PM  | 108                          | 19   | 0      | 127   | 9               | 60   | 0      | 69    | 38                           | 122  | 0      | 160   | 356   |
| 5:15 PM  | 140                          | 28   | 0      | 168   | 8               | 48   | 0      | 56    | 53                           | 151  | 0      | 204   | 428   |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Washington Street (Route 16) |           |          |            | Highland Street |            |          |            | Washington Street (Route 16) |            |          |            | Total       |
|-------------------|------------------------------|-----------|----------|------------|-----------------|------------|----------|------------|------------------------------|------------|----------|------------|-------------|
|                   | from East                    |           |          |            | from South      |            |          |            | from West                    |            |          |            |             |
|                   | Thru                         | Left      | U-Turn   | Total      | Right           | Left       | U-Turn   | Total      | Right                        | Thru       | U-Turn   | Total      |             |
| 5:30 PM           | 127                          | 21        | 0        | 148        | 7               | 67         | 0        | 74         | 59                           | 170        | 0        | 229        | 451         |
| 5:45 PM           | 147                          | 26        | 0        | 173        | 13              | 41         | 0        | 54         | 35                           | 172        | 0        | 207        | 434         |
| <b>Total</b>      | <b>522</b>                   | <b>94</b> | <b>0</b> | <b>616</b> | <b>37</b>       | <b>216</b> | <b>0</b> | <b>253</b> | <b>185</b>                   | <b>615</b> | <b>0</b> | <b>800</b> | <b>1669</b> |
| 6:00 PM           | 125                          | 22        | 1        | 148        | 8               | 56         | 0        | 64         | 29                           | 163        | 0        | 192        | 404         |
| 6:15 PM           | 136                          | 20        | 0        | 156        | 7               | 42         | 0        | 49         | 29                           | 152        | 0        | 181        | 386         |
| 6:30 PM           | 129                          | 18        | 0        | 147        | 6               | 58         | 1        | 65         | 45                           | 143        | 0        | 188        | 400         |
| 6:45 PM           | 116                          | 11        | 0        | 127        | 5               | 28         | 0        | 33         | 18                           | 116        | 0        | 134        | 294         |
| <b>Total</b>      | <b>506</b>                   | <b>71</b> | <b>1</b> | <b>578</b> | <b>26</b>       | <b>184</b> | <b>1</b> | <b>211</b> | <b>121</b>                   | <b>574</b> | <b>0</b> | <b>695</b> | <b>1484</b> |
| 7:00 PM           | 102                          | 18        | 0        | 120        | 10              | 25         | 0        | 35         | 15                           | 87         | 0        | 102        | 257         |
| 7:15 PM           | 85                           | 12        | 0        | 97         | 4               | 13         | 0        | 17         | 15                           | 105        | 0        | 120        | 234         |
| 7:30 PM           | 77                           | 14        | 1        | 92         | 6               | 14         | 0        | 20         | 15                           | 76         | 0        | 91         | 203         |
| 7:45 PM           | 65                           | 14        | 1        | 80         | 6               | 12         | 0        | 18         | 12                           | 48         | 0        | 60         | 158         |
| <b>Total</b>      | <b>329</b>                   | <b>58</b> | <b>2</b> | <b>389</b> | <b>26</b>       | <b>64</b>  | <b>0</b> | <b>90</b>  | <b>57</b>                    | <b>316</b> | <b>0</b> | <b>373</b> | <b>852</b>  |
| Grand Total       | 5655                         | 999       | 9        | 6663       | 334             | 1617       | 1        | 1952       | 1831                         | 6746       | 0        | 8577       | 17192       |
| Approach %        | 84.9                         | 15.0      | 0.1      |            | 17.1            | 82.8       | 0.1      |            | 21.3                         | 78.7       | 0.0      |            |             |
| Total %           | 32.9                         | 5.8       | 0.1      | 38.8       | 1.9             | 9.4        | 0.0      | 11.4       | 10.7                         | 39.2       | 0.0      | 49.9       |             |
| Exiting Leg Total |                              |           |          | 7089       |                 |            |          | 2831       |                              |            |          | 7272       | 17192       |
| Cars              | 5394                         | 965       | 9        | 6368       | 325             | 1571       | 1        | 1897       | 1785                         | 6461       | 0        | 8246       | 16511       |
| % Cars            | 95.4                         | 96.6      | 100.0    | 95.6       | 97.3            | 97.2       | 100.0    | 97.2       | 97.5                         | 95.8       | 0.0      | 96.1       | 96.0        |
| Exiting Leg Total |                              |           |          | 6795       |                 |            |          | 2751       |                              |            |          | 6965       | 16511       |
| Heavy Vehicles    | 261                          | 34        | 0        | 295        | 9               | 46         | 0        | 55         | 46                           | 285        | 0        | 331        | 681         |
| % Heavy Vehicles  | 4.6                          | 3.4       | 0.0      | 4.4        | 2.7             | 2.8        | 0.0      | 2.8        | 2.5                          | 4.2        | 0.0      | 3.9        | 4.0         |
| Exiting Leg Total |                              |           |          | 294        |                 |            |          | 80         |                              |            |          | 307        | 681         |

**AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:**

|                    | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                    | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 7:45 AM            | 131                          | 28    | 0      | 159   | 7               | 25    | 0      | 32    | 59                           | 182   | 0      | 241   | 432   |
| 8:00 AM            | 101                          | 28    | 0      | 129   | 4               | 32    | 0      | 36    | 51                           | 163   | 0      | 214   | 379   |
| 8:15 AM            | 79                           | 19    | 0      | 98    | 9               | 24    | 0      | 33    | 71                           | 180   | 0      | 251   | 382   |
| 8:30 AM            | 108                          | 24    | 0      | 132   | 7               | 39    | 0      | 46    | 61                           | 173   | 0      | 234   | 412   |
| Total Volume       | 419                          | 99    | 0      | 518   | 27              | 120   | 0      | 147   | 242                          | 698   | 0      | 940   | 1605  |
| % Approach Total   | 80.9                         | 19.1  | 0.0    |       | 18.4            | 81.6  | 0.0    |       | 25.7                         | 74.3  | 0.0    |       |       |
| PHF                | 0.800                        | 0.884 | 0.000  | 0.814 | 0.750           | 0.769 | 0.000  | 0.799 | 0.852                        | 0.959 | 0.000  | 0.936 | 0.929 |
| Cars               | 399                          | 97    | 0      | 496   | 26              | 119   | 0      | 145   | 228                          | 667   | 0      | 895   | 1536  |
| Cars %             | 95.2                         | 98.0  | 0.0    | 95.8  | 96.3            | 99.2  | 0.0    | 98.6  | 94.2                         | 95.6  | 0.0    | 95.2  | 95.7  |
| Heavy Vehicles     | 20                           | 2     | 0      | 22    | 1               | 1     | 0      | 2     | 14                           | 31    | 0      | 45    | 69    |
| Heavy Vehicles %   | 4.8                          | 2.0   | 0.0    | 4.2   | 3.7             | 0.8   | 0.0    | 1.4   | 5.8                          | 4.4   | 0.0    | 4.8   | 4.3   |
| Cars Enter Leg     | 399                          | 97    | 0      | 496   | 26              | 119   | 0      | 145   | 228                          | 667   | 0      | 895   | 1536  |
| Heavy Enter Leg    | 20                           | 2     | 0      | 22    | 1               | 1     | 0      | 2     | 14                           | 31    | 0      | 45    | 69    |
| Total Entering Leg | 419                          | 99    | 0      | 518   | 27              | 120   | 0      | 147   | 242                          | 698   | 0      | 940   | 1605  |
| Cars Exiting Leg   |                              |       |        | 693   |                 |       |        | 325   |                              |       |        | 518   | 1536  |
| Heavy Exiting Leg  |                              |       |        | 32    |                 |       |        | 16    |                              |       |        | 21    | 69    |
| Total Exiting Leg  |                              |       |        | 725   |                 |       |        | 341   |                              |       |        | 539   | 1605  |

**MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:**

|                  | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                  | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 1:45 PM          | 109                          | 12    | 0      | 121   | 8               | 25    | 0      | 33    | 32                           | 107   | 0      | 139   | 293   |
| 2:00 PM          | 119                          | 11    | 0      | 130   | 3               | 20    | 0      | 23    | 24                           | 113   | 0      | 137   | 290   |
| 2:15 PM          | 119                          | 23    | 1      | 143   | 7               | 30    | 0      | 37    | 28                           | 133   | 0      | 161   | 341   |
| 2:30 PM          | 118                          | 31    | 0      | 149   | 10              | 43    | 0      | 53    | 42                           | 116   | 0      | 158   | 360   |
| Total Volume     | 465                          | 77    | 1      | 543   | 28              | 118   | 0      | 146   | 126                          | 469   | 0      | 595   | 1284  |
| % Approach Total | 85.6                         | 14.2  | 0.2    |       | 19.2            | 80.8  | 0.0    |       | 21.2                         | 78.8  | 0.0    |       |       |
| PHF              | 0.977                        | 0.621 | 0.250  | 0.911 | 0.700           | 0.686 | 0.000  | 0.689 | 0.750                        | 0.882 | 0.000  | 0.924 | 0.892 |
| Cars             | 449                          | 76    | 1      | 526   | 27              | 113   | 0      | 140   | 122                          | 449   | 0      | 571   | 1237  |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Cars and Heavy Vehicles (Combined)**

|                    | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|--------------------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|                    | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|                    | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |
| Cars %             | 96.6                         | 98.7 | 100.0  | 96.9  | 96.4            | 95.8 | 0.0    | 95.9  | 96.8                         | 95.7 | 0.0    | 96.0  | 96.3  |
| Heavy Vehicles     | 16                           | 1    | 0      | 17    | 1               | 5    | 0      | 6     | 4                            | 20   | 0      | 24    | 47    |
| Heavy Vehicles %   | 3.4                          | 1.3  | 0.0    | 3.1   | 3.6             | 4.2  | 0.0    | 4.1   | 3.2                          | 4.3  | 0.0    | 4.0   | 3.7   |
| Cars Enter Leg     | 449                          | 76   | 1      | 526   | 27              | 113  | 0      | 140   | 122                          | 449  | 0      | 571   | 1237  |
| Heavy Enter Leg    | 16                           | 1    | 0      | 17    | 1               | 5    | 0      | 6     | 4                            | 20   | 0      | 24    | 47    |
| Total Entering Leg | 465                          | 77   | 1      | 543   | 28              | 118  | 0      | 146   | 126                          | 469  | 0      | 595   | 1284  |
| Cars Exiting Leg   |                              |      |        | 477   |                 |      |        | 198   |                              |      |        | 562   | 1237  |
| Heavy Exiting Leg  |                              |      |        | 21    |                 |      |        | 5     |                              |      |        | 21    | 47    |
| Total Exiting Leg  |                              |      |        | 498   |                 |      |        | 203   |                              |      |        | 583   | 1284  |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 5:15 PM            | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                    | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 5:15 PM            | 140                          | 28    | 0      | 168   | 8               | 48    | 0      | 56    | 53                           | 151   | 0      | 204   | 428   |
| 5:30 PM            | 127                          | 21    | 0      | 148   | 7               | 67    | 0      | 74    | 59                           | 170   | 0      | 229   | 451   |
| 5:45 PM            | 147                          | 26    | 0      | 173   | 13              | 41    | 0      | 54    | 35                           | 172   | 0      | 207   | 434   |
| 6:00 PM            | 125                          | 22    | 1      | 148   | 8               | 56    | 0      | 64    | 29                           | 163   | 0      | 192   | 404   |
| Total Volume       | 539                          | 97    | 1      | 637   | 36              | 212   | 0      | 248   | 176                          | 656   | 0      | 832   | 1717  |
| % Approach Total   | 84.6                         | 15.2  | 0.2    |       | 14.5            | 85.5  | 0.0    |       | 21.2                         | 78.8  | 0.0    |       |       |
| PHF                | 0.917                        | 0.866 | 0.250  | 0.921 | 0.692           | 0.791 | 0.000  | 0.838 | 0.746                        | 0.953 | 0.000  | 0.908 | 0.952 |
| Cars               | 522                          | 96    | 1      | 619   | 36              | 210   | 0      | 246   | 176                          | 643   | 0      | 819   | 1684  |
| Cars %             | 96.8                         | 99.0  | 100.0  | 97.2  | 100.0           | 99.1  | 0.0    | 99.2  | 100.0                        | 98.0  | 0.0    | 98.4  | 98.1  |
| Heavy Vehicles     | 17                           | 1     | 0      | 18    | 0               | 2     | 0      | 2     | 0                            | 13    | 0      | 13    | 33    |
| Heavy Vehicles %   | 3.2                          | 1.0   | 0.0    | 2.8   | 0.0             | 0.9   | 0.0    | 0.8   | 0.0                          | 2.0   | 0.0    | 1.6   | 1.9   |
| Cars Enter Leg     | 522                          | 96    | 1      | 619   | 36              | 210   | 0      | 246   | 176                          | 643   | 0      | 819   | 1684  |
| Heavy Enter Leg    | 17                           | 1     | 0      | 18    | 0               | 2     | 0      | 2     | 0                            | 13    | 0      | 13    | 33    |
| Total Entering Leg | 539                          | 97    | 1      | 637   | 36              | 212   | 0      | 248   | 176                          | 656   | 0      | 832   | 1717  |
| Cars Exiting Leg   |                              |       |        | 680   |                 |       |        | 272   |                              |       |        | 732   | 1684  |
| Heavy Exiting Leg  |                              |       |        | 13    |                 |       |        | 1     |                              |       |        | 19    | 33    |
| Total Exiting Leg  |                              |       |        | 693   |                 |       |        | 273   |                              |       |        | 751   | 1717  |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars**

|          | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|          | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |
| 6:00 AM  | 30                           | 0    | 0      | 30    | 0               | 7    | 0      | 7     | 6                            | 43   | 0      | 49    | 86    |
| 6:15 AM  | 40                           | 4    | 0      | 44    | 1               | 4    | 0      | 5     | 11                           | 49   | 0      | 60    | 109   |
| 6:30 AM  | 60                           | 4    | 0      | 64    | 1               | 5    | 0      | 6     | 19                           | 69   | 0      | 88    | 158   |
| 6:45 AM  | 64                           | 5    | 0      | 69    | 1               | 5    | 0      | 6     | 33                           | 93   | 0      | 126   | 201   |
| Total    | 194                          | 13   | 0      | 207   | 3               | 21   | 0      | 24    | 69                           | 254  | 0      | 323   | 554   |
| 7:00 AM  | 58                           | 4    | 0      | 62    | 0               | 10   | 0      | 10    | 34                           | 80   | 0      | 114   | 186   |
| 7:15 AM  | 77                           | 17   | 0      | 94    | 1               | 17   | 0      | 18    | 49                           | 125  | 0      | 174   | 286   |
| 7:30 AM  | 79                           | 20   | 0      | 99    | 4               | 27   | 0      | 31    | 46                           | 160  | 0      | 206   | 336   |
| 7:45 AM  | 130                          | 26   | 0      | 156   | 7               | 24   | 0      | 31    | 55                           | 176  | 0      | 231   | 418   |
| Total    | 344                          | 67   | 0      | 411   | 12              | 78   | 0      | 90    | 184                          | 541  | 0      | 725   | 1226  |
| 8:00 AM  | 95                           | 28   | 0      | 123   | 4               | 32   | 0      | 36    | 44                           | 151  | 0      | 195   | 354   |
| 8:15 AM  | 76                           | 19   | 0      | 95    | 9               | 24   | 0      | 33    | 69                           | 174  | 0      | 243   | 371   |
| 8:30 AM  | 98                           | 24   | 0      | 122   | 6               | 39   | 0      | 45    | 60                           | 166  | 0      | 226   | 393   |
| 8:45 AM  | 93                           | 29   | 1      | 123   | 10              | 44   | 0      | 54    | 54                           | 161  | 0      | 215   | 392   |
| Total    | 362                          | 100  | 1      | 463   | 29              | 139  | 0      | 168   | 227                          | 652  | 0      | 879   | 1510  |
| 9:00 AM  | 74                           | 23   | 1      | 98    | 11              | 34   | 0      | 45    | 35                           | 122  | 0      | 157   | 300   |
| 9:15 AM  | 102                          | 7    | 0      | 109   | 4               | 14   | 0      | 18    | 31                           | 113  | 0      | 144   | 271   |
| 9:30 AM  | 84                           | 11   | 1      | 96    | 5               | 19   | 0      | 24    | 30                           | 114  | 0      | 144   | 264   |
| 9:45 AM  | 64                           | 16   | 0      | 80    | 2               | 15   | 0      | 17    | 33                           | 128  | 0      | 161   | 258   |
| Total    | 324                          | 57   | 2      | 383   | 22              | 82   | 0      | 104   | 129                          | 477  | 0      | 606   | 1093  |
| 10:00 AM | 81                           | 14   | 0      | 95    | 5               | 9    | 0      | 14    | 19                           | 117  | 0      | 136   | 245   |
| 10:15 AM | 94                           | 16   | 0      | 110   | 5               | 20   | 0      | 25    | 23                           | 90   | 0      | 113   | 248   |
| 10:30 AM | 78                           | 11   | 0      | 89    | 3               | 16   | 0      | 19    | 27                           | 86   | 0      | 113   | 221   |
| 10:45 AM | 85                           | 16   | 0      | 101   | 3               | 20   | 0      | 23    | 20                           | 103  | 0      | 123   | 247   |
| Total    | 338                          | 57   | 0      | 395   | 16              | 65   | 0      | 81    | 89                           | 396  | 0      | 485   | 961   |
| 11:00 AM | 93                           | 15   | 0      | 108   | 2               | 13   | 0      | 15    | 23                           | 95   | 0      | 118   | 241   |
| 11:15 AM | 85                           | 7    | 0      | 92    | 6               | 12   | 0      | 18    | 18                           | 104  | 0      | 122   | 232   |
| 11:30 AM | 76                           | 19   | 0      | 95    | 6               | 19   | 0      | 25    | 11                           | 102  | 0      | 113   | 233   |
| 11:45 AM | 90                           | 22   | 0      | 112   | 11              | 15   | 0      | 26    | 30                           | 92   | 0      | 122   | 260   |
| Total    | 344                          | 63   | 0      | 407   | 25              | 59   | 0      | 84    | 82                           | 393  | 0      | 475   | 966   |
| 12:00 PM | 94                           | 14   | 0      | 108   | 12              | 32   | 0      | 44    | 34                           | 101  | 0      | 135   | 287   |
| 12:15 PM | 112                          | 14   | 0      | 126   | 4               | 24   | 0      | 28    | 26                           | 106  | 0      | 132   | 286   |
| 12:30 PM | 105                          | 26   | 0      | 131   | 6               | 22   | 0      | 28    | 23                           | 91   | 0      | 114   | 273   |
| 12:45 PM | 82                           | 20   | 0      | 102   | 7               | 26   | 0      | 33    | 23                           | 111  | 0      | 134   | 269   |
| Total    | 393                          | 74   | 0      | 467   | 29              | 104  | 0      | 133   | 106                          | 409  | 0      | 515   | 1115  |
| 1:00 PM  | 93                           | 16   | 1      | 110   | 7               | 17   | 0      | 24    | 38                           | 102  | 0      | 140   | 274   |
| 1:15 PM  | 95                           | 25   | 1      | 121   | 4               | 26   | 0      | 30    | 22                           | 107  | 0      | 129   | 280   |
| 1:30 PM  | 112                          | 20   | 0      | 132   | 5               | 16   | 0      | 21    | 23                           | 97   | 0      | 120   | 273   |
| 1:45 PM  | 108                          | 12   | 0      | 120   | 8               | 24   | 0      | 32    | 32                           | 102  | 0      | 134   | 286   |
| Total    | 408                          | 73   | 2      | 483   | 24              | 83   | 0      | 107   | 115                          | 408  | 0      | 523   | 1113  |
| 2:00 PM  | 113                          | 11   | 0      | 124   | 3               | 19   | 0      | 22    | 23                           | 112  | 0      | 135   | 281   |
| 2:15 PM  | 116                          | 23   | 1      | 140   | 7               | 29   | 0      | 36    | 28                           | 124  | 0      | 152   | 328   |
| 2:30 PM  | 112                          | 30   | 0      | 142   | 9               | 41   | 0      | 50    | 39                           | 111  | 0      | 150   | 342   |
| 2:45 PM  | 130                          | 19   | 0      | 149   | 3               | 49   | 0      | 52    | 29                           | 98   | 0      | 127   | 328   |
| Total    | 471                          | 83   | 1      | 555   | 22              | 138  | 0      | 160   | 119                          | 445  | 0      | 564   | 1279  |
| 3:00 PM  | 102                          | 15   | 0      | 117   | 9               | 48   | 0      | 57    | 41                           | 108  | 0      | 149   | 323   |
| 3:15 PM  | 114                          | 22   | 0      | 136   | 6               | 35   | 0      | 41    | 34                           | 113  | 0      | 147   | 324   |
| 3:30 PM  | 87                           | 26   | 0      | 113   | 14              | 55   | 0      | 69    | 44                           | 141  | 0      | 185   | 367   |
| 3:45 PM  | 131                          | 23   | 0      | 154   | 6               | 42   | 0      | 48    | 31                           | 109  | 0      | 140   | 342   |
| Total    | 434                          | 86   | 0      | 520   | 35              | 180  | 0      | 215   | 150                          | 471  | 0      | 621   | 1356  |
| 4:00 PM  | 109                          | 16   | 0      | 125   | 7               | 36   | 0      | 43    | 34                           | 128  | 0      | 162   | 330   |
| 4:15 PM  | 143                          | 20   | 0      | 163   | 3               | 35   | 0      | 38    | 41                           | 135  | 0      | 176   | 377   |
| 4:30 PM  | 98                           | 13   | 0      | 111   | 3               | 45   | 0      | 48    | 43                           | 131  | 0      | 174   | 333   |
| 4:45 PM  | 106                          | 23   | 0      | 129   | 7               | 49   | 0      | 56    | 35                           | 148  | 0      | 183   | 368   |
| Total    | 456                          | 72   | 0      | 528   | 20              | 165  | 0      | 185   | 153                          | 542  | 0      | 695   | 1408  |
| 5:00 PM  | 106                          | 19   | 0      | 125   | 9               | 57   | 0      | 66    | 38                           | 119  | 0      | 157   | 348   |
| 5:15 PM  | 138                          | 27   | 0      | 165   | 8               | 48   | 0      | 56    | 53                           | 146  | 0      | 199   | 420   |



PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class: **Cars**



|                    | Washington Street (Route 16) |            |          |             | Highland Street |             |          |             | Washington Street (Route 16) |             |          |             | Total        |
|--------------------|------------------------------|------------|----------|-------------|-----------------|-------------|----------|-------------|------------------------------|-------------|----------|-------------|--------------|
|                    | from East                    |            |          |             | from South      |             |          |             | from West                    |             |          |             |              |
|                    | Thru                         | Left       | U-Turn   | Total       | Right           | Left        | U-Turn   | Total       | Right                        | Thru        | U-Turn   | Total       |              |
| 5:30 PM            | 124                          | 21         | 0        | 145         | 7               | 66          | 0        | 73          | 59                           | 168         | 0        | 227         | 445          |
| 5:45 PM            | 139                          | 26         | 0        | 165         | 13              | 40          | 0        | 53          | 35                           | 170         | 0        | 205         | 423          |
| <b>Total</b>       | <b>507</b>                   | <b>93</b>  | <b>0</b> | <b>600</b>  | <b>37</b>       | <b>211</b>  | <b>0</b> | <b>248</b>  | <b>185</b>                   | <b>603</b>  | <b>0</b> | <b>788</b>  | <b>1636</b>  |
| 6:00 PM            | 121                          | 22         | 1        | 144         | 8               | 56          | 0        | 64          | 29                           | 159         | 0        | 188         | 396          |
| 6:15 PM            | 133                          | 19         | 0        | 152         | 7               | 42          | 0        | 49          | 28                           | 147         | 0        | 175         | 376          |
| 6:30 PM            | 127                          | 18         | 0        | 145         | 6               | 57          | 1        | 64          | 45                           | 138         | 0        | 183         | 392          |
| 6:45 PM            | 115                          | 10         | 0        | 125         | 4               | 27          | 0        | 31          | 18                           | 115         | 0        | 133         | 289          |
| <b>Total</b>       | <b>496</b>                   | <b>69</b>  | <b>1</b> | <b>566</b>  | <b>25</b>       | <b>182</b>  | <b>1</b> | <b>208</b>  | <b>120</b>                   | <b>559</b>  | <b>0</b> | <b>679</b>  | <b>1453</b>  |
| 7:00 PM            | 100                          | 18         | 0        | 118         | 10              | 25          | 0        | 35          | 15                           | 86          | 0        | 101         | 254          |
| 7:15 PM            | 84                           | 12         | 0        | 96          | 4               | 13          | 0        | 17          | 15                           | 103         | 0        | 118         | 231          |
| 7:30 PM            | 76                           | 14         | 1        | 91          | 6               | 14          | 0        | 20          | 15                           | 75          | 0        | 90          | 201          |
| 7:45 PM            | 63                           | 14         | 1        | 78          | 6               | 12          | 0        | 18          | 12                           | 47          | 0        | 59          | 155          |
| <b>Total</b>       | <b>323</b>                   | <b>58</b>  | <b>2</b> | <b>383</b>  | <b>26</b>       | <b>64</b>   | <b>0</b> | <b>90</b>   | <b>57</b>                    | <b>311</b>  | <b>0</b> | <b>368</b>  | <b>841</b>   |
| <b>Grand Total</b> | <b>5394</b>                  | <b>965</b> | <b>9</b> | <b>6368</b> | <b>325</b>      | <b>1571</b> | <b>1</b> | <b>1897</b> | <b>1785</b>                  | <b>6461</b> | <b>0</b> | <b>8246</b> | <b>16511</b> |
| Approach %         | 84.7                         | 15.2       | 0.1      |             | 17.1            | 82.8        | 0.1      |             | 21.6                         | 78.4        | 0.0      |             |              |
| Total %            | 32.7                         | 5.8        | 0.1      | 38.6        | 2.0             | 9.5         | 0.0      | 11.5        | 10.8                         | 39.1        | 0.0      | 49.9        |              |
| Exiting Leg Total  | 6795                         |            |          |             | 2751            |             |          |             | 6965                         |             |          |             | 16511        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

| 7:45 AM          | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                  | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 7:45 AM          | 130                          | 26    | 0      | 156   | 7               | 24    | 0      | 31    | 55                           | 176   | 0      | 231   | 418   |
| 8:00 AM          | 95                           | 28    | 0      | 123   | 4               | 32    | 0      | 36    | 44                           | 151   | 0      | 195   | 354   |
| 8:15 AM          | 76                           | 19    | 0      | 95    | 9               | 24    | 0      | 33    | 69                           | 174   | 0      | 243   | 371   |
| 8:30 AM          | 98                           | 24    | 0      | 122   | 6               | 39    | 0      | 45    | 60                           | 166   | 0      | 226   | 393   |
| Total Volume     | 399                          | 97    | 0      | 496   | 26              | 119   | 0      | 145   | 228                          | 667   | 0      | 895   | 1536  |
| % Approach Total | 80.4                         | 19.6  | 0.0    |       | 17.9            | 82.1  | 0.0    |       | 25.5                         | 74.5  | 0.0    |       |       |
| PHF              | 0.767                        | 0.866 | 0.000  | 0.795 | 0.722           | 0.763 | 0.000  | 0.806 | 0.826                        | 0.947 | 0.000  | 0.921 | 0.919 |
| Entering Leg     | 399                          | 97    | 0      | 496   | 26              | 119   | 0      | 145   | 228                          | 667   | 0      | 895   | 1536  |
| Exiting Leg      | 693                          |       |        |       | 325             |       |        |       | 518                          |       |        |       | 1536  |
| Total            | 1189                         |       |        |       | 470             |       |        |       | 1413                         |       |        |       | 3072  |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

| 1:45 PM          | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                  | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 1:45 PM          | 108                          | 12    | 0      | 120   | 8               | 24    | 0      | 32    | 32                           | 102   | 0      | 134   | 286   |
| 2:00 PM          | 113                          | 11    | 0      | 124   | 3               | 19    | 0      | 22    | 23                           | 112   | 0      | 135   | 281   |
| 2:15 PM          | 116                          | 23    | 1      | 140   | 7               | 29    | 0      | 36    | 28                           | 124   | 0      | 152   | 328   |
| 2:30 PM          | 112                          | 30    | 0      | 142   | 9               | 41    | 0      | 50    | 39                           | 111   | 0      | 150   | 342   |
| Total Volume     | 449                          | 76    | 1      | 526   | 27              | 113   | 0      | 140   | 122                          | 449   | 0      | 571   | 1237  |
| % Approach Total | 85.4                         | 14.4  | 0.2    |       | 19.3            | 80.7  | 0.0    |       | 21.4                         | 78.6  | 0.0    |       |       |
| PHF              | 0.968                        | 0.633 | 0.250  | 0.926 | 0.750           | 0.689 | 0.000  | 0.700 | 0.782                        | 0.905 | 0.000  | 0.939 | 0.904 |
| Entering Leg     | 449                          | 76    | 1      | 526   | 27              | 113   | 0      | 140   | 122                          | 449   | 0      | 571   | 1237  |
| Exiting Leg      | 477                          |       |        |       | 198             |       |        |       | 562                          |       |        |       | 1237  |
| Total            | 1003                         |       |        |       | 338             |       |        |       | 1133                         |       |        |       | 2474  |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 5:15 PM | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|---------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|         | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|         | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |
| 5:15 PM | 138                          | 27   | 0      | 165   | 8               | 48   | 0      | 56    | 53                           | 146  | 0      | 199   | 420   |
| 5:30 PM | 124                          | 21   | 0      | 145   | 7               | 66   | 0      | 73    | 59                           | 168  | 0      | 227   | 445   |
| 5:45 PM | 139                          | 26   | 0      | 165   | 13              | 40   | 0      | 53    | 35                           | 170  | 0      | 205   | 423   |
| 6:00 PM | 121                          | 22   | 1      | 144   | 8               | 56   | 0      | 64    | 29                           | 159  | 0      | 188   | 396   |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

**Cars**

|                  | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                  | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| Total Volume     | 522                          | 96    | 1      | 619   | 36              | 210   | 0      | 246   | 176                          | 643   | 0      | 819   | 1684  |
| % Approach Total | 84.3                         | 15.5  | 0.2    |       | 14.6            | 85.4  | 0.0    |       | 21.5                         | 78.5  | 0.0    |       |       |
| PHF              | 0.939                        | 0.889 | 0.250  | 0.938 | 0.692           | 0.795 | 0.000  | 0.842 | 0.746                        | 0.946 | 0.000  | 0.902 | 0.946 |
| Entering Leg     | 522                          | 96    | 1      | 619   | 36              | 210   | 0      | 246   | 176                          | 643   | 0      | 819   | 1684  |
| Exiting Leg      |                              |       |        | 680   |                 |       |        | 272   |                              |       |        | 732   | 1684  |
| Total            |                              |       |        | 1299  |                 |       |        | 518   |                              |       |        | 1551  | 3368  |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|          | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |    |
|----------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|----|
|          | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |    |
|          | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |    |
| 6:00 AM  | 2                            | 1    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 0    | 1      | 0     | 1     | 4  |
| 6:15 AM  | 4                            | 0    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 0    | 3      | 0     | 3     | 7  |
| 6:30 AM  | 6                            | 1    | 0      | 7     | 0               | 0    | 0      | 0     | 0                            | 0    | 7      | 0     | 7     | 14 |
| 6:45 AM  | 4                            | 1    | 0      | 5     | 0               | 0    | 0      | 0     | 0                            | 1    | 8      | 0     | 9     | 14 |
| Total    | 16                           | 3    | 0      | 19    | 0               | 0    | 0      | 0     | 0                            | 1    | 19     | 0     | 20    | 39 |
| 7:00 AM  | 2                            | 2    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 5    | 7      | 0     | 12    | 16 |
| 7:15 AM  | 5                            | 5    | 0      | 10    | 1               | 0    | 0      | 1     | 1                            | 3    | 9      | 0     | 12    | 23 |
| 7:30 AM  | 7                            | 2    | 0      | 9     | 0               | 0    | 0      | 0     | 0                            | 3    | 13     | 0     | 16    | 25 |
| 7:45 AM  | 1                            | 2    | 0      | 3     | 0               | 1    | 0      | 1     | 1                            | 4    | 6      | 0     | 10    | 14 |
| Total    | 15                           | 11   | 0      | 26    | 1               | 1    | 0      | 2     | 2                            | 15   | 35     | 0     | 50    | 78 |
| 8:00 AM  | 6                            | 0    | 0      | 6     | 0               | 0    | 0      | 0     | 0                            | 7    | 12     | 0     | 19    | 25 |
| 8:15 AM  | 3                            | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 2    | 6      | 0     | 8     | 11 |
| 8:30 AM  | 10                           | 0    | 0      | 10    | 1               | 0    | 0      | 1     | 1                            | 1    | 7      | 0     | 8     | 19 |
| 8:45 AM  | 5                            | 0    | 0      | 5     | 0               | 0    | 0      | 0     | 0                            | 0    | 5      | 0     | 5     | 10 |
| Total    | 24                           | 0    | 0      | 24    | 1               | 0    | 0      | 1     | 1                            | 10   | 30     | 0     | 40    | 65 |
| 9:00 AM  | 3                            | 1    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 1    | 7      | 0     | 8     | 12 |
| 9:15 AM  | 4                            | 2    | 0      | 6     | 1               | 1    | 0      | 2     | 2                            | 1    | 7      | 0     | 8     | 16 |
| 9:30 AM  | 5                            | 1    | 0      | 6     | 0               | 0    | 0      | 0     | 0                            | 1    | 8      | 0     | 9     | 15 |
| 9:45 AM  | 11                           | 0    | 0      | 11    | 0               | 1    | 0      | 1     | 1                            | 1    | 11     | 0     | 12    | 24 |
| Total    | 23                           | 4    | 0      | 27    | 1               | 2    | 0      | 3     | 3                            | 4    | 33     | 0     | 37    | 67 |
| 10:00 AM | 10                           | 0    | 0      | 10    | 0               | 1    | 0      | 1     | 1                            | 1    | 4      | 0     | 5     | 16 |
| 10:15 AM | 4                            | 1    | 0      | 5     | 0               | 1    | 0      | 1     | 1                            | 0    | 5      | 0     | 5     | 11 |
| 10:30 AM | 9                            | 0    | 0      | 9     | 0               | 0    | 0      | 0     | 0                            | 1    | 2      | 0     | 3     | 12 |
| 10:45 AM | 9                            | 1    | 0      | 10    | 0               | 2    | 0      | 2     | 2                            | 0    | 10     | 0     | 10    | 22 |
| Total    | 32                           | 2    | 0      | 34    | 0               | 4    | 0      | 4     | 4                            | 2    | 21     | 0     | 23    | 61 |
| 11:00 AM | 7                            | 1    | 0      | 8     | 0               | 0    | 0      | 0     | 0                            | 0    | 8      | 0     | 8     | 16 |
| 11:15 AM | 6                            | 0    | 0      | 6     | 0               | 0    | 0      | 0     | 0                            | 0    | 6      | 0     | 6     | 12 |
| 11:30 AM | 10                           | 0    | 0      | 10    | 0               | 0    | 0      | 0     | 0                            | 2    | 2      | 0     | 4     | 14 |
| 11:45 AM | 3                            | 0    | 0      | 3     | 0               | 1    | 0      | 1     | 1                            | 2    | 0      | 0     | 2     | 6  |
| Total    | 26                           | 1    | 0      | 27    | 0               | 1    | 0      | 1     | 1                            | 4    | 16     | 0     | 20    | 48 |
| 12:00 PM | 6                            | 2    | 0      | 8     | 1               | 2    | 0      | 3     | 3                            | 1    | 10     | 0     | 11    | 22 |
| 12:15 PM | 8                            | 0    | 0      | 8     | 0               | 0    | 0      | 0     | 0                            | 0    | 3      | 0     | 3     | 11 |
| 12:30 PM | 9                            | 1    | 0      | 10    | 0               | 0    | 0      | 0     | 0                            | 1    | 4      | 0     | 5     | 15 |
| 12:45 PM | 4                            | 0    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 1    | 11     | 0     | 12    | 16 |
| Total    | 27                           | 3    | 0      | 30    | 1               | 2    | 0      | 3     | 3                            | 3    | 28     | 0     | 31    | 64 |
| 1:00 PM  | 7                            | 0    | 0      | 7     | 0               | 1    | 0      | 1     | 1                            | 0    | 5      | 0     | 5     | 13 |
| 1:15 PM  | 9                            | 1    | 0      | 10    | 1               | 0    | 0      | 1     | 1                            | 1    | 4      | 0     | 5     | 16 |
| 1:30 PM  | 3                            | 0    | 0      | 3     | 0               | 1    | 0      | 1     | 1                            | 0    | 5      | 0     | 5     | 9  |
| 1:45 PM  | 1                            | 0    | 0      | 1     | 0               | 1    | 0      | 1     | 1                            | 0    | 5      | 0     | 5     | 7  |
| Total    | 20                           | 1    | 0      | 21    | 1               | 3    | 0      | 4     | 4                            | 1    | 19     | 0     | 20    | 45 |
| 2:00 PM  | 6                            | 0    | 0      | 6     | 0               | 1    | 0      | 1     | 1                            | 1    | 1      | 0     | 2     | 9  |
| 2:15 PM  | 3                            | 0    | 0      | 3     | 0               | 1    | 0      | 1     | 1                            | 0    | 9      | 0     | 9     | 13 |
| 2:30 PM  | 6                            | 1    | 0      | 7     | 1               | 2    | 0      | 3     | 3                            | 3    | 5      | 0     | 8     | 18 |
| 2:45 PM  | 7                            | 0    | 0      | 7     | 0               | 2    | 0      | 2     | 2                            | 0    | 3      | 0     | 3     | 12 |
| Total    | 22                           | 1    | 0      | 23    | 1               | 6    | 0      | 7     | 7                            | 4    | 18     | 0     | 22    | 52 |
| 3:00 PM  | 2                            | 1    | 0      | 3     | 1               | 0    | 0      | 1     | 1                            | 1    | 4      | 0     | 5     | 9  |
| 3:15 PM  | 4                            | 1    | 0      | 5     | 0               | 0    | 0      | 0     | 0                            | 0    | 2      | 0     | 2     | 7  |
| 3:30 PM  | 5                            | 0    | 0      | 5     | 0               | 2    | 0      | 2     | 2                            | 0    | 3      | 0     | 3     | 10 |
| 3:45 PM  | 3                            | 1    | 0      | 4     | 0               | 1    | 0      | 1     | 1                            | 0    | 5      | 0     | 5     | 10 |
| Total    | 14                           | 3    | 0      | 17    | 1               | 3    | 0      | 4     | 4                            | 1    | 14     | 0     | 15    | 36 |
| 4:00 PM  | 1                            | 0    | 0      | 1     | 1               | 1    | 0      | 2     | 2                            | 0    | 7      | 0     | 7     | 10 |
| 4:15 PM  | 4                            | 1    | 0      | 5     | 0               | 5    | 0      | 5     | 5                            | 0    | 3      | 0     | 3     | 13 |
| 4:30 PM  | 3                            | 1    | 0      | 4     | 0               | 3    | 0      | 3     | 3                            | 0    | 4      | 0     | 4     | 11 |
| 4:45 PM  | 3                            | 0    | 0      | 3     | 0               | 8    | 0      | 8     | 8                            | 0    | 6      | 0     | 6     | 17 |
| Total    | 11                           | 2    | 0      | 13    | 1               | 17   | 0      | 18    | 18                           | 0    | 20     | 0     | 20    | 51 |
| 5:00 PM  | 2                            | 0    | 0      | 2     | 0               | 3    | 0      | 3     | 3                            | 0    | 3      | 0     | 3     | 8  |
| 5:15 PM  | 2                            | 1    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 0    | 5      | 0     | 5     | 8  |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



|                          | Washington Street (Route 16) |             |            |             | Highland Street |             |            |            | Washington Street (Route 16) |             |            |             | Total      |
|--------------------------|------------------------------|-------------|------------|-------------|-----------------|-------------|------------|------------|------------------------------|-------------|------------|-------------|------------|
|                          | from East                    |             |            |             | from South      |             |            |            | from West                    |             |            |             |            |
|                          | Thru                         | Left        | U-Turn     | Total       | Right           | Left        | U-Turn     | Total      | Right                        | Thru        | U-Turn     | Total       |            |
| 5:30 PM                  | 3                            | 0           | 0          | 3           | 0               | 1           | 0          | 1          | 0                            | 2           | 0          | 2           | 6          |
| 5:45 PM                  | 8                            | 0           | 0          | 8           | 0               | 1           | 0          | 1          | 0                            | 2           | 0          | 2           | 11         |
| <b>Total</b>             | <b>15</b>                    | <b>1</b>    | <b>0</b>   | <b>16</b>   | <b>0</b>        | <b>5</b>    | <b>0</b>   | <b>5</b>   | <b>0</b>                     | <b>12</b>   | <b>0</b>   | <b>12</b>   | <b>33</b>  |
| 6:00 PM                  | 4                            | 0           | 0          | 4           | 0               | 0           | 0          | 0          | 0                            | 4           | 0          | 4           | 8          |
| 6:15 PM                  | 3                            | 1           | 0          | 4           | 0               | 0           | 0          | 0          | 1                            | 5           | 0          | 6           | 10         |
| 6:30 PM                  | 2                            | 0           | 0          | 2           | 0               | 1           | 0          | 1          | 0                            | 5           | 0          | 5           | 8          |
| 6:45 PM                  | 1                            | 1           | 0          | 2           | 1               | 1           | 0          | 2          | 0                            | 1           | 0          | 1           | 5          |
| <b>Total</b>             | <b>10</b>                    | <b>2</b>    | <b>0</b>   | <b>12</b>   | <b>1</b>        | <b>2</b>    | <b>0</b>   | <b>3</b>   | <b>1</b>                     | <b>15</b>   | <b>0</b>   | <b>16</b>   | <b>31</b>  |
| 7:00 PM                  | 2                            | 0           | 0          | 2           | 0               | 0           | 0          | 0          | 0                            | 1           | 0          | 1           | 3          |
| 7:15 PM                  | 1                            | 0           | 0          | 1           | 0               | 0           | 0          | 0          | 0                            | 2           | 0          | 2           | 3          |
| 7:30 PM                  | 1                            | 0           | 0          | 1           | 0               | 0           | 0          | 0          | 0                            | 1           | 0          | 1           | 2          |
| 7:45 PM                  | 2                            | 0           | 0          | 2           | 0               | 0           | 0          | 0          | 0                            | 1           | 0          | 1           | 3          |
| <b>Total</b>             | <b>6</b>                     | <b>0</b>    | <b>0</b>   | <b>6</b>    | <b>0</b>        | <b>0</b>    | <b>0</b>   | <b>0</b>   | <b>0</b>                     | <b>5</b>    | <b>0</b>   | <b>5</b>    | <b>11</b>  |
| <b>Grand Total</b>       | <b>261</b>                   | <b>34</b>   | <b>0</b>   | <b>295</b>  | <b>9</b>        | <b>46</b>   | <b>0</b>   | <b>55</b>  | <b>46</b>                    | <b>285</b>  | <b>0</b>   | <b>331</b>  | <b>681</b> |
| <b>Approach %</b>        | <b>88.5</b>                  | <b>11.5</b> | <b>0.0</b> |             | <b>16.4</b>     | <b>83.6</b> | <b>0.0</b> |            | <b>13.9</b>                  | <b>86.1</b> | <b>0.0</b> |             |            |
| <b>Total %</b>           | <b>38.3</b>                  | <b>5.0</b>  | <b>0.0</b> | <b>43.3</b> | <b>1.3</b>      | <b>6.8</b>  | <b>0.0</b> | <b>8.1</b> | <b>6.8</b>                   | <b>41.9</b> | <b>0.0</b> | <b>48.6</b> |            |
| <b>Exiting Leg Total</b> |                              |             |            | <b>294</b>  |                 |             |            | <b>80</b>  |                              |             |            | <b>307</b>  | <b>681</b> |
| Buses                    | 42                           | 3           | 0          | 45          | 1               | 1           | 0          | 2          | 3                            | 44          | 0          | 47          | 94         |
| % Buses                  | 16.1                         | 8.8         | 0.0        | 15.3        | 11.1            | 2.2         | 0.0        | 3.6        | 6.5                          | 15.4        | 0.0        | 14.2        | 13.8       |
| <b>Exiting Leg Total</b> |                              |             |            | <b>45</b>   |                 |             |            | <b>6</b>   |                              |             |            | <b>43</b>   | <b>94</b>  |
| Single-Unit Trucks       | 182                          | 22          | 0          | 204         | 7               | 31          | 0          | 38         | 33                           | 194         | 0          | 227         | 469        |
| % Single-Unit            | 69.7                         | 64.7        | 0.0        | 69.2        | 77.8            | 67.4        | 0.0        | 69.1       | 71.7                         | 68.1        | 0.0        | 68.6        | 68.9       |
| <b>Exiting Leg Total</b> |                              |             |            | <b>201</b>  |                 |             |            | <b>55</b>  |                              |             |            | <b>213</b>  | <b>469</b> |
| Articulated Trucks       | 37                           | 9           | 0          | 46          | 1               | 14          | 0          | 15         | 10                           | 47          | 0          | 57          | 118        |
| % Articulated            | 14.2                         | 26.5        | 0.0        | 15.6        | 11.1            | 30.4        | 0.0        | 27.3       | 21.7                         | 16.5        | 0.0        | 17.2        | 17.3       |
| <b>Exiting Leg Total</b> |                              |             |            | <b>48</b>   |                 |             |            | <b>19</b>  |                              |             |            | <b>51</b>   | <b>118</b> |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

| 7:15 AM                   | Washington Street (Route 16) |              |              |              | Highland Street |              |              |              | Washington Street (Route 16) |              |              |              | Total        |
|---------------------------|------------------------------|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|------------------------------|--------------|--------------|--------------|--------------|
|                           | from East                    |              |              |              | from South      |              |              |              | from West                    |              |              |              |              |
|                           | Thru                         | Left         | U-Turn       | Total        | Right           | Left         | U-Turn       | Total        | Right                        | Thru         | U-Turn       | Total        |              |
| 7:15 AM                   | 5                            | 5            | 0            | 10           | 1               | 0            | 0            | 1            | 3                            | 9            | 0            | 12           | 23           |
| 7:30 AM                   | 7                            | 2            | 0            | 9            | 0               | 0            | 0            | 0            | 3                            | 13           | 0            | 16           | 25           |
| 7:45 AM                   | 1                            | 2            | 0            | 3            | 0               | 1            | 0            | 1            | 4                            | 6            | 0            | 10           | 14           |
| 8:00 AM                   | 6                            | 0            | 0            | 6            | 0               | 0            | 0            | 0            | 7                            | 12           | 0            | 19           | 25           |
| <b>Total Volume</b>       | <b>19</b>                    | <b>9</b>     | <b>0</b>     | <b>28</b>    | <b>1</b>        | <b>1</b>     | <b>0</b>     | <b>2</b>     | <b>17</b>                    | <b>40</b>    | <b>0</b>     | <b>57</b>    | <b>87</b>    |
| <b>% Approach Total</b>   | <b>67.9</b>                  | <b>32.1</b>  | <b>0.0</b>   |              | <b>50.0</b>     | <b>50.0</b>  | <b>0.0</b>   |              | <b>29.8</b>                  | <b>70.2</b>  | <b>0.0</b>   |              |              |
| <b>PHF</b>                | <b>0.679</b>                 | <b>0.450</b> | <b>0.000</b> | <b>0.700</b> | <b>0.250</b>    | <b>0.250</b> | <b>0.000</b> | <b>0.500</b> | <b>0.607</b>                 | <b>0.769</b> | <b>0.000</b> | <b>0.750</b> | <b>0.870</b> |
| Buses                     | 7                            | 0            | 0            | 7            | 0               | 0            | 0            | 0            | 0                            | 5            | 0            | 5            | 12           |
| Buses %                   | 36.8                         | 0.0          | 0.0          | 25.0         | 0.0             | 0.0          | 0.0          | 0.0          | 0.0                          | 12.5         | 0.0          | 8.8          | 13.8         |
| Single-Unit Trucks        | 12                           | 4            | 0            | 16           | 1               | 0            | 0            | 1            | 11                           | 27           | 0            | 38           | 55           |
| Single-Unit %             | 63.2                         | 44.4         | 0.0          | 57.1         | 100.0           | 0.0          | 0.0          | 50.0         | 64.7                         | 67.5         | 0.0          | 66.7         | 63.2         |
| Articulated Trucks        | 0                            | 5            | 0            | 5            | 0               | 1            | 0            | 1            | 6                            | 8            | 0            | 14           | 20           |
| Articulated %             | 0.0                          | 55.6         | 0.0          | 17.9         | 0.0             | 100.0        | 0.0          | 50.0         | 35.3                         | 20.0         | 0.0          | 24.6         | 23.0         |
| Buses                     | 7                            | 0            | 0            | 7            | 0               | 0            | 0            | 0            | 0                            | 5            | 0            | 5            | 12           |
| Single-Unit Trucks        | 12                           | 4            | 0            | 16           | 1               | 0            | 0            | 1            | 11                           | 27           | 0            | 38           | 55           |
| Articulated Trucks        | 0                            | 5            | 0            | 5            | 0               | 1            | 0            | 1            | 6                            | 8            | 0            | 14           | 20           |
| <b>Total Entering Leg</b> | <b>19</b>                    | <b>9</b>     | <b>0</b>     | <b>28</b>    | <b>1</b>        | <b>1</b>     | <b>0</b>     | <b>2</b>     | <b>17</b>                    | <b>40</b>    | <b>0</b>     | <b>57</b>    | <b>87</b>    |
| Buses                     |                              |              |              | 5            |                 |              |              | 0            |                              |              |              | 7            | 12           |
| Single-Unit Trucks        |                              |              |              | 28           |                 |              |              | 15           |                              |              |              | 12           | 55           |
| Articulated Trucks        |                              |              |              | 8            |                 |              |              | 11           |                              |              |              | 1            | 20           |
| <b>Total Exiting Leg</b>  |                              |              |              | <b>41</b>    |                 |              |              | <b>26</b>    |                              |              |              | <b>20</b>    | <b>87</b>    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

| 10:45 AM | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|          | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                    | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 10:45 AM           | 9                            | 1     | 0      | 10    | 0               | 2     | 0      | 2     | 0                            | 10    | 0      | 10    | 22    |
| 11:00 AM           | 7                            | 1     | 0      | 8     | 0               | 0     | 0      | 0     | 0                            | 8     | 0      | 8     | 16    |
| 11:15 AM           | 6                            | 0     | 0      | 6     | 0               | 0     | 0      | 0     | 0                            | 6     | 0      | 6     | 12    |
| 11:30 AM           | 10                           | 0     | 0      | 10    | 0               | 0     | 0      | 0     | 2                            | 2     | 0      | 4     | 14    |
| Total Volume       | 32                           | 2     | 0      | 34    | 0               | 2     | 0      | 2     | 2                            | 26    | 0      | 28    | 64    |
| % Approach Total   | 94.1                         | 5.9   | 0.0    |       | 0.0             | 100.0 | 0.0    |       | 7.1                          | 92.9  | 0.0    |       |       |
| PHF                | 0.800                        | 0.500 | 0.000  | 0.850 | 0.000           | 0.250 | 0.000  | 0.250 | 0.250                        | 0.650 | 0.000  | 0.700 | 0.727 |
| Buses              | 2                            | 0     | 0      | 2     | 0               | 0     | 0      | 0     | 0                            | 1     | 0      | 1     | 3     |
| Buses %            | 6.3                          | 0.0   | 0.0    | 5.9   | 0.0             | 0.0   | 0.0    | 0.0   | 0.0                          | 3.8   | 0.0    | 3.6   | 4.7   |
| Single-Unit Trucks | 23                           | 2     | 0      | 25    | 0               | 2     | 0      | 2     | 2                            | 22    | 0      | 24    | 51    |
| Single-Unit %      | 71.9                         | 100.0 | 0.0    | 73.5  | 0.0             | 100.0 | 0.0    | 100.0 | 100.0                        | 84.6  | 0.0    | 85.7  | 79.7  |
| Articulated Trucks | 7                            | 0     | 0      | 7     | 0               | 0     | 0      | 0     | 0                            | 3     | 0      | 3     | 10    |
| Articulated %      | 21.9                         | 0.0   | 0.0    | 20.6  | 0.0             | 0.0   | 0.0    | 0.0   | 0.0                          | 11.5  | 0.0    | 10.7  | 15.6  |
| Buses              | 2                            | 0     | 0      | 2     | 0               | 0     | 0      | 0     | 0                            | 1     | 0      | 1     | 3     |
| Single-Unit Trucks | 23                           | 2     | 0      | 25    | 0               | 2     | 0      | 2     | 2                            | 22    | 0      | 24    | 51    |
| Articulated Trucks | 7                            | 0     | 0      | 7     | 0               | 0     | 0      | 0     | 0                            | 3     | 0      | 3     | 10    |
| Total Entering Leg | 32                           | 2     | 0      | 34    | 0               | 2     | 0      | 2     | 2                            | 26    | 0      | 28    | 64    |
| Buses              |                              |       |        | 1     |                 |       |        | 0     |                              |       |        | 2     | 3     |
| Single-Unit Trucks |                              |       |        | 22    |                 |       |        | 4     |                              |       |        | 25    | 51    |
| Articulated Trucks |                              |       |        | 3     |                 |       |        | 0     |                              |       |        | 7     | 10    |
| Total Exiting Leg  |                              |       |        | 26    |                 |       |        | 4     |                              |       |        | 34    | 64    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|                    | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                    | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 2:00 PM            | 6                            | 0     | 0      | 6     | 0               | 1     | 0      | 1     | 1                            | 1     | 0      | 2     | 9     |
| 2:15 PM            | 3                            | 0     | 0      | 3     | 0               | 1     | 0      | 1     | 0                            | 9     | 0      | 9     | 13    |
| 2:30 PM            | 6                            | 1     | 0      | 7     | 1               | 2     | 0      | 3     | 3                            | 5     | 0      | 8     | 18    |
| 2:45 PM            | 7                            | 0     | 0      | 7     | 0               | 2     | 0      | 2     | 0                            | 3     | 0      | 3     | 12    |
| Total Volume       | 22                           | 1     | 0      | 23    | 1               | 6     | 0      | 7     | 4                            | 18    | 0      | 22    | 52    |
| % Approach Total   | 95.7                         | 4.3   | 0.0    |       | 14.3            | 85.7  | 0.0    |       | 18.2                         | 81.8  | 0.0    |       |       |
| PHF                | 0.786                        | 0.250 | 0.000  | 0.821 | 0.250           | 0.750 | 0.000  | 0.583 | 0.333                        | 0.500 | 0.000  | 0.611 | 0.722 |
| Buses              | 2                            | 1     | 0      | 3     | 0               | 0     | 0      | 0     | 2                            | 5     | 0      | 7     | 10    |
| Buses %            | 9.1                          | 100.0 | 0.0    | 13.0  | 0.0             | 0.0   | 0.0    | 0.0   | 50.0                         | 27.8  | 0.0    | 31.8  | 19.2  |
| Single-Unit Trucks | 18                           | 0     | 0      | 18    | 0               | 6     | 0      | 6     | 2                            | 11    | 0      | 13    | 37    |
| Single-Unit %      | 81.8                         | 0.0   | 0.0    | 78.3  | 0.0             | 100.0 | 0.0    | 85.7  | 50.0                         | 61.1  | 0.0    | 59.1  | 71.2  |
| Articulated Trucks | 2                            | 0     | 0      | 2     | 1               | 0     | 0      | 1     | 0                            | 2     | 0      | 2     | 5     |
| Articulated %      | 9.1                          | 0.0   | 0.0    | 8.7   | 100.0           | 0.0   | 0.0    | 14.3  | 0.0                          | 11.1  | 0.0    | 9.1   | 9.6   |
| Buses              | 2                            | 1     | 0      | 3     | 0               | 0     | 0      | 0     | 2                            | 5     | 0      | 7     | 10    |
| Single-Unit Trucks | 18                           | 0     | 0      | 18    | 0               | 6     | 0      | 6     | 2                            | 11    | 0      | 13    | 37    |
| Articulated Trucks | 2                            | 0     | 0      | 2     | 1               | 0     | 0      | 1     | 0                            | 2     | 0      | 2     | 5     |
| Total Entering Leg | 22                           | 1     | 0      | 23    | 1               | 6     | 0      | 7     | 4                            | 18    | 0      | 22    | 52    |
| Buses              |                              |       |        | 5     |                 |       |        | 3     |                              |       |        | 2     | 10    |
| Single-Unit Trucks |                              |       |        | 11    |                 |       |        | 2     |                              |       |        | 24    | 37    |
| Articulated Trucks |                              |       |        | 3     |                 |       |        | 0     |                              |       |        | 2     | 5     |
| Total Exiting Leg  |                              |       |        | 19    |                 |       |        | 5     |                              |       |        | 28    | 52    |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|          | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|          | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |
| 6:00 AM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 6:15 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 6:30 AM  | 3                            | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 4     |
| 6:45 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total    | 4                            | 0    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 5     |
| 7:00 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| 7:15 AM  | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 4     |
| 7:30 AM  | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 4     |
| 7:45 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total    | 4                            | 0    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 5    | 0      | 5     | 9     |
| 8:00 AM  | 3                            | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 4     |
| 8:15 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 2     |
| 8:30 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 2     |
| 8:45 AM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 2     |
| Total    | 4                            | 0    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 6    | 0      | 6     | 10    |
| 9:00 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 1      | 2     | 2     |
| 9:15 AM  | 4                            | 1    | 0      | 5     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 5     |
| 9:30 AM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 9:45 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| Total    | 5                            | 1    | 0      | 6     | 0               | 0    | 0      | 0     | 0                            | 1    | 2      | 3     | 9     |
| 10:00 AM | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 2     |
| 10:15 AM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 10:30 AM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| 10:45 AM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total    | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 3     |
| 11:00 AM | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 11:15 AM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| 11:30 AM | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 11:45 AM | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| Total    | 3                            | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 4     |
| 12:00 PM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| 12:15 PM | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 12:30 PM | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 12:45 PM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| Total    | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 4     |
| 1:00 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 1:15 PM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 1:30 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| 1:45 PM  | 0                            | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| Total    | 1                            | 0    | 0      | 1     | 0               | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 3     |
| 2:00 PM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 1    | 1      | 2     | 3     |
| 2:15 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 3     |
| 2:30 PM  | 0                            | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 1    | 1      | 2     | 3     |
| 2:45 PM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| Total    | 2                            | 1    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 2    | 5      | 7     | 10    |
| 3:00 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 2     |
| 3:15 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| 3:30 PM  | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2     |
| 3:45 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| Total    | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 4    | 0      | 4     | 6     |
| 4:00 PM  | 0                            | 0    | 0      | 0     | 1               | 0    | 0      | 1     | 0                            | 2    | 0      | 2     | 3     |
| 4:15 PM  | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2     |
| 4:30 PM  | 1                            | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 3     |
| 4:45 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| Total    | 3                            | 1    | 0      | 4     | 1               | 0    | 0      | 1     | 0                            | 4    | 0      | 4     | 9     |
| 5:00 PM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 5:15 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 2     |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|                    | Washington Street (Route 16) |          |          |           | Highland Street |          |          |          | Washington Street (Route 16) |           |          |           | Total     |    |
|--------------------|------------------------------|----------|----------|-----------|-----------------|----------|----------|----------|------------------------------|-----------|----------|-----------|-----------|----|
|                    | from East                    |          |          |           | from South      |          |          |          | from West                    |           |          |           |           |    |
|                    | Thru                         | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right                        | Thru      | U-Turn   | Total     |           |    |
| 5:30 PM            | 2                            | 0        | 0        | 2         | 0               | 0        | 0        | 0        | 0                            | 0         | 0        | 0         | 2         |    |
| 5:45 PM            | 2                            | 0        | 0        | 2         | 0               | 0        | 0        | 0        | 0                            | 1         | 0        | 1         | 3         |    |
| <b>Total</b>       | <b>5</b>                     | <b>0</b> | <b>0</b> | <b>5</b>  | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>3</b>  | <b>0</b> | <b>3</b>  | <b>8</b>  |    |
| 6:00 PM            | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                            | 3         | 0        | 3         | 4         |    |
| 6:15 PM            | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                            | 0         | 0        | 0         | 1         |    |
| 6:30 PM            | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                            | 1         | 0        | 1         | 2         |    |
| 6:45 PM            | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                            | 0         | 0        | 0         | 1         |    |
| <b>Total</b>       | <b>4</b>                     | <b>0</b> | <b>0</b> | <b>4</b>  | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>4</b>  | <b>0</b> | <b>4</b>  | <b>8</b>  |    |
| 7:00 PM            | 0                            | 0        | 0        | 0         | 0               | 0        | 0        | 0        | 0                            | 1         | 0        | 1         | 1         |    |
| 7:15 PM            | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                            | 2         | 0        | 2         | 3         |    |
| 7:30 PM            | 0                            | 0        | 0        | 0         | 0               | 0        | 0        | 0        | 0                            | 0         | 0        | 0         | 0         |    |
| 7:45 PM            | 1                            | 0        | 0        | 1         | 0               | 0        | 0        | 0        | 0                            | 1         | 0        | 1         | 2         |    |
| <b>Total</b>       | <b>2</b>                     | <b>0</b> | <b>0</b> | <b>2</b>  | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>4</b>  | <b>0</b> | <b>4</b>  | <b>6</b>  |    |
| <b>Grand Total</b> | <b>42</b>                    | <b>3</b> | <b>0</b> | <b>45</b> | <b>1</b>        | <b>1</b> | <b>0</b> | <b>2</b> | <b>3</b>                     | <b>44</b> | <b>0</b> | <b>47</b> | <b>94</b> |    |
| Approach %         | 93.3                         | 6.7      | 0.0      |           | 50.0            | 50.0     | 0.0      |          | 6.4                          | 93.6      | 0.0      |           |           |    |
| Total %            | 44.7                         | 3.2      | 0.0      | 47.9      | 1.1             | 1.1      | 0.0      | 2.1      | 3.2                          | 46.8      | 0.0      | 50.0      |           |    |
| Exiting Leg Total  |                              |          |          |           | 45              |          |          |          | 6                            |           |          |           | 43        | 94 |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Washington Street (Route 16) |          |          |          | Highland Street |          |          |          | Washington Street (Route 16) |          |          |          | Total     |    |
|---------------------|------------------------------|----------|----------|----------|-----------------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|----|
|                     | from East                    |          |          |          | from South      |          |          |          | from West                    |          |          |          |           |    |
|                     | Thru                         | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    |           |    |
| 7:15 AM             | 2                            | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 0                            | 2        | 0        | 2        | 4         |    |
| 7:30 AM             | 2                            | 0        | 0        | 2        | 0               | 0        | 0        | 0        | 0                            | 2        | 0        | 2        | 4         |    |
| 7:45 AM             | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         |    |
| 8:00 AM             | 3                            | 0        | 0        | 3        | 0               | 0        | 0        | 0        | 0                            | 1        | 0        | 1        | 4         |    |
| <b>Total Volume</b> | <b>7</b>                     | <b>0</b> | <b>0</b> | <b>7</b> | <b>0</b>        | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>                     | <b>5</b> | <b>0</b> | <b>5</b> | <b>12</b> |    |
| % Approach Total    | 100.0                        | 0.0      | 0.0      |          | 0.0             | 0.0      | 0.0      |          | 0.0                          | 100.0    | 0.0      |          |           |    |
| PHF                 | 0.583                        | 0.000    | 0.000    | 0.583    | 0.000           | 0.000    | 0.000    | 0.000    | 0.000                        | 0.625    | 0.000    | 0.625    | 0.750     |    |
| Entering Leg        | 7                            | 0        | 0        | 7        | 0               | 0        | 0        | 0        | 0                            | 5        | 0        | 5        | 12        |    |
| Exiting Leg         |                              |          |          |          | 5               |          |          |          | 0                            |          |          |          | 7         | 12 |
| <b>Total</b>        | <b>12</b>                    |          |          |          | <b>0</b>        |          |          |          | <b>12</b>                    |          |          |          | <b>24</b> |    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Washington Street (Route 16) |          |          |          | Highland Street |          |          |          | Washington Street (Route 16) |          |          |          | Total     |    |
|---------------------|------------------------------|----------|----------|----------|-----------------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|----|
|                     | from East                    |          |          |          | from South      |          |          |          | from West                    |          |          |          |           |    |
|                     | Thru                         | Left     | U-Turn   | Total    | Right           | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    |           |    |
| 1:45 PM             | 0                            | 0        | 0        | 0        | 0               | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 1         |    |
| 2:00 PM             | 1                            | 0        | 0        | 1        | 0               | 0        | 0        | 0        | 1                            | 1        | 0        | 2        | 3         |    |
| 2:15 PM             | 0                            | 0        | 0        | 0        | 0               | 0        | 0        | 0        | 0                            | 3        | 0        | 3        | 3         |    |
| 2:30 PM             | 0                            | 1        | 0        | 1        | 0               | 0        | 0        | 0        | 1                            | 1        | 0        | 2        | 3         |    |
| <b>Total Volume</b> | <b>1</b>                     | <b>1</b> | <b>0</b> | <b>2</b> | <b>0</b>        | <b>1</b> | <b>0</b> | <b>1</b> | <b>2</b>                     | <b>5</b> | <b>0</b> | <b>7</b> | <b>10</b> |    |
| % Approach Total    | 50.0                         | 50.0     | 0.0      |          | 0.0             | 100.0    | 0.0      |          | 28.6                         | 71.4     | 0.0      |          |           |    |
| PHF                 | 0.250                        | 0.250    | 0.000    | 0.500    | 0.000           | 0.250    | 0.000    | 0.250    | 0.500                        | 0.417    | 0.000    | 0.583    | 0.833     |    |
| Entering Leg        | 1                            | 1        | 0        | 2        | 0               | 1        | 0        | 1        | 2                            | 5        | 0        | 7        | 10        |    |
| Exiting Leg         |                              |          |          |          | 5               |          |          |          | 3                            |          |          |          | 2         | 10 |
| <b>Total</b>        | <b>7</b>                     |          |          |          | <b>4</b>        |          |          |          | <b>9</b>                     |          |          |          | <b>20</b> |    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|---------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|         | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|         | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |
| 5:15 PM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 2     |
| 5:30 PM | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2     |
| 5:45 PM | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 3     |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



Class:

**Buses**

|                  | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                  | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 6:00 PM          | 1                            | 0     | 0      | 1     | 0               | 0     | 0      | 0     | 0                            | 3     | 0      | 3     | 4     |
| Total Volume     | 5                            | 0     | 0      | 5     | 0               | 0     | 0      | 0     | 0                            | 6     | 0      | 6     | 11    |
| % Approach Total | 100.0                        | 0.0   | 0.0    |       | 0.0             | 0.0   | 0.0    |       | 0.0                          | 100.0 | 0.0    |       |       |
| PHF              | 0.625                        | 0.000 | 0.000  | 0.625 | 0.000           | 0.000 | 0.000  | 0.000 | 0.000                        | 0.500 | 0.000  | 0.500 | 0.688 |
| Entering Leg     | 5                            | 0     | 0      | 5     | 0               | 0     | 0      | 0     | 0                            | 6     | 0      | 6     | 11    |
| Exiting Leg      |                              |       |        | 6     |                 |       |        | 0     |                              |       |        | 5     | 11    |
| Total            |                              |       |        | 11    |                 |       |        | 0     |                              |       |        | 11    | 22    |



PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Single-Unit Trucks**

|          | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |    |
|----------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|----|
|          | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |    |
|          | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |    |
| 6:00 AM  | 1                            | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 0    | 1      | 0     | 1     | 3  |
| 6:15 AM  | 3                            | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 0    | 3      | 0     | 3     | 6  |
| 6:30 AM  | 2                            | 1    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 0    | 4      | 0     | 4     | 7  |
| 6:45 AM  | 4                            | 1    | 0      | 5     | 0               | 0    | 0      | 0     | 0                            | 0    | 7      | 0     | 7     | 12 |
| Total    | 10                           | 3    | 0      | 13    | 0               | 0    | 0      | 0     | 0                            | 0    | 15     | 0     | 15    | 28 |
| 7:00 AM  | 1                            | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 4    | 5      | 0     | 9     | 11 |
| 7:15 AM  | 3                            | 1    | 0      | 4     | 1               | 0    | 0      | 1     | 2                            | 6    | 0      | 8     | 13    | 13 |
| 7:30 AM  | 5                            | 2    | 0      | 7     | 0               | 0    | 0      | 0     | 1                            | 11   | 0      | 12    | 19    | 19 |
| 7:45 AM  | 1                            | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 3                            | 1    | 0      | 4     | 6     | 6  |
| Total    | 10                           | 5    | 0      | 15    | 1               | 0    | 0      | 1     | 10                           | 23   | 0      | 33    | 49    | 49 |
| 8:00 AM  | 3                            | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 5                            | 9    | 0      | 14    | 17    | 17 |
| 8:15 AM  | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 2                            | 4    | 0      | 6     | 8     | 8  |
| 8:30 AM  | 6                            | 0    | 0      | 6     | 1               | 0    | 0      | 1     | 0                            | 5    | 0      | 5     | 12    | 12 |
| 8:45 AM  | 3                            | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 6     | 6  |
| Total    | 14                           | 0    | 0      | 14    | 1               | 0    | 0      | 1     | 7                            | 21   | 0      | 28    | 43    | 43 |
| 9:00 AM  | 3                            | 1    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 5    | 0      | 5     | 9     | 9  |
| 9:15 AM  | 0                            | 1    | 0      | 1     | 1               | 1    | 0      | 2     | 1                            | 6    | 0      | 7     | 10    | 10 |
| 9:30 AM  | 4                            | 1    | 0      | 5     | 0               | 0    | 0      | 0     | 1                            | 6    | 0      | 7     | 12    | 12 |
| 9:45 AM  | 9                            | 0    | 0      | 9     | 0               | 1    | 0      | 1     | 1                            | 7    | 0      | 8     | 18    | 18 |
| Total    | 16                           | 3    | 0      | 19    | 1               | 2    | 0      | 3     | 3                            | 24   | 0      | 27    | 49    | 49 |
| 10:00 AM | 7                            | 0    | 0      | 7     | 0               | 0    | 0      | 0     | 1                            | 2    | 0      | 3     | 10    | 10 |
| 10:15 AM | 4                            | 1    | 0      | 5     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 8     | 8  |
| 10:30 AM | 7                            | 0    | 0      | 7     | 0               | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 9     | 9  |
| 10:45 AM | 7                            | 1    | 0      | 8     | 0               | 2    | 0      | 2     | 0                            | 8    | 0      | 8     | 18    | 18 |
| Total    | 25                           | 2    | 0      | 27    | 0               | 2    | 0      | 2     | 2                            | 14   | 0      | 16    | 45    | 45 |
| 11:00 AM | 3                            | 1    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 7    | 0      | 7     | 11    | 11 |
| 11:15 AM | 5                            | 0    | 0      | 5     | 0               | 0    | 0      | 0     | 0                            | 5    | 0      | 5     | 10    | 10 |
| 11:30 AM | 8                            | 0    | 0      | 8     | 0               | 0    | 0      | 0     | 2                            | 2    | 0      | 4     | 12    | 12 |
| 11:45 AM | 2                            | 0    | 0      | 2     | 0               | 1    | 0      | 1     | 2                            | 0    | 0      | 2     | 5     | 5  |
| Total    | 18                           | 1    | 0      | 19    | 0               | 1    | 0      | 1     | 4                            | 14   | 0      | 18    | 38    | 38 |
| 12:00 PM | 6                            | 2    | 0      | 8     | 1               | 2    | 0      | 3     | 1                            | 7    | 0      | 8     | 19    | 19 |
| 12:15 PM | 4                            | 0    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 7     | 7  |
| 12:30 PM | 7                            | 0    | 0      | 7     | 0               | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 9     | 9  |
| 12:45 PM | 4                            | 0    | 0      | 4     | 0               | 0    | 0      | 0     | 1                            | 7    | 0      | 8     | 12    | 12 |
| Total    | 21                           | 2    | 0      | 23    | 1               | 2    | 0      | 3     | 3                            | 18   | 0      | 21    | 47    | 47 |
| 1:00 PM  | 6                            | 0    | 0      | 6     | 0               | 1    | 0      | 1     | 0                            | 5    | 0      | 5     | 12    | 12 |
| 1:15 PM  | 6                            | 1    | 0      | 7     | 1               | 0    | 0      | 1     | 0                            | 3    | 0      | 3     | 11    | 11 |
| 1:30 PM  | 3                            | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 6     | 6  |
| 1:45 PM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 4    | 0      | 4     | 5     | 5  |
| Total    | 16                           | 1    | 0      | 17    | 1               | 1    | 0      | 2     | 0                            | 15   | 0      | 15    | 34    | 34 |
| 2:00 PM  | 5                            | 0    | 0      | 5     | 0               | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 6     | 6  |
| 2:15 PM  | 2                            | 0    | 0      | 2     | 0               | 1    | 0      | 1     | 0                            | 5    | 0      | 5     | 8     | 8  |
| 2:30 PM  | 5                            | 0    | 0      | 5     | 0               | 2    | 0      | 2     | 2                            | 4    | 0      | 6     | 13    | 13 |
| 2:45 PM  | 6                            | 0    | 0      | 6     | 0               | 2    | 0      | 2     | 0                            | 2    | 0      | 2     | 10    | 10 |
| Total    | 18                           | 0    | 0      | 18    | 0               | 6    | 0      | 6     | 2                            | 11   | 0      | 13    | 37    | 37 |
| 3:00 PM  | 2                            | 1    | 0      | 3     | 1               | 0    | 0      | 1     | 1                            | 2    | 0      | 3     | 7     | 7  |
| 3:15 PM  | 3                            | 1    | 0      | 4     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 5     | 5  |
| 3:30 PM  | 3                            | 0    | 0      | 3     | 0               | 1    | 0      | 1     | 0                            | 2    | 0      | 2     | 6     | 6  |
| 3:45 PM  | 3                            | 1    | 0      | 4     | 0               | 1    | 0      | 1     | 0                            | 4    | 0      | 4     | 9     | 9  |
| Total    | 11                           | 3    | 0      | 14    | 1               | 2    | 0      | 3     | 1                            | 9    | 0      | 10    | 27    | 27 |
| 4:00 PM  | 1                            | 0    | 0      | 1     | 0               | 1    | 0      | 1     | 0                            | 2    | 0      | 2     | 4     | 4  |
| 4:15 PM  | 1                            | 0    | 0      | 1     | 0               | 5    | 0      | 5     | 0                            | 2    | 0      | 2     | 8     | 8  |
| 4:30 PM  | 2                            | 0    | 0      | 2     | 0               | 2    | 0      | 2     | 0                            | 3    | 0      | 3     | 7     | 7  |
| 4:45 PM  | 2                            | 0    | 0      | 2     | 0               | 3    | 0      | 3     | 0                            | 4    | 0      | 4     | 9     | 9  |
| Total    | 6                            | 0    | 0      | 6     | 0               | 11   | 0      | 11    | 0                            | 11   | 0      | 11    | 28    | 28 |
| 5:00 PM  | 1                            | 0    | 0      | 1     | 0               | 1    | 0      | 1     | 0                            | 3    | 0      | 3     | 5     | 5  |
| 5:15 PM  | 1                            | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 5     | 5  |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Single-Unit Trucks**

|                    | Washington Street (Route 16) |           |          |            | Highland Street |           |          |           | Washington Street (Route 16) |            |          |            | Total      |
|--------------------|------------------------------|-----------|----------|------------|-----------------|-----------|----------|-----------|------------------------------|------------|----------|------------|------------|
|                    | from East                    |           |          |            | from South      |           |          |           | from West                    |            |          |            |            |
|                    | Thru                         | Left      | U-Turn   | Total      | Right           | Left      | U-Turn   | Total     | Right                        | Thru       | U-Turn   | Total      |            |
| 5:30 PM            | 1                            | 0         | 0        | 1          | 0               | 1         | 0        | 1         | 0                            | 2          | 0        | 2          | 4          |
| 5:45 PM            | 6                            | 0         | 0        | 6          | 0               | 1         | 0        | 1         | 0                            | 1          | 0        | 1          | 8          |
| <b>Total</b>       | <b>9</b>                     | <b>1</b>  | <b>0</b> | <b>10</b>  | <b>0</b>        | <b>3</b>  | <b>0</b> | <b>3</b>  | <b>0</b>                     | <b>9</b>   | <b>0</b> | <b>9</b>   | <b>22</b>  |
| 6:00 PM            | 3                            | 0         | 0        | 3          | 0               | 0         | 0        | 0         | 0                            | 1          | 0        | 1          | 4          |
| 6:15 PM            | 2                            | 0         | 0        | 2          | 0               | 0         | 0        | 0         | 1                            | 5          | 0        | 6          | 8          |
| 6:30 PM            | 1                            | 0         | 0        | 1          | 0               | 0         | 0        | 0         | 0                            | 2          | 0        | 2          | 3          |
| 6:45 PM            | 0                            | 1         | 0        | 1          | 1               | 1         | 0        | 2         | 0                            | 1          | 0        | 1          | 4          |
| <b>Total</b>       | <b>6</b>                     | <b>1</b>  | <b>0</b> | <b>7</b>   | <b>1</b>        | <b>1</b>  | <b>0</b> | <b>2</b>  | <b>1</b>                     | <b>9</b>   | <b>0</b> | <b>10</b>  | <b>19</b>  |
| 7:00 PM            | 2                            | 0         | 0        | 2          | 0               | 0         | 0        | 0         | 0                            | 0          | 0        | 0          | 2          |
| 7:15 PM            | 0                            | 0         | 0        | 0          | 0               | 0         | 0        | 0         | 0                            | 0          | 0        | 0          | 0          |
| 7:30 PM            | 0                            | 0         | 0        | 0          | 0               | 0         | 0        | 0         | 0                            | 1          | 0        | 1          | 1          |
| 7:45 PM            | 0                            | 0         | 0        | 0          | 0               | 0         | 0        | 0         | 0                            | 0          | 0        | 0          | 0          |
| <b>Total</b>       | <b>2</b>                     | <b>0</b>  | <b>0</b> | <b>2</b>   | <b>0</b>        | <b>0</b>  | <b>0</b> | <b>0</b>  | <b>0</b>                     | <b>1</b>   | <b>0</b> | <b>1</b>   | <b>3</b>   |
| <b>Grand Total</b> | <b>182</b>                   | <b>22</b> | <b>0</b> | <b>204</b> | <b>7</b>        | <b>31</b> | <b>0</b> | <b>38</b> | <b>33</b>                    | <b>194</b> | <b>0</b> | <b>227</b> | <b>469</b> |
| Approach %         | 89.2                         | 10.8      | 0.0      |            | 18.4            | 81.6      | 0.0      |           | 14.5                         | 85.5       | 0.0      |            |            |
| Total %            | 38.8                         | 4.7       | 0.0      | 43.5       | 1.5             | 6.6       | 0.0      | 8.1       | 7.0                          | 41.4       | 0.0      | 48.4       |            |
| Exiting Leg Total  |                              |           |          | 201        |                 |           |          | 55        |                              |            |          | 213        | 469        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Washington Street (Route 16) |          |          |           | Highland Street |          |          |           | Washington Street (Route 16) |           |          |           | Total      |
|---------------------|------------------------------|----------|----------|-----------|-----------------|----------|----------|-----------|------------------------------|-----------|----------|-----------|------------|
|                     | from East                    |          |          |           | from South      |          |          |           | from West                    |           |          |           |            |
|                     | Thru                         | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total     | Right                        | Thru      | U-Turn   | Total     |            |
| 6:45 AM             | 4                            | 1        | 0        | 5         | 0               | 0        | 0        | 0         | 0                            | 7         | 0        | 7         | 12         |
| 7:00 AM             | 1                            | 1        | 0        | 2         | 0               | 0        | 0        | 0         | 4                            | 5         | 0        | 9         | 11         |
| 7:15 AM             | 3                            | 1        | 0        | 4         | 1               | 0        | 0        | 1         | 2                            | 6         | 0        | 8         | 13         |
| 7:30 AM             | 5                            | 2        | 0        | 7         | 0               | 0        | 0        | 0         | 1                            | 11        | 0        | 12        | 19         |
| <b>Total Volume</b> | <b>13</b>                    | <b>5</b> | <b>0</b> | <b>18</b> | <b>1</b>        | <b>0</b> | <b>0</b> | <b>1</b>  | <b>7</b>                     | <b>29</b> | <b>0</b> | <b>36</b> | <b>55</b>  |
| % Approach Total    | 72.2                         | 27.8     | 0.0      |           | 100.0           | 0.0      | 0.0      |           | 19.4                         | 80.6      | 0.0      |           |            |
| PHF                 | 0.650                        | 0.625    | 0.000    | 0.643     | 0.250           | 0.000    | 0.000    | 0.250     | 0.438                        | 0.659     | 0.000    | 0.750     | 0.724      |
| Entering Leg        | 13                           | 5        | 0        | 18        | 1               | 0        | 0        | 1         | 7                            | 29        | 0        | 36        | 55         |
| Exiting Leg         |                              |          |          | 30        |                 |          |          | 12        |                              |           |          | 13        | 55         |
| <b>Total</b>        |                              |          |          | <b>48</b> |                 |          |          | <b>13</b> |                              |           |          | <b>49</b> | <b>110</b> |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Washington Street (Route 16) |          |          |           | Highland Street |          |          |          | Washington Street (Route 16) |           |          |           | Total      |
|---------------------|------------------------------|----------|----------|-----------|-----------------|----------|----------|----------|------------------------------|-----------|----------|-----------|------------|
|                     | from East                    |          |          |           | from South      |          |          |          | from West                    |           |          |           |            |
|                     | Thru                         | Left     | U-Turn   | Total     | Right           | Left     | U-Turn   | Total    | Right                        | Thru      | U-Turn   | Total     |            |
| 10:45 AM            | 7                            | 1        | 0        | 8         | 0               | 2        | 0        | 2        | 0                            | 8         | 0        | 8         | 18         |
| 11:00 AM            | 3                            | 1        | 0        | 4         | 0               | 0        | 0        | 0        | 0                            | 7         | 0        | 7         | 11         |
| 11:15 AM            | 5                            | 0        | 0        | 5         | 0               | 0        | 0        | 0        | 0                            | 5         | 0        | 5         | 10         |
| 11:30 AM            | 8                            | 0        | 0        | 8         | 0               | 0        | 0        | 0        | 2                            | 2         | 0        | 4         | 12         |
| <b>Total Volume</b> | <b>23</b>                    | <b>2</b> | <b>0</b> | <b>25</b> | <b>0</b>        | <b>2</b> | <b>0</b> | <b>2</b> | <b>2</b>                     | <b>22</b> | <b>0</b> | <b>24</b> | <b>51</b>  |
| % Approach Total    | 92.0                         | 8.0      | 0.0      |           | 0.0             | 100.0    | 0.0      |          | 8.3                          | 91.7      | 0.0      |           |            |
| PHF                 | 0.719                        | 0.500    | 0.000    | 0.781     | 0.000           | 0.250    | 0.000    | 0.250    | 0.250                        | 0.688     | 0.000    | 0.750     | 0.708      |
| Entering Leg        | 23                           | 2        | 0        | 25        | 0               | 2        | 0        | 2        | 2                            | 22        | 0        | 24        | 51         |
| Exiting Leg         |                              |          |          | 22        |                 |          |          | 4        |                              |           |          | 25        | 51         |
| <b>Total</b>        |                              |          |          | <b>47</b> |                 |          |          | <b>6</b> |                              |           |          | <b>49</b> | <b>102</b> |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|---------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|         | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|         | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |
| 2:15 PM | 2                            | 0    | 0      | 2     | 0               | 1    | 0      | 1     | 0                            | 5    | 0      | 5     | 8     |
| 2:30 PM | 5                            | 0    | 0      | 5     | 0               | 2    | 0      | 2     | 2                            | 4    | 0      | 6     | 13    |
| 2:45 PM | 6                            | 0    | 0      | 6     | 0               | 2    | 0      | 2     | 0                            | 2    | 0      | 2     | 10    |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



**Single-Unit Trucks**

|                  | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                  | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 3:00 PM          | 2                            | 1     | 0      | 3     | 1               | 0     | 0      | 1     | 1                            | 2     | 0      | 3     | 7     |
| Total Volume     | 15                           | 1     | 0      | 16    | 1               | 5     | 0      | 6     | 3                            | 13    | 0      | 16    | 38    |
| % Approach Total | 93.8                         | 6.3   | 0.0    |       | 16.7            | 83.3  | 0.0    |       | 18.8                         | 81.3  | 0.0    |       |       |
| PHF              | 0.625                        | 0.250 | 0.000  | 0.667 | 0.250           | 0.625 | 0.000  | 0.750 | 0.375                        | 0.650 | 0.000  | 0.667 | 0.731 |
| Entering Leg     | 15                           | 1     | 0      | 16    | 1               | 5     | 0      | 6     | 3                            | 13    | 0      | 16    | 38    |
| Exiting Leg      |                              |       |        | 14    |                 |       |        | 4     |                              |       |        | 20    | 38    |
| Total            |                              |       |        | 30    |                 |       |        | 10    |                              |       |        | 36    | 76    |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|          | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|          | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |
| 6:00 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 6:15 AM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 6:30 AM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 3     |
| 6:45 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 2     |
| Total    | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 1                            | 3    | 0      | 4     | 6     |
| 7:00 AM  | 1                            | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 4     |
| 7:15 AM  | 0                            | 4    | 0      | 4     | 0               | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 6     |
| 7:30 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 2     |
| 7:45 AM  | 0                            | 1    | 0      | 1     | 0               | 1    | 0      | 1     | 1                            | 5    | 0      | 6     | 8     |
| Total    | 1                            | 6    | 0      | 7     | 0               | 1    | 0      | 1     | 5                            | 7    | 0      | 12    | 20    |
| 8:00 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 2                            | 2    | 0      | 4     | 4     |
| 8:15 AM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 8:30 AM  | 4                            | 0    | 0      | 4     | 0               | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 5     |
| 8:45 AM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 2     |
| Total    | 6                            | 0    | 0      | 6     | 0               | 0    | 0      | 0     | 3                            | 3    | 0      | 6     | 12    |
| 9:00 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| 9:15 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| 9:30 AM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 2     |
| 9:45 AM  | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 5     |
| Total    | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 7    | 0      | 7     | 9     |
| 10:00 AM | 2                            | 0    | 0      | 2     | 0               | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 4     |
| 10:15 AM | 0                            | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                            | 2    | 0      | 2     | 3     |
| 10:30 AM | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2     |
| 10:45 AM | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 4     |
| Total    | 6                            | 0    | 0      | 6     | 0               | 2    | 0      | 2     | 0                            | 5    | 0      | 5     | 13    |
| 11:00 AM | 3                            | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 4     |
| 11:15 AM | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 11:30 AM | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 11:45 AM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total    | 5                            | 0    | 0      | 5     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 6     |
| 12:00 PM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 2     |
| 12:15 PM | 3                            | 0    | 0      | 3     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 3     |
| 12:30 PM | 1                            | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 5     |
| 12:45 PM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 3     |
| Total    | 4                            | 1    | 0      | 5     | 0               | 0    | 0      | 0     | 0                            | 8    | 0      | 8     | 13    |
| 1:00 PM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 1:15 PM  | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 4     |
| 1:30 PM  | 0                            | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 2     |
| 1:45 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| Total    | 3                            | 0    | 0      | 3     | 0               | 1    | 0      | 1     | 1                            | 3    | 0      | 4     | 8     |
| 2:00 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 2:15 PM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 2     |
| 2:30 PM  | 1                            | 0    | 0      | 1     | 1               | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 2     |
| 2:45 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| Total    | 2                            | 0    | 0      | 2     | 1               | 0    | 0      | 1     | 0                            | 2    | 0      | 2     | 5     |
| 3:00 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 3:15 PM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 3:30 PM  | 0                            | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 2     |
| 3:45 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total    | 1                            | 0    | 0      | 1     | 0               | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 3     |
| 4:00 PM  | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 3     |
| 4:15 PM  | 1                            | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 3     |
| 4:30 PM  | 0                            | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 4:45 PM  | 1                            | 0    | 0      | 1     | 0               | 5    | 0      | 5     | 0                            | 1    | 0      | 1     | 7     |
| Total    | 2                            | 1    | 0      | 3     | 0               | 6    | 0      | 6     | 0                            | 5    | 0      | 5     | 14    |
| 5:00 PM  | 0                            | 0    | 0      | 0     | 0               | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 2     |
| 5:15 PM  | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|                   | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|-------------------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|                   | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|                   | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |
| 5:30 PM           | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 5:45 PM           | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total             | 1                            | 0    | 0      | 1     | 0               | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 3     |
| 6:00 PM           | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 6:15 PM           | 0                            | 1    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 6:30 PM           | 0                            | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                            | 2    | 0      | 2     | 3     |
| 6:45 PM           | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total             | 0                            | 1    | 0      | 1     | 0               | 1    | 0      | 1     | 0                            | 2    | 0      | 2     | 4     |
| 7:00 PM           | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 7:15 PM           | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 7:30 PM           | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 7:45 PM           | 1                            | 0    | 0      | 1     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| Total             | 2                            | 0    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2     |
| Grand Total       | 37                           | 9    | 0      | 46    | 1               | 14   | 0      | 15    | 10                           | 47   | 0      | 57    | 118   |
| Approach %        | 80.4                         | 19.6 | 0.0    |       | 6.7             | 93.3 | 0.0    |       | 17.5                         | 82.5 | 0.0    |       |       |
| Total %           | 31.4                         | 7.6  | 0.0    | 39.0  | 0.8             | 11.9 | 0.0    | 12.7  | 8.5                          | 39.8 | 0.0    | 48.3  |       |
| Exiting Leg Total | 48                           |      |        |       | 19              |      |        |       | 51                           |      |        |       | 118   |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                  | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                  | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 7:00 AM          | 1                            | 1     | 0      | 2     | 0               | 0     | 0      | 0     | 1                            | 1     | 0      | 2     | 4     |
| 7:15 AM          | 0                            | 4     | 0      | 4     | 0               | 0     | 0      | 0     | 1                            | 1     | 0      | 2     | 6     |
| 7:30 AM          | 0                            | 0     | 0      | 0     | 0               | 0     | 0      | 0     | 2                            | 0     | 0      | 2     | 2     |
| 7:45 AM          | 0                            | 1     | 0      | 1     | 0               | 1     | 0      | 1     | 1                            | 5     | 0      | 6     | 8     |
| Total Volume     | 1                            | 6     | 0      | 7     | 0               | 1     | 0      | 1     | 5                            | 7     | 0      | 12    | 20    |
| % Approach Total | 14.3                         | 85.7  | 0.0    |       | 0.0             | 100.0 | 0.0    |       | 41.7                         | 58.3  | 0.0    |       |       |
| PHF              | 0.250                        | 0.375 | 0.000  | 0.438 | 0.000           | 0.250 | 0.000  | 0.250 | 0.625                        | 0.350 | 0.000  | 0.500 | 0.625 |
| Entering Leg     | 1                            | 6     | 0      | 7     | 0               | 1     | 0      | 1     | 5                            | 7     | 0      | 12    | 20    |
| Exiting Leg      | 7                            |       |        |       | 11              |       |        |       | 2                            |       |        |       | 20    |
| Total            | 14                           |       |        |       | 12              |       |        |       | 14                           |       |        |       | 40    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                  | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 10:00 AM         | 2                            | 0     | 0      | 2     | 0               | 1     | 0      | 1     | 0                            | 1     | 0      | 1     | 4     |
| 10:15 AM         | 0                            | 0     | 0      | 0     | 0               | 1     | 0      | 1     | 0                            | 2     | 0      | 2     | 3     |
| 10:30 AM         | 2                            | 0     | 0      | 2     | 0               | 0     | 0      | 0     | 0                            | 0     | 0      | 0     | 2     |
| 10:45 AM         | 2                            | 0     | 0      | 2     | 0               | 0     | 0      | 0     | 0                            | 2     | 0      | 2     | 4     |
| Total Volume     | 6                            | 0     | 0      | 6     | 0               | 2     | 0      | 2     | 0                            | 5     | 0      | 5     | 13    |
| % Approach Total | 100.0                        | 0.0   | 0.0    |       | 0.0             | 100.0 | 0.0    |       | 0.0                          | 100.0 | 0.0    |       |       |
| PHF              | 0.750                        | 0.000 | 0.000  | 0.750 | 0.000           | 0.500 | 0.000  | 0.500 | 0.000                        | 0.625 | 0.000  | 0.625 | 0.813 |
| Entering Leg     | 6                            | 0     | 0      | 6     | 0               | 2     | 0      | 2     | 0                            | 5     | 0      | 5     | 13    |
| Exiting Leg      | 5                            |       |        |       | 0               |       |        |       | 8                            |       |        |       | 13    |
| Total            | 11                           |       |        |       | 2               |       |        |       | 13                           |       |        |       | 26    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Washington Street (Route 16) |      |        |       | Highland Street |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|---------|------------------------------|------|--------|-------|-----------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|         | from East                    |      |        |       | from South      |      |        |       | from West                    |      |        |       |       |
|         | Thru                         | Left | U-Turn | Total | Right           | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total |       |
| 4:00 PM | 0                            | 0    | 0      | 0     | 0               | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 3     |
| 4:15 PM | 1                            | 1    | 0      | 2     | 0               | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 3     |
| 4:30 PM | 0                            | 0    | 0      | 0     | 0               | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 Office: 508-875-0100 Fax: 508-875-0118

Class:

**Articulated Trucks**

|                  | Washington Street (Route 16) |       |        |       | Highland Street |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|------------------------------|-------|--------|-------|-----------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from East                    |       |        |       | from South      |       |        |       | from West                    |       |        |       |       |
|                  | Thru                         | Left  | U-Turn | Total | Right           | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total |       |
| 4:45 PM          | 1                            | 0     | 0      | 1     | 0               | 5     | 0      | 5     | 0                            | 1     | 0      | 1     | 7     |
| Total Volume     | 2                            | 1     | 0      | 3     | 0               | 6     | 0      | 6     | 0                            | 5     | 0      | 5     | 14    |
| % Approach Total | 66.7                         | 33.3  | 0.0    |       | 0.0             | 100.0 | 0.0    |       | 0.0                          | 100.0 | 0.0    |       |       |
| PHF              | 0.500                        | 0.250 | 0.000  | 0.375 | 0.000           | 0.300 | 0.000  | 0.300 | 0.000                        | 0.417 | 0.000  | 0.417 | 0.500 |
| Entering Leg     | 2                            | 1     | 0      | 3     | 0               | 6     | 0      | 6     | 0                            | 5     | 0      | 5     | 14    |
| Exiting Leg      |                              |       |        | 5     |                 |       |        | 1     |                              |       |        | 8     | 14    |
| Total            |                              |       |        | 8     |                 |       |        | 7     |                              |       |        | 13    | 28    |

PDI File #: 218212 C  
 Location: S: Highland Street  
 Location: E: Washington St (Rt 16) W: Washington St (Rt 16)  
 City, State: West Newton, MA  
 Client: BETA/J. Centracchio  
 Site Code: 5472-14  
 Count Date: Tuesday, October 19, 2021  
 Start Time: 6:00 AM  
 End Time: 8:00 PM



**Bicycles (on Roadway and Crosswalks)**

|          | Washington Street (Route 16) |      |        |       |       |       | Highland Street |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |
|----------|------------------------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|
|          | from East                    |      |        |       |       |       | from South      |      |        |       |       |       | from West                    |      |        |       |       |       |       |
|          | Thru                         | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 6:00 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 6:15 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 0     | 1     |
| 6:30 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 6:45 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| Total    | 0                            | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                            | 1    | 0      | 0     | 0     | 0     | 2     |
| 7:00 AM  | 1                            | 0    | 0      | 0     | 0     | 1     | 1               | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 7:15 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 1    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:30 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 1    | 0      | 0     | 0     | 1     | 2     |
| 7:45 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 1     | 1     |
| Total    | 1                            | 0    | 0      | 0     | 0     | 1     | 1               | 1    | 0      | 0     | 1     | 3     | 0                            | 2    | 0      | 0     | 0     | 2     | 6     |
| 8:00 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 2    | 0      | 0     | 0     | 2     | 2     |
| 8:15 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 1    | 0      | 0     | 0     | 1     | 1                            | 1    | 0      | 0     | 0     | 2     | 3     |
| 8:30 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 2    | 0      | 0     | 0     | 2     | 2     |
| 8:45 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 1    | 0      | 0     | 0     | 1     | 0                            | 1    | 0      | 0     | 0     | 1     | 2     |
| Total    | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 2    | 0      | 0     | 0     | 2     | 1                            | 6    | 0      | 0     | 0     | 7     | 9     |
| 9:00 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 9:15 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 1               | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 9:30 AM  | 1                            | 0    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 9:45 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| Total    | 1                            | 0    | 0      | 0     | 0     | 1     | 1               | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 10:00 AM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 10:15 AM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 10:30 AM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 10:45 AM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 1     | 1     |
| Total    | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 1     | 1     |
| 11:00 AM | 0                            | 0    | 0      | 1     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 1     | 2     |
| 11:15 AM | 0                            | 1    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 11:30 AM | 1                            | 0    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 11:45 AM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 1     | 1     |
| Total    | 1                            | 1    | 0      | 1     | 0     | 3     | 0               | 0    | 0      | 0     | 0     | 0     | 1                            | 1    | 0      | 0     | 0     | 2     | 5     |
| 12:00 PM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 12:15 PM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 12:30 PM | 2                            | 0    | 0      | 0     | 0     | 2     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 1     | 3     |
| 12:45 PM | 1                            | 0    | 0      | 0     | 0     | 1     | 0               | 1    | 0      | 0     | 0     | 1     | 1                            | 0    | 0      | 0     | 0     | 1     | 3     |
| Total    | 3                            | 0    | 0      | 0     | 0     | 3     | 0               | 1    | 0      | 1     | 0     | 2     | 1                            | 1    | 0      | 0     | 0     | 2     | 7     |
| 1:00 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 1:15 PM  | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 1:30 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 1     | 1     |
| 1:45 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| Total    | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 1     | 2     |
| 2:00 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 2:15 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1     | 0     | 1     | 1     |
| 2:30 PM  | 1                            | 0    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 3    | 0      | 0     | 0     | 3     | 4     |
| 2:45 PM  | 0                            | 1    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 1     | 2     |
| Total    | 1                            | 1    | 0      | 0     | 0     | 2     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 4    | 0      | 1     | 0     | 5     | 7     |
| 3:00 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 3:15 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 3:30 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 2    | 0      | 0     | 0     | 2     | 2     |
| 3:45 PM  | 1                            | 0    | 0      | 2     | 0     | 3     | 0               | 1    | 0      | 0     | 0     | 1     | 0                            | 3    | 0      | 0     | 0     | 3     | 7     |
| Total    | 1                            | 0    | 0      | 2     | 0     | 3     | 0               | 1    | 0      | 0     | 0     | 1     | 0                            | 5    | 0      | 0     | 0     | 5     | 9     |
| 4:00 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 2     | 0     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 4:15 PM  | 1                            | 0    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 4:30 PM  | 1                            | 0    | 0      | 0     | 0     | 1     | 0               | 1    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 4:45 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| Total    | 2                            | 0    | 0      | 0     | 0     | 2     | 0               | 1    | 0      | 3     | 1     | 5     | 0                            | 0    | 0      | 0     | 0     | 0     | 7     |
| 5:00 PM  | 0                            | 0    | 0      | 1     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 5:15 PM  | 1                            | 0    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Bicycles (on Roadway and Crosswalks)**

|                   | Washington Street (Route 16) |      |        |       |       |       | Highland Street |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |
|-------------------|------------------------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|
|                   | from East                    |      |        |       |       |       | from South      |      |        |       |       |       | from West                    |      |        |       |       |       |       |
|                   | Thru                         | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 5:30 PM           | 1                            | 0    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 5:45 PM           | 1                            | 0    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 0     | 1     |
| Total             | 3                            | 0    | 0      | 1     | 0     | 4     | 0               | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 0     | 5     |
| 6:00 PM           | 0                            | 0    | 0      | 1     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 2    | 0      | 0     | 0     | 0     | 2     |
| 6:15 PM           | 1                            | 0    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 0     | 1     |
| 6:30 PM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 6:45 PM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| Total             | 1                            | 0    | 0      | 1     | 0     | 2     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 3    | 0      | 0     | 0     | 0     | 6     |
| 7:00 PM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 7:15 PM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:30 PM           | 0                            | 1    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:45 PM           | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| Total             | 0                            | 1    | 0      | 0     | 0     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 0     | 2     |
| Grand Total       | 14                           | 3    | 0      | 5     | 1     | 23    | 3               | 6    | 0      | 4     | 3     | 16    | 5                            | 25   | 0      | 1     | 0     | 31    | 70    |
| Approach %        | 60.9                         | 13.0 | 0.0    | 21.7  | 4.3   |       | 18.8            | 37.5 | 0.0    | 25.0  | 18.8  |       | 16.1                         | 80.6 | 0.0    | 3.2   | 0.0   |       |       |
| Total %           | 20.0                         | 4.3  | 0.0    | 7.1   | 1.4   | 32.9  | 4.3             | 8.6  | 0.0    | 5.7   | 4.3   | 22.9  | 7.1                          | 35.7 | 0.0    | 1.4   | 0.0   | 44.3  |       |
| Exiting Leg Total | 34                           |      |        |       |       |       | 15              |      |        |       |       |       | 21                           |      |        |       |       |       | 70    |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                  | Washington Street (Route 16) |       |        |       |       |       | Highland Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|------------------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from East                    |       |        |       |       |       | from South      |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 8:00 AM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 2     | 0      | 0     | 0     | 0     | 2     |
| 8:15 AM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 1     | 0      | 0     | 0     | 1     | 1                            | 1     | 0      | 0     | 0     | 0     | 3     |
| 8:30 AM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 2     | 0      | 0     | 0     | 0     | 2     |
| 8:45 AM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 1     | 0      | 0     | 0     | 1     | 0                            | 1     | 0      | 0     | 0     | 0     | 2     |
| Total Volume     | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 2     | 0      | 0     | 0     | 2     | 1                            | 6     | 0      | 0     | 0     | 0     | 9     |
| % Approach Total | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   |       | 0.0             | 100.0 | 0.0    | 0.0   | 0.0   |       | 14.3                         | 85.7  | 0.0    | 0.0   | 0.0   |       |       |
| PHF              | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000           | 0.500 | 0.000  | 0.000 | 0.000 | 0.500 | 0.250                        | 0.750 | 0.000  | 0.000 | 0.000 | 0.875 | 0.750 |
| Entering Leg     | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 2     | 0      | 0     | 0     | 2     | 1                            | 6     | 0      | 0     | 0     | 0     | 9     |
| Exiting Leg      | 6                            |       |        |       |       |       | 1               |       |        |       |       |       | 2                            |       |        |       |       |       | 9     |
| Total            | 6                            |       |        |       |       |       | 3               |       |        |       |       |       | 9                            |       |        |       |       |       | 18    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Washington Street (Route 16) |       |        |       |       |       | Highland Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|------------------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from East                    |       |        |       |       |       | from South      |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 12:00 PM         | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     |
| 12:15 PM         | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 1     | 0     | 1     | 0                            | 0     | 0      | 0     | 0     | 0     | 1     |
| 12:30 PM         | 2                            | 0     | 0      | 0     | 0     | 2     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 1     | 0      | 0     | 0     | 0     | 3     |
| 12:45 PM         | 1                            | 0     | 0      | 0     | 0     | 1     | 0               | 1     | 0      | 0     | 0     | 1     | 1                            | 0     | 0      | 0     | 0     | 0     | 3     |
| Total Volume     | 3                            | 0     | 0      | 0     | 0     | 3     | 0               | 1     | 0      | 1     | 0     | 2     | 1                            | 1     | 0      | 0     | 0     | 0     | 7     |
| % Approach Total | 100.0                        | 0.0   | 0.0    | 0.0   | 0.0   |       | 0.0             | 50.0  | 0.0    | 50.0  | 0.0   |       | 50.0                         | 50.0  | 0.0    | 0.0   | 0.0   |       |       |
| PHF              | 0.375                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.375 | 0.000           | 0.250 | 0.000  | 0.250 | 0.000 | 0.500 | 0.250                        | 0.250 | 0.000  | 0.000 | 0.000 | 0.500 | 0.583 |
| Entering Leg     | 3                            | 0     | 0      | 0     | 0     | 3     | 0               | 1     | 0      | 1     | 0     | 2     | 1                            | 1     | 0      | 0     | 0     | 0     | 7     |
| Exiting Leg      | 1                            |       |        |       |       |       | 2               |       |        |       |       |       | 4                            |       |        |       |       |       | 7     |
| Total            | 4                            |       |        |       |       |       | 4               |       |        |       |       |       | 6                            |       |        |       |       |       | 14    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Washington Street (Route 16) |      |        |       |       |       | Highland Street |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |
|---------|------------------------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|
|         | from East                    |      |        |       |       |       | from South      |      |        |       |       |       | from West                    |      |        |       |       |       |       |
|         | Thru                         | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 3:30 PM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 2    | 0      | 0     | 0     | 0     | 2     |
| 3:45 PM | 1                            | 0    | 0      | 2     | 0     | 3     | 0               | 1    | 0      | 0     | 0     | 1     | 0                            | 3    | 0      | 0     | 0     | 0     | 7     |
| 4:00 PM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 2     | 0     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |



PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



**Bicycles (on Roadway and Crosswalks)**

|                  | Washington Street (Route 16) |       |        |       |       |       | Highland Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|------------------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from East                    |       |        |       |       |       | from South      |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 4:15 PM          | 1                            | 0     | 0      | 0     | 0     | 1     | 0               | 0     | 0      | 1     | 0     | 1     | 0                            | 0     | 0      | 0     | 0     | 0     | 2     |
| Total Volume     | 2                            | 0     | 0      | 2     | 0     | 4     | 0               | 1     | 0      | 3     | 0     | 4     | 0                            | 5     | 0      | 0     | 0     | 5     | 13    |
| % Approach Total | 50.0                         | 0.0   | 0.0    | 50.0  | 0.0   |       | 0.0             | 25.0  | 0.0    | 75.0  | 0.0   |       | 0.0                          | 100.0 | 0.0    | 0.0   | 0.0   |       |       |
| PHF              | 0.500                        | 0.000 | 0.000  | 0.250 | 0.000 | 0.333 | 0.000           | 0.250 | 0.000  | 0.375 | 0.000 | 0.500 | 0.000                        | 0.417 | 0.000  | 0.000 | 0.000 | 0.417 | 0.464 |
| Entering Leg     | 2                            | 0     | 0      | 2     | 0     | 4     | 0               | 1     | 0      | 3     | 0     | 4     | 0                            | 5     | 0      | 0     | 0     | 5     | 13    |
| Exiting Leg      |                              |       |        |       |       | 7     |                 |       |        |       |       | 3     |                              |       |        |       |       | 3     | 13    |
| Total            |                              |       |        |       |       | 11    |                 |       |        |       |       | 7     |                              |       |        |       |       | 8     | 26    |

PDI File #: 218212 C  
 Location: S: Highland Street  
 Location: E: Washington St (Rt 16) W: Washington St (Rt 16)  
 City, State: West Newton, MA  
 Client: BETA/J. Centracchio  
 Site Code: 5472-14  
 Count Date: Tuesday, October 19, 2021  
 Start Time: 6:00 AM  
 End Time: 8:00 PM  
 Class:



**Pedestrians**

|          | Washington Street (Route 16) |      |        |       |       |       | Highland Street |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |
|----------|------------------------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|
|          | from East                    |      |        |       |       |       | from South      |      |        |       |       |       | from West                    |      |        |       |       |       |       |
|          | Thru                         | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 6:00 AM  | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 6:15 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 6:30 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 6:45 AM  | 0                            | 0    | 0      | 2     | 0     | 2     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| Total    | 0                            | 0    | 0      | 2     | 1     | 3     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 4     |
| 7:00 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:15 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:30 AM  | 0                            | 0    | 0      | 1     | 0     | 1     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 7:45 AM  | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| Total    | 0                            | 0    | 0      | 1     | 1     | 2     | 0               | 0    | 0      | 3     | 2     | 5     | 0                            | 0    | 0      | 0     | 0     | 0     | 7     |
| 8:00 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 8:15 AM  | 0                            | 0    | 0      | 1     | 0     | 1     | 0               | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| 8:30 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 8:45 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| Total    | 0                            | 0    | 0      | 1     | 0     | 1     | 0               | 0    | 0      | 1     | 3     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 5     |
| 9:00 AM  | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| 9:15 AM  | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 9:30 AM  | 0                            | 0    | 0      | 1     | 1     | 2     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 9:45 AM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| Total    | 0                            | 0    | 0      | 1     | 3     | 4     | 0               | 0    | 0      | 1     | 3     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 8     |
| 10:00 AM | 0                            | 0    | 0      | 1     | 0     | 1     | 0               | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| 10:15 AM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 10:30 AM | 0                            | 0    | 0      | 1     | 1     | 2     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 10:45 AM | 0                            | 0    | 0      | 2     | 0     | 2     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| Total    | 0                            | 0    | 0      | 4     | 1     | 5     | 0               | 0    | 0      | 2     | 2     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 9     |
| 11:00 AM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 11:15 AM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 11:30 AM | 0                            | 0    | 0      | 2     | 0     | 2     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 11:45 AM | 0                            | 0    | 0      | 0     | 2     | 2     | 0               | 0    | 0      | 4     | 0     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 6     |
| Total    | 0                            | 0    | 0      | 2     | 2     | 4     | 0               | 0    | 0      | 4     | 0     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 8     |
| 12:00 PM | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 12:15 PM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 2     | 1     | 3     | 0                            | 0    | 0      | 0     | 1     | 1     | 4     |
| 12:30 PM | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 12:45 PM | 0                            | 0    | 0      | 1     | 0     | 1     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| Total    | 0                            | 0    | 0      | 1     | 1     | 2     | 0               | 0    | 0      | 3     | 1     | 4     | 0                            | 0    | 0      | 0     | 1     | 1     | 7     |
| 1:00 PM  | 0                            | 0    | 0      | 2     | 0     | 2     | 0               | 0    | 0      | 1     | 3     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 6     |
| 1:15 PM  | 0                            | 0    | 0      | 0     | 3     | 3     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 4     |
| 1:30 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 1:45 PM  | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| Total    | 0                            | 0    | 0      | 2     | 4     | 6     | 0               | 0    | 0      | 3     | 3     | 6     | 0                            | 0    | 0      | 0     | 0     | 0     | 12    |
| 2:00 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 2:15 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 2:30 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 2:45 PM  | 0                            | 0    | 0      | 2     | 1     | 3     | 0               | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 1     | 0     | 1     | 5     |
| Total    | 0                            | 0    | 0      | 2     | 1     | 3     | 0               | 0    | 0      | 3     | 0     | 3     | 0                            | 0    | 0      | 1     | 0     | 1     | 7     |
| 3:00 PM  | 0                            | 0    | 0      | 1     | 4     | 5     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1     | 0     | 1     | 6     |
| 3:15 PM  | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0      | 0     | 1     | 1     | 4     |
| 3:30 PM  | 0                            | 0    | 0      | 0     | 2     | 2     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| 3:45 PM  | 0                            | 0    | 0      | 2     | 0     | 2     | 0               | 0    | 0      | 4     | 0     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 6     |
| Total    | 0                            | 0    | 0      | 3     | 7     | 10    | 0               | 0    | 0      | 4     | 3     | 7     | 0                            | 0    | 0      | 1     | 1     | 2     | 19    |
| 4:00 PM  | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 1     | 1     | 3     |
| 4:15 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 4:30 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 2     | 1     | 3     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| 4:45 PM  | 0                            | 0    | 0      | 0     | 0     | 0     | 0               | 0    | 0      | 2     | 1     | 3     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| Total    | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 4     | 3     | 7     | 0                            | 0    | 0      | 0     | 1     | 1     | 9     |
| 5:00 PM  | 0                            | 0    | 0      | 0     | 3     | 3     | 0               | 0    | 0      | 0     | 4     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 7     |
| 5:15 PM  | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |

PDI File #: 218212 C  
 Location: S: Highland Street  
 Location: E: Washington St (Rt 16) W: Washington St (Rt 16)  
 City, State: West Newton, MA  
 Client: BETA/J. Centracchio  
 Site Code: 5472-14  
 Count Date: Tuesday, October 19, 2021  
 Start Time: 6:00 AM  
 End Time: 8:00 PM  
 Class:



**Pedestrians**

|                   | Washington Street (Route 16) |      |        |        |        |        | Highland Street |      |        |        |        |       | Washington Street (Route 16) |      |        |        |        |        | Total |
|-------------------|------------------------------|------|--------|--------|--------|--------|-----------------|------|--------|--------|--------|-------|------------------------------|------|--------|--------|--------|--------|-------|
|                   | from East                    |      |        |        |        |        | from South      |      |        |        |        |       | from West                    |      |        |        |        |        |       |
|                   | Thru                         | Left | U-Turn | CW-SB  | CW-NB  | Total  | Right           | Left | U-Turn | CW-WB  | CW-EB  | Total | Right                        | Thru | U-Turn | CW-NB  | CW-SB  | Total  |       |
| 5:30 PM           | 0                            | 0    | 0      | 1      | 0      | 1      | 0               | 0    | 0      | 1      | 0      | 1     | 0                            | 0    | 0      | 0      | 0      | 0      | 2     |
| 5:45 PM           | 0                            | 0    | 0      | 1      | 0      | 1      | 0               | 0    | 0      | 1      | 4      | 5     | 0                            | 0    | 0      | 1      | 0      | 1      | 7     |
| <b>Total</b>      | 0                            | 0    | 0      | 2      | 4      | 6      | 0               | 0    | 0      | 2      | 9      | 11    | 0                            | 0    | 0      | 1      | 0      | 1      | 18    |
| 6:00 PM           | 0                            | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 1      | 1     | 0                            | 0    | 0      | 0      | 0      | 0      | 1     |
| 6:15 PM           | 0                            | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 1      | 0      | 1     | 0                            | 0    | 0      | 0      | 0      | 0      | 1     |
| 6:30 PM           | 0                            | 0    | 0      | 0      | 2      | 2      | 0               | 0    | 0      | 0      | 0      | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 2     |
| 6:45 PM           | 0                            | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 1      | 1     | 0                            | 0    | 0      | 0      | 0      | 0      | 1     |
| <b>Total</b>      | 0                            | 0    | 0      | 0      | 2      | 2      | 0               | 0    | 0      | 1      | 2      | 3     | 0                            | 0    | 0      | 0      | 0      | 0      | 5     |
| 7:00 PM           | 0                            | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 0     |
| 7:15 PM           | 0                            | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 0     |
| 7:30 PM           | 0                            | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 0     |
| 7:45 PM           | 0                            | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 0     |
| <b>Total</b>      | 0                            | 0    | 0      | 0      | 0      | 0      | 0               | 0    | 0      | 0      | 0      | 0     | 0                            | 0    | 0      | 0      | 0      | 0      | 0     |
| Grand Total       | 0                            | 0    | 0      | 21     | 28     | 49     | 0               | 0    | 0      | 32     | 31     | 63    | 0                            | 0    | 0      | 3      | 3      | 6      | 118   |
| Approach %        | 0                            | 0    | 0      | 42.857 | 57.143 |        | 0               | 0    | 0      | 50.794 | 49.206 |       | 0                            | 0    | 0      | 50     | 50     |        |       |
| Total %           | 0                            | 0    | 0      | 17.797 | 23.729 | 41.525 | 0               | 0    | 0      | 27.119 | 26.271 | 53.39 | 0                            | 0    | 0      | 2.5424 | 2.5424 | 5.0847 |       |
| Exiting Leg Total | 49                           |      |        |        |        |        | 63              |      |        |        |        |       | 6                            |      |        |        |        |        | 118   |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                  | Washington Street (Route 16) |       |        |       |       |       | Highland Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|------------------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from East                    |       |        |       |       |       | from South      |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 7:30 AM          | 0                            | 0     | 0      | 1     | 0     | 1     | 0               | 0     | 0      | 0     | 1     | 1     | 0                            | 0     | 0      | 0     | 0     | 0     | 2     |
| 7:45 AM          | 0                            | 0     | 0      | 0     | 1     | 1     | 0               | 0     | 0      | 1     | 1     | 2     | 0                            | 0     | 0      | 0     | 0     | 0     | 3     |
| 8:00 AM          | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     |
| 8:15 AM          | 0                            | 0     | 0      | 1     | 0     | 1     | 0               | 0     | 0      | 1     | 1     | 2     | 0                            | 0     | 0      | 0     | 0     | 0     | 3     |
| Total Volume     | 0                            | 0     | 0      | 2     | 1     | 3     | 0               | 0     | 0      | 2     | 3     | 5     | 0                            | 0     | 0      | 0     | 0     | 0     | 8     |
| % Approach Total | 0.0                          | 0.0   | 0.0    | 66.7  | 33.3  |       | 0.0             | 0.0   | 0.0    | 40.0  | 60.0  |       | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   |       |
| PHF              | 0.000                        | 0.000 | 0.000  | 0.500 | 0.250 | 0.750 | 0.000           | 0.000 | 0.000  | 0.500 | 0.750 | 0.625 | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.667 |
| Entering Leg     | 0                            | 0     | 0      | 2     | 1     | 3     | 0               | 0     | 0      | 2     | 3     | 5     | 0                            | 0     | 0      | 0     | 0     | 0     | 8     |
| Exiting Leg      | 3                            |       |        |       |       |       | 5               |       |        |       |       |       | 0                            |       |        |       |       |       | 8     |
| <b>Total</b>     | 6                            |       |        |       |       |       | 10              |       |        |       |       |       | 0                            |       |        |       |       |       | 16    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Washington Street (Route 16) |       |        |       |       |       | Highland Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|------------------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from East                    |       |        |       |       |       | from South      |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 11:30 AM         | 0                            | 0     | 0      | 2     | 0     | 2     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 2     |
| 11:45 AM         | 0                            | 0     | 0      | 0     | 2     | 2     | 0               | 0     | 0      | 4     | 0     | 4     | 0                            | 0     | 0      | 0     | 0     | 0     | 6     |
| 12:00 PM         | 0                            | 0     | 0      | 0     | 1     | 1     | 0               | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 1     |
| 12:15 PM         | 0                            | 0     | 0      | 0     | 0     | 0     | 0               | 0     | 0      | 2     | 1     | 3     | 0                            | 0     | 0      | 0     | 1     | 1     | 4     |
| Total Volume     | 0                            | 0     | 0      | 2     | 3     | 5     | 0               | 0     | 0      | 6     | 1     | 7     | 0                            | 0     | 0      | 0     | 1     | 1     | 13    |
| % Approach Total | 0.0                          | 0.0   | 0.0    | 40.0  | 60.0  |       | 0.0             | 0.0   | 0.0    | 85.7  | 14.3  |       | 0.0                          | 0.0   | 0.0    | 0.0   | 100.0 |       |       |
| PHF              | 0.000                        | 0.000 | 0.000  | 0.250 | 0.375 | 0.625 | 0.000           | 0.000 | 0.000  | 0.375 | 0.250 | 0.438 | 0.000                        | 0.000 | 0.000  | 0.000 | 0.250 | 0.250 | 0.542 |
| Entering Leg     | 0                            | 0     | 0      | 2     | 3     | 5     | 0               | 0     | 0      | 6     | 1     | 7     | 0                            | 0     | 0      | 0     | 1     | 1     | 13    |
| Exiting Leg      | 5                            |       |        |       |       |       | 7               |       |        |       |       |       | 1                            |       |        |       |       |       | 13    |
| <b>Total</b>     | 10                           |       |        |       |       |       | 14              |       |        |       |       |       | 2                            |       |        |       |       |       | 26    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Washington Street (Route 16) |      |        |       |       |       | Highland Street |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |
|---------|------------------------------|------|--------|-------|-------|-------|-----------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|
|         | from East                    |      |        |       |       |       | from South      |      |        |       |       |       | from West                    |      |        |       |       |       |       |
|         | Thru                         | Left | U-Turn | CW-SB | CW-NB | Total | Right           | Left | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru | U-Turn | CW-NB | CW-SB | Total |       |
| 3:00 PM | 0                            | 0    | 0      | 1     | 4     | 5     | 0               | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 1     | 0     | 6     |
| 3:15 PM | 0                            | 0    | 0      | 0     | 1     | 1     | 0               | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0      | 0     | 1     | 1     | 4     |
| 3:30 PM | 0                            | 0    | 0      | 0     | 2     | 2     | 0               | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |

PDI File #: **218212 C**  
 Location: **S: Highland Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Pedestrians**

|                  | Washington Street (Route 16) |       |        |       |       |       | Highland Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|------------------------------|-------|--------|-------|-------|-------|-----------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from East                    |       |        |       |       |       | from South      |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Thru                         | Left  | U-Turn | CW-SB | CW-NB | Total | Right           | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | U-Turn | CW-NB | CW-SB | Total |       |
| 3:45 PM          | 0                            | 0     | 0      | 2     | 0     | 2     | 0               | 0     | 0      | 4     | 0     | 4     | 0                            | 0     | 0      | 0     | 0     | 0     | 6     |
| Total Volume     | 0                            | 0     | 0      | 3     | 7     | 10    | 0               | 0     | 0      | 4     | 3     | 7     | 0                            | 0     | 0      | 1     | 1     | 2     | 19    |
| % Approach Total | 0.0                          | 0.0   | 0.0    | 30.0  | 70.0  |       | 0.0             | 0.0   | 0.0    | 57.1  | 42.9  |       | 0.0                          | 0.0   | 0.0    | 50.0  | 50.0  |       |       |
| PHF              | 0.000                        | 0.000 | 0.000  | 0.375 | 0.438 | 0.500 | 0.000           | 0.000 | 0.000  | 0.250 | 0.375 | 0.438 | 0.000                        | 0.000 | 0.000  | 0.250 | 0.250 | 0.500 | 0.792 |
| Entering Leg     | 0                            | 0     | 0      | 3     | 7     | 10    | 0               | 0     | 0      | 4     | 3     | 7     | 0                            | 0     | 0      | 1     | 1     | 2     | 19    |
| Exiting Leg      |                              |       |        |       |       | 10    |                 |       |        |       |       | 7     |                              |       |        |       |       | 2     | 19    |
| Total            |                              |       |        |       |       | 20    |                 |       |        |       |       | 14    |                              |       |        |       |       | 4     | 38    |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|          | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|          | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 6:00 AM  | 8             | 8    | 0      | 16    | 9                            | 31   | 0      | 40    | 41                           | 11   | 0      | 52    | 108   |
| 6:15 AM  | 17            | 17   | 0      | 34    | 6                            | 43   | 0      | 49    | 45                           | 15   | 0      | 60    | 143   |
| 6:30 AM  | 23            | 37   | 0      | 60    | 6                            | 64   | 0      | 70    | 61                           | 17   | 0      | 78    | 208   |
| 6:45 AM  | 19            | 62   | 0      | 81    | 13                           | 59   | 0      | 72    | 74                           | 23   | 0      | 97    | 250   |
| Total    | 67            | 124  | 0      | 191   | 34                           | 197  | 0      | 231   | 221                          | 66   | 0      | 287   | 709   |
| 7:00 AM  | 13            | 55   | 0      | 68    | 11                           | 55   | 0      | 66    | 69                           | 15   | 0      | 84    | 218   |
| 7:15 AM  | 20            | 86   | 0      | 106   | 14                           | 80   | 0      | 94    | 107                          | 26   | 0      | 133   | 333   |
| 7:30 AM  | 19            | 105  | 0      | 124   | 27                           | 85   | 0      | 112   | 126                          | 32   | 0      | 158   | 394   |
| 7:45 AM  | 15            | 108  | 0      | 123   | 25                           | 116  | 0      | 141   | 136                          | 33   | 0      | 169   | 433   |
| Total    | 67            | 354  | 0      | 421   | 77                           | 336  | 0      | 413   | 438                          | 106  | 0      | 544   | 1378  |
| 8:00 AM  | 13            | 94   | 0      | 107   | 38                           | 98   | 0      | 136   | 122                          | 9    | 0      | 131   | 374   |
| 8:15 AM  | 15            | 117  | 0      | 132   | 24                           | 79   | 0      | 103   | 136                          | 21   | 0      | 157   | 392   |
| 8:30 AM  | 15            | 124  | 0      | 139   | 40                           | 107  | 0      | 147   | 106                          | 17   | 0      | 123   | 409   |
| 8:45 AM  | 10            | 80   | 0      | 90    | 36                           | 104  | 0      | 140   | 139                          | 20   | 0      | 159   | 389   |
| Total    | 53            | 415  | 0      | 468   | 138                          | 388  | 0      | 526   | 503                          | 67   | 0      | 570   | 1564  |
| 9:00 AM  | 13            | 58   | 0      | 71    | 40                           | 74   | 0      | 114   | 108                          | 34   | 0      | 142   | 327   |
| 9:15 AM  | 14            | 50   | 0      | 64    | 25                           | 95   | 0      | 120   | 101                          | 34   | 0      | 135   | 319   |
| 9:30 AM  | 16            | 54   | 0      | 70    | 23                           | 85   | 0      | 108   | 99                           | 24   | 0      | 123   | 301   |
| 9:45 AM  | 12            | 53   | 0      | 65    | 17                           | 74   | 0      | 91    | 117                          | 28   | 0      | 145   | 301   |
| Total    | 55            | 215  | 0      | 270   | 105                          | 328  | 0      | 433   | 425                          | 120  | 0      | 545   | 1248  |
| 10:00 AM | 9             | 36   | 0      | 45    | 22                           | 84   | 0      | 106   | 103                          | 25   | 0      | 128   | 279   |
| 10:15 AM | 9             | 36   | 0      | 45    | 26                           | 93   | 0      | 119   | 77                           | 24   | 0      | 101   | 265   |
| 10:30 AM | 18            | 42   | 0      | 60    | 22                           | 80   | 0      | 102   | 78                           | 22   | 0      | 100   | 262   |
| 10:45 AM | 13            | 38   | 0      | 51    | 28                           | 90   | 0      | 118   | 91                           | 22   | 0      | 113   | 282   |
| Total    | 49            | 152  | 0      | 201   | 98                           | 347  | 0      | 445   | 349                          | 93   | 0      | 442   | 1088  |
| 11:00 AM | 7             | 46   | 0      | 53    | 18                           | 95   | 0      | 113   | 80                           | 15   | 0      | 95    | 261   |
| 11:15 AM | 18            | 39   | 0      | 57    | 20                           | 84   | 0      | 104   | 93                           | 17   | 0      | 110   | 271   |
| 11:30 AM | 17            | 27   | 0      | 44    | 28                           | 76   | 0      | 104   | 84                           | 25   | 0      | 109   | 257   |
| 11:45 AM | 15            | 48   | 0      | 63    | 24                           | 86   | 0      | 110   | 79                           | 24   | 0      | 103   | 276   |
| Total    | 57            | 160  | 0      | 217   | 90                           | 341  | 0      | 431   | 336                          | 81   | 0      | 417   | 1065  |
| 12:00 PM | 15            | 51   | 0      | 66    | 35                           | 99   | 0      | 134   | 93                           | 24   | 0      | 117   | 317   |
| 12:15 PM | 20            | 53   | 0      | 73    | 37                           | 105  | 0      | 142   | 83                           | 35   | 1      | 119   | 334   |
| 12:30 PM | 17            | 43   | 0      | 60    | 29                           | 111  | 0      | 140   | 80                           | 22   | 0      | 102   | 302   |
| 12:45 PM | 19            | 45   | 0      | 64    | 40                           | 80   | 0      | 120   | 97                           | 28   | 0      | 125   | 309   |
| Total    | 71            | 192  | 0      | 263   | 141                          | 395  | 0      | 536   | 353                          | 109  | 1      | 463   | 1262  |
| 1:00 PM  | 15            | 67   | 0      | 82    | 29                           | 84   | 0      | 113   | 81                           | 19   | 1      | 101   | 296   |
| 1:15 PM  | 15            | 41   | 0      | 56    | 34                           | 90   | 0      | 124   | 89                           | 29   | 0      | 118   | 298   |
| 1:30 PM  | 24            | 45   | 0      | 69    | 31                           | 95   | 0      | 126   | 80                           | 32   | 0      | 112   | 307   |
| 1:45 PM  | 17            | 51   | 0      | 68    | 35                           | 102  | 0      | 137   | 90                           | 34   | 0      | 124   | 329   |
| Total    | 71            | 204  | 0      | 275   | 129                          | 371  | 0      | 500   | 340                          | 114  | 1      | 455   | 1230  |
| 2:00 PM  | 25            | 48   | 0      | 73    | 18                           | 118  | 0      | 136   | 94                           | 18   | 0      | 112   | 321   |
| 2:15 PM  | 19            | 57   | 0      | 76    | 33                           | 117  | 0      | 150   | 98                           | 36   | 0      | 134   | 360   |
| 2:30 PM  | 36            | 79   | 0      | 115   | 57                           | 106  | 0      | 163   | 79                           | 28   | 0      | 107   | 385   |
| 2:45 PM  | 18            | 49   | 0      | 67    | 53                           | 133  | 0      | 186   | 83                           | 21   | 0      | 104   | 357   |
| Total    | 98            | 233  | 0      | 331   | 161                          | 474  | 0      | 635   | 354                          | 103  | 0      | 457   | 1423  |
| 3:00 PM  | 24            | 63   | 0      | 87    | 48                           | 113  | 0      | 161   | 87                           | 42   | 0      | 129   | 377   |
| 3:15 PM  | 25            | 56   | 0      | 81    | 43                           | 107  | 0      | 150   | 98                           | 30   | 0      | 128   | 359   |
| 3:30 PM  | 24            | 82   | 0      | 106   | 51                           | 103  | 0      | 154   | 105                          | 33   | 0      | 138   | 398   |
| 3:45 PM  | 21            | 51   | 0      | 72    | 47                           | 135  | 0      | 182   | 91                           | 34   | 0      | 125   | 379   |
| Total    | 94            | 252  | 0      | 346   | 189                          | 458  | 0      | 647   | 381                          | 139  | 0      | 520   | 1513  |
| 4:00 PM  | 16            | 54   | 0      | 70    | 38                           | 111  | 1      | 150   | 118                          | 39   | 0      | 157   | 377   |
| 4:15 PM  | 23            | 59   | 0      | 82    | 52                           | 129  | 0      | 181   | 120                          | 44   | 0      | 164   | 427   |
| 4:30 PM  | 17            | 85   | 0      | 102   | 48                           | 107  | 0      | 155   | 102                          | 43   | 0      | 145   | 402   |
| 4:45 PM  | 25            | 45   | 0      | 70    | 65                           | 96   | 0      | 161   | 137                          | 49   | 0      | 186   | 417   |
| Total    | 81            | 243  | 0      | 324   | 203                          | 443  | 1      | 647   | 477                          | 175  | 0      | 652   | 1623  |
| 5:00 PM  | 27            | 74   | 0      | 101   | 54                           | 117  | 0      | 171   | 91                           | 37   | 0      | 128   | 400   |
| 5:15 PM  | 21            | 75   | 0      | 96    | 43                           | 134  | 1      | 178   | 128                          | 34   | 0      | 162   | 436   |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Cherry Street |            |          |            | Washington Street (Route 16) |            |          |            | Washington Street (Route 16) |            |          |            | Total       |
|-------------------|---------------|------------|----------|------------|------------------------------|------------|----------|------------|------------------------------|------------|----------|------------|-------------|
|                   | from North    |            |          |            | from East                    |            |          |            | from West                    |            |          |            |             |
|                   | Right         | Left       | U-Turn   | Total      | Right                        | Thru       | U-Turn   | Total      | Thru                         | Left       | U-Turn   | Total      |             |
| 5:30 PM           | 16            | 94         | 0        | 110        | 70                           | 120        | 1        | 191        | 128                          | 34         | 0        | 162        | 463         |
| 5:45 PM           | 27            | 72         | 0        | 99         | 42                           | 144        | 0        | 186        | 141                          | 46         | 0        | 187        | 472         |
| <b>Total</b>      | <b>91</b>     | <b>315</b> | <b>0</b> | <b>406</b> | <b>209</b>                   | <b>515</b> | <b>2</b> | <b>726</b> | <b>488</b>                   | <b>151</b> | <b>0</b> | <b>639</b> | <b>1771</b> |
| 6:00 PM           | 25            | 69         | 1        | 95         | 54                           | 125        | 0        | 179        | 128                          | 37         | 0        | 165        | 439         |
| 6:15 PM           | 21            | 53         | 0        | 74         | 37                           | 138        | 0        | 175        | 122                          | 54         | 0        | 176        | 425         |
| 6:30 PM           | 15            | 76         | 0        | 91         | 44                           | 132        | 0        | 176        | 114                          | 41         | 0        | 155        | 422         |
| 6:45 PM           | 9             | 45         | 0        | 54         | 27                           | 116        | 0        | 143        | 85                           | 37         | 0        | 122        | 319         |
| <b>Total</b>      | <b>70</b>     | <b>243</b> | <b>1</b> | <b>314</b> | <b>162</b>                   | <b>511</b> | <b>0</b> | <b>673</b> | <b>449</b>                   | <b>169</b> | <b>0</b> | <b>618</b> | <b>1605</b> |
| 7:00 PM           | 7             | 36         | 0        | 43         | 27                           | 99         | 0        | 126        | 69                           | 26         | 0        | 95         | 264         |
| 7:15 PM           | 13            | 33         | 0        | 46         | 16                           | 83         | 0        | 99         | 87                           | 43         | 0        | 130        | 275         |
| 7:30 PM           | 13            | 36         | 0        | 49         | 16                           | 73         | 0        | 89         | 57                           | 32         | 0        | 89         | 227         |
| 7:45 PM           | 7             | 18         | 0        | 25         | 18                           | 59         | 0        | 77         | 43                           | 27         | 0        | 70         | 172         |
| <b>Total</b>      | <b>40</b>     | <b>123</b> | <b>0</b> | <b>163</b> | <b>77</b>                    | <b>314</b> | <b>0</b> | <b>391</b> | <b>256</b>                   | <b>128</b> | <b>0</b> | <b>384</b> | <b>938</b>  |
| Grand Total       | 964           | 3225       | 1        | 4190       | 1813                         | 5418       | 3        | 7234       | 5370                         | 1621       | 2        | 6993       | 18417       |
| Approach %        | 23.0          | 77.0       | 0.0      |            | 25.1                         | 74.9       | 0.0      |            | 76.8                         | 23.2       | 0.0      |            |             |
| Total %           | 5.2           | 17.5       | 0.0      | 22.8       | 9.8                          | 29.4       | 0.0      | 39.3       | 29.2                         | 8.8        | 0.0      | 38.0       |             |
| Exiting Leg Total |               |            |          | 3435       |                              |            |          | 8598       |                              |            |          | 6384       | 18417       |
| Cars              | 944           | 3144       | 1        | 4089       | 1762                         | 5166       | 3        | 6931       | 5127                         | 1563       | 2        | 6692       | 17712       |
| % Cars            | 97.9          | 97.5       | 100.0    | 97.6       | 97.2                         | 95.3       | 100.0    | 95.8       | 95.5                         | 96.4       | 100.0    | 95.7       | 96.2        |
| Exiting Leg Total |               |            |          | 3326       |                              |            |          | 8274       |                              |            |          | 6112       | 17712       |
| Heavy Vehicles    | 20            | 81         | 0        | 101        | 51                           | 252        | 0        | 303        | 243                          | 58         | 0        | 301        | 705         |
| % Heavy Vehicles  | 2.1           | 2.5        | 0.0      | 2.4        | 2.8                          | 4.7        | 0.0      | 4.2        | 4.5                          | 3.6        | 0.0      | 4.3        | 3.8         |
| Exiting Leg Total |               |            |          | 109        |                              |            |          | 324        |                              |            |          | 272        | 705         |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                    | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                    | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 7:45 AM            | 15            | 108   | 0      | 123   | 25                           | 116   | 0      | 141   | 136                          | 33    | 0      | 169   | 433   |
| 7:45 AM            | 13            | 94    | 0      | 107   | 38                           | 98    | 0      | 136   | 122                          | 9     | 0      | 131   | 374   |
| 8:00 AM            | 15            | 117   | 0      | 132   | 24                           | 79    | 0      | 103   | 136                          | 21    | 0      | 157   | 392   |
| 8:15 AM            | 15            | 124   | 0      | 139   | 40                           | 107   | 0      | 147   | 106                          | 17    | 0      | 123   | 409   |
| 8:30 AM            | 15            | 124   | 0      | 139   | 40                           | 107   | 0      | 147   | 106                          | 17    | 0      | 123   | 409   |
| Total Volume       | 58            | 443   | 0      | 501   | 127                          | 400   | 0      | 527   | 500                          | 80    | 0      | 580   | 1608  |
| % Approach Total   | 11.6          | 88.4  | 0.0    |       | 24.1                         | 75.9  | 0.0    |       | 86.2                         | 13.8  | 0.0    |       |       |
| PHF                | 0.967         | 0.893 | 0.000  | 0.901 | 0.794                        | 0.862 | 0.000  | 0.896 | 0.919                        | 0.606 | 0.000  | 0.858 | 0.928 |
| Cars               | 55            | 428   | 0      | 483   | 125                          | 379   | 0      | 504   | 473                          | 79    | 0      | 552   | 1539  |
| Cars %             | 94.8          | 96.6  | 0.0    | 96.4  | 98.4                         | 94.8  | 0.0    | 95.6  | 94.6                         | 98.8  | 0.0    | 95.2  | 95.7  |
| Heavy Vehicles     | 3             | 15    | 0      | 18    | 2                            | 21    | 0      | 23    | 27                           | 1     | 0      | 28    | 69    |
| Heavy Vehicles %   | 5.2           | 3.4   | 0.0    | 3.6   | 1.6                          | 5.3   | 0.0    | 4.4   | 5.4                          | 1.3   | 0.0    | 4.8   | 4.3   |
| Cars Enter Leg     | 55            | 428   | 0      | 483   | 125                          | 379   | 0      | 504   | 473                          | 79    | 0      | 552   | 1539  |
| Heavy Enter Leg    | 3             | 15    | 0      | 18    | 2                            | 21    | 0      | 23    | 27                           | 1     | 0      | 28    | 69    |
| Total Entering Leg | 58            | 443   | 0      | 501   | 127                          | 400   | 0      | 527   | 500                          | 80    | 0      | 580   | 1608  |
| Cars Exiting Leg   |               |       |        | 204   |                              |       |        | 901   |                              |       |        | 434   | 1539  |
| Heavy Exiting Leg  |               |       |        | 3     |                              |       |        | 42    |                              |       |        | 24    | 69    |
| Total Exiting Leg  |               |       |        | 207   |                              |       |        | 943   |                              |       |        | 458   | 1608  |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 1:45 PM          | 17            | 51    | 0      | 68    | 35                           | 102   | 0      | 137   | 90                           | 34    | 0      | 124   | 329   |
| 2:00 PM          | 25            | 48    | 0      | 73    | 18                           | 118   | 0      | 136   | 94                           | 18    | 0      | 112   | 321   |
| 2:15 PM          | 19            | 57    | 0      | 76    | 33                           | 117   | 0      | 150   | 98                           | 36    | 0      | 134   | 360   |
| 2:30 PM          | 36            | 79    | 0      | 115   | 57                           | 106   | 0      | 163   | 79                           | 28    | 0      | 107   | 385   |
| Total Volume     | 97            | 235   | 0      | 332   | 143                          | 443   | 0      | 586   | 361                          | 116   | 0      | 477   | 1395  |
| % Approach Total | 29.2          | 70.8  | 0.0    |       | 24.4                         | 75.6  | 0.0    |       | 75.7                         | 24.3  | 0.0    |       |       |
| PHF              | 0.674         | 0.744 | 0.000  | 0.722 | 0.627                        | 0.939 | 0.000  | 0.899 | 0.921                        | 0.806 | 0.000  | 0.890 | 0.906 |
| Cars             | 95            | 226   | 0      | 321   | 136                          | 428   | 0      | 564   | 347                          | 106   | 0      | 453   | 1338  |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                    | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|--------------------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|                    | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|                    | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| Cars %             | 97.9          | 96.2 | 0.0    | 96.7  | 95.1                         | 96.6 | 0.0    | 96.2  | 96.1                         | 91.4 | 0.0    | 95.0  | 95.9  |
| Heavy Vehicles     | 2             | 9    | 0      | 11    | 7                            | 15   | 0      | 22    | 14                           | 10   | 0      | 24    | 57    |
| Heavy Vehicles %   | 2.1           | 3.8  | 0.0    | 3.3   | 4.9                          | 3.4  | 0.0    | 3.8   | 3.9                          | 8.6  | 0.0    | 5.0   | 4.1   |
| Cars Enter Leg     | 95            | 226  | 0      | 321   | 136                          | 428  | 0      | 564   | 347                          | 106  | 0      | 453   | 1338  |
| Heavy Enter Leg    | 2             | 9    | 0      | 11    | 7                            | 15   | 0      | 22    | 14                           | 10   | 0      | 24    | 57    |
| Total Entering Leg | 97            | 235  | 0      | 332   | 143                          | 443  | 0      | 586   | 361                          | 116  | 0      | 477   | 1395  |
| Cars Exiting Leg   |               |      |        | 242   |                              |      |        | 573   |                              |      |        | 523   | 1338  |
| Heavy Exiting Leg  |               |      |        | 17    |                              |      |        | 23    |                              |      |        | 17    | 57    |
| Total Exiting Leg  |               |      |        | 259   |                              |      |        | 596   |                              |      |        | 540   | 1395  |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 5:15 PM            | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                    | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 5:15 PM            | 21            | 75    | 0      | 96    | 43                           | 134   | 1      | 178   | 128                          | 34    | 0      | 162   | 436   |
| 5:30 PM            | 16            | 94    | 0      | 110   | 70                           | 120   | 1      | 191   | 128                          | 34    | 0      | 162   | 463   |
| 5:45 PM            | 27            | 72    | 0      | 99    | 42                           | 144   | 0      | 186   | 141                          | 46    | 0      | 187   | 472   |
| 6:00 PM            | 25            | 69    | 1      | 95    | 54                           | 125   | 0      | 179   | 128                          | 37    | 0      | 165   | 439   |
| Total Volume       | 89            | 310   | 1      | 400   | 209                          | 523   | 2      | 734   | 525                          | 151   | 0      | 676   | 1810  |
| % Approach Total   | 22.3          | 77.5  | 0.3    |       | 28.5                         | 71.3  | 0.3    |       | 77.7                         | 22.3  | 0.0    |       |       |
| PHF                | 0.824         | 0.824 | 0.250  | 0.909 | 0.746                        | 0.908 | 0.500  | 0.961 | 0.931                        | 0.821 | 0.000  | 0.904 | 0.959 |
| Cars               | 89            | 310   | 1      | 400   | 208                          | 506   | 2      | 716   | 511                          | 150   | 0      | 661   | 1777  |
| Cars %             | 100.0         | 100.0 | 100.0  | 100.0 | 99.5                         | 96.7  | 100.0  | 97.5  | 97.3                         | 99.3  | 0.0    | 97.8  | 98.2  |
| Heavy Vehicles     | 0             | 0     | 0      | 0     | 1                            | 17    | 0      | 18    | 14                           | 1     | 0      | 15    | 33    |
| Heavy Vehicles %   | 0.0           | 0.0   | 0.0    | 0.0   | 0.5                          | 3.3   | 0.0    | 2.5   | 2.7                          | 0.7   | 0.0    | 2.2   | 1.8   |
| Cars Enter Leg     | 89            | 310   | 1      | 400   | 208                          | 506   | 2      | 716   | 511                          | 150   | 0      | 661   | 1777  |
| Heavy Enter Leg    | 0             | 0     | 0      | 0     | 1                            | 17    | 0      | 18    | 14                           | 1     | 0      | 15    | 33    |
| Total Entering Leg | 89            | 310   | 1      | 400   | 209                          | 523   | 2      | 734   | 525                          | 151   | 0      | 676   | 1810  |
| Cars Exiting Leg   |               |       |        | 359   |                              |       |        | 823   |                              |       |        | 595   | 1777  |
| Heavy Exiting Leg  |               |       |        | 2     |                              |       |        | 14    |                              |       |        | 17    | 33    |
| Total Exiting Leg  |               |       |        | 361   |                              |       |        | 837   |                              |       |        | 612   | 1810  |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars**

|          | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|          | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 6:00 AM  | 8             | 8    | 0      | 16    | 9                            | 29   | 0      | 38    | 40                           | 9    | 0      | 49    | 103   |
| 6:15 AM  | 17            | 17   | 0      | 34    | 6                            | 39   | 0      | 45    | 42                           | 13   | 0      | 55    | 134   |
| 6:30 AM  | 23            | 35   | 0      | 58    | 6                            | 58   | 0      | 64    | 56                           | 17   | 0      | 73    | 195   |
| 6:45 AM  | 19            | 61   | 0      | 80    | 13                           | 55   | 0      | 68    | 66                           | 20   | 0      | 86    | 234   |
| Total    | 67            | 121  | 0      | 188   | 34                           | 181  | 0      | 215   | 204                          | 59   | 0      | 263   | 666   |
| 7:00 AM  | 13            | 50   | 0      | 63    | 11                           | 53   | 0      | 64    | 65                           | 14   | 0      | 79    | 206   |
| 7:15 AM  | 20            | 82   | 0      | 102   | 14                           | 75   | 0      | 89    | 101                          | 25   | 0      | 126   | 317   |
| 7:30 AM  | 18            | 102  | 0      | 120   | 27                           | 79   | 0      | 106   | 116                          | 31   | 0      | 147   | 373   |
| 7:45 AM  | 15            | 106  | 0      | 121   | 24                           | 113  | 0      | 137   | 131                          | 33   | 0      | 164   | 422   |
| Total    | 66            | 340  | 0      | 406   | 76                           | 320  | 0      | 396   | 413                          | 103  | 0      | 516   | 1318  |
| 8:00 AM  | 11            | 86   | 0      | 97    | 37                           | 93   | 0      | 130   | 111                          | 9    | 0      | 120   | 347   |
| 8:15 AM  | 14            | 115  | 0      | 129   | 24                           | 76   | 0      | 100   | 130                          | 20   | 0      | 150   | 379   |
| 8:30 AM  | 15            | 121  | 0      | 136   | 40                           | 97   | 0      | 137   | 101                          | 17   | 0      | 118   | 391   |
| 8:45 AM  | 9             | 79   | 0      | 88    | 36                           | 99   | 0      | 135   | 135                          | 20   | 0      | 155   | 378   |
| Total    | 49            | 401  | 0      | 450   | 137                          | 365  | 0      | 502   | 477                          | 66   | 0      | 543   | 1495  |
| 9:00 AM  | 13            | 57   | 0      | 70    | 39                           | 72   | 0      | 111   | 102                          | 33   | 0      | 135   | 316   |
| 9:15 AM  | 13            | 47   | 0      | 60    | 24                           | 90   | 0      | 114   | 94                           | 33   | 0      | 127   | 301   |
| 9:30 AM  | 15            | 50   | 0      | 65    | 23                           | 79   | 0      | 102   | 92                           | 24   | 0      | 116   | 283   |
| 9:45 AM  | 12            | 48   | 0      | 60    | 16                           | 63   | 0      | 79    | 109                          | 25   | 0      | 134   | 273   |
| Total    | 53            | 202  | 0      | 255   | 102                          | 304  | 0      | 406   | 397                          | 115  | 0      | 512   | 1173  |
| 10:00 AM | 9             | 35   | 0      | 44    | 22                           | 74   | 0      | 96    | 98                           | 25   | 0      | 123   | 263   |
| 10:15 AM | 8             | 35   | 0      | 43    | 26                           | 89   | 0      | 115   | 73                           | 22   | 0      | 95    | 253   |
| 10:30 AM | 18            | 41   | 0      | 59    | 21                           | 74   | 0      | 95    | 76                           | 20   | 0      | 96    | 250   |
| 10:45 AM | 13            | 35   | 0      | 48    | 27                           | 83   | 0      | 110   | 85                           | 21   | 0      | 106   | 264   |
| Total    | 48            | 146  | 0      | 194   | 96                           | 320  | 0      | 416   | 332                          | 88   | 0      | 420   | 1030  |
| 11:00 AM | 7             | 46   | 0      | 53    | 18                           | 88   | 0      | 106   | 70                           | 13   | 0      | 83    | 242   |
| 11:15 AM | 18            | 38   | 0      | 56    | 18                           | 80   | 0      | 98    | 89                           | 17   | 0      | 106   | 260   |
| 11:30 AM | 15            | 25   | 0      | 40    | 28                           | 66   | 0      | 94    | 82                           | 23   | 0      | 105   | 239   |
| 11:45 AM | 15            | 45   | 0      | 60    | 23                           | 82   | 0      | 105   | 79                           | 20   | 0      | 99    | 264   |
| Total    | 55            | 154  | 0      | 209   | 87                           | 316  | 0      | 403   | 320                          | 73   | 0      | 393   | 1005  |
| 12:00 PM | 14            | 48   | 0      | 62    | 33                           | 93   | 0      | 126   | 87                           | 24   | 0      | 111   | 299   |
| 12:15 PM | 20            | 53   | 0      | 73    | 37                           | 98   | 0      | 135   | 80                           | 34   | 1      | 115   | 323   |
| 12:30 PM | 16            | 42   | 0      | 58    | 28                           | 101  | 0      | 129   | 75                           | 21   | 0      | 96    | 283   |
| 12:45 PM | 19            | 44   | 0      | 63    | 39                           | 76   | 0      | 115   | 86                           | 27   | 0      | 113   | 291   |
| Total    | 69            | 187  | 0      | 256   | 137                          | 368  | 0      | 505   | 328                          | 106  | 1      | 435   | 1196  |
| 1:00 PM  | 15            | 64   | 0      | 79    | 28                           | 78   | 0      | 106   | 79                           | 19   | 1      | 99    | 284   |
| 1:15 PM  | 14            | 39   | 0      | 53    | 33                           | 79   | 0      | 112   | 86                           | 26   | 0      | 112   | 277   |
| 1:30 PM  | 23            | 44   | 0      | 67    | 30                           | 92   | 0      | 122   | 77                           | 30   | 0      | 107   | 296   |
| 1:45 PM  | 17            | 50   | 0      | 67    | 34                           | 101  | 0      | 135   | 87                           | 29   | 0      | 116   | 318   |
| Total    | 69            | 197  | 0      | 266   | 125                          | 350  | 0      | 475   | 329                          | 104  | 1      | 434   | 1175  |
| 2:00 PM  | 24            | 47   | 0      | 71    | 17                           | 112  | 0      | 129   | 92                           | 14   | 0      | 106   | 306   |
| 2:15 PM  | 18            | 54   | 0      | 72    | 31                           | 115  | 0      | 146   | 93                           | 35   | 0      | 128   | 346   |
| 2:30 PM  | 36            | 75   | 0      | 111   | 54                           | 100  | 0      | 154   | 75                           | 28   | 0      | 103   | 368   |
| 2:45 PM  | 18            | 49   | 0      | 67    | 52                           | 125  | 0      | 177   | 79                           | 19   | 0      | 98    | 342   |
| Total    | 96            | 225  | 0      | 321   | 154                          | 452  | 0      | 606   | 339                          | 96   | 0      | 435   | 1362  |
| 3:00 PM  | 23            | 63   | 0      | 86    | 48                           | 111  | 0      | 159   | 83                           | 42   | 0      | 125   | 370   |
| 3:15 PM  | 24            | 55   | 0      | 79    | 43                           | 105  | 0      | 148   | 97                           | 29   | 0      | 126   | 353   |
| 3:30 PM  | 24            | 81   | 0      | 105   | 49                           | 97   | 0      | 146   | 103                          | 33   | 0      | 136   | 387   |
| 3:45 PM  | 19            | 51   | 0      | 70    | 45                           | 133  | 0      | 178   | 86                           | 34   | 0      | 120   | 368   |
| Total    | 90            | 250  | 0      | 340   | 185                          | 446  | 0      | 631   | 369                          | 138  | 0      | 507   | 1478  |
| 4:00 PM  | 16            | 54   | 0      | 70    | 37                           | 111  | 1      | 149   | 111                          | 37   | 0      | 148   | 367   |
| 4:15 PM  | 23            | 59   | 0      | 82    | 48                           | 126  | 0      | 174   | 116                          | 43   | 0      | 159   | 415   |
| 4:30 PM  | 17            | 85   | 0      | 102   | 44                           | 104  | 0      | 148   | 98                           | 42   | 0      | 140   | 390   |
| 4:45 PM  | 25            | 43   | 0      | 68    | 56                           | 94   | 0      | 150   | 132                          | 49   | 0      | 181   | 399   |
| Total    | 81            | 241  | 0      | 322   | 185                          | 435  | 1      | 621   | 457                          | 171  | 0      | 628   | 1571  |
| 5:00 PM  | 27            | 74   | 0      | 101   | 52                           | 115  | 0      | 167   | 90                           | 36   | 0      | 126   | 394   |
| 5:15 PM  | 21            | 75   | 0      | 96    | 43                           | 132  | 1      | 176   | 122                          | 34   | 0      | 156   | 428   |



PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars**

|                    | Cherry Street |             |          |             | Washington Street (Route 16) |             |          |             | Washington Street (Route 16) |             |          |             | Total        |
|--------------------|---------------|-------------|----------|-------------|------------------------------|-------------|----------|-------------|------------------------------|-------------|----------|-------------|--------------|
|                    | from North    |             |          |             | from East                    |             |          |             | from West                    |             |          |             |              |
|                    | Right         | Left        | U-Turn   | Total       | Right                        | Thru        | U-Turn   | Total       | Thru                         | Left        | U-Turn   | Total       |              |
| 5:30 PM            | 16            | 94          | 0        | 110         | 69                           | 117         | 1        | 187         | 127                          | 34          | 0        | 161         | 458          |
| 5:45 PM            | 27            | 72          | 0        | 99          | 42                           | 136         | 0        | 178         | 138                          | 45          | 0        | 183         | 460          |
| <b>Total</b>       | <b>91</b>     | <b>315</b>  | <b>0</b> | <b>406</b>  | <b>206</b>                   | <b>500</b>  | <b>2</b> | <b>708</b>  | <b>477</b>                   | <b>149</b>  | <b>0</b> | <b>626</b>  | <b>1740</b>  |
| 6:00 PM            | 25            | 69          | 1        | 95          | 54                           | 121         | 0        | 175         | 124                          | 37          | 0        | 161         | 431          |
| 6:15 PM            | 21            | 52          | 0        | 73          | 37                           | 135         | 0        | 172         | 117                          | 53          | 0        | 170         | 415          |
| 6:30 PM            | 15            | 76          | 0        | 91          | 44                           | 130         | 0        | 174         | 109                          | 41          | 0        | 150         | 415          |
| 6:45 PM            | 9             | 45          | 0        | 54          | 26                           | 115         | 0        | 141         | 84                           | 37          | 0        | 121         | 316          |
| <b>Total</b>       | <b>70</b>     | <b>242</b>  | <b>1</b> | <b>313</b>  | <b>161</b>                   | <b>501</b>  | <b>0</b> | <b>662</b>  | <b>434</b>                   | <b>168</b>  | <b>0</b> | <b>602</b>  | <b>1577</b>  |
| 7:00 PM            | 7             | 36          | 0        | 43          | 27                           | 97          | 0        | 124         | 68                           | 26          | 0        | 94          | 261          |
| 7:15 PM            | 13            | 33          | 0        | 46          | 16                           | 82          | 0        | 98          | 85                           | 43          | 0        | 128         | 272          |
| 7:30 PM            | 13            | 36          | 0        | 49          | 16                           | 72          | 0        | 88          | 56                           | 31          | 0        | 87          | 224          |
| 7:45 PM            | 7             | 18          | 0        | 25          | 18                           | 57          | 0        | 75          | 42                           | 27          | 0        | 69          | 169          |
| <b>Total</b>       | <b>40</b>     | <b>123</b>  | <b>0</b> | <b>163</b>  | <b>77</b>                    | <b>308</b>  | <b>0</b> | <b>385</b>  | <b>251</b>                   | <b>127</b>  | <b>0</b> | <b>378</b>  | <b>926</b>   |
| <b>Grand Total</b> | <b>944</b>    | <b>3144</b> | <b>1</b> | <b>4089</b> | <b>1762</b>                  | <b>5166</b> | <b>3</b> | <b>6931</b> | <b>5127</b>                  | <b>1563</b> | <b>2</b> | <b>6692</b> | <b>17712</b> |
| Approach %         | 23.1          | 76.9        | 0.0      |             | 25.4                         | 74.5        | 0.0      |             | 76.6                         | 23.4        | 0.0      |             |              |
| Total %            | 5.3           | 17.8        | 0.0      | 23.1        | 9.9                          | 29.2        | 0.0      | 39.1        | 28.9                         | 8.8         | 0.0      | 37.8        |              |
| Exiting Leg Total  |               |             |          | 3326        |                              |             |          | 8274        |                              |             |          | 6112        | 17712        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

| 7:45 AM          | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 7:45 AM          | 15            | 106   | 0      | 121   | 24                           | 113   | 0      | 137   | 131                          | 33    | 0      | 164   | 422   |
| 8:00 AM          | 11            | 86    | 0      | 97    | 37                           | 93    | 0      | 130   | 111                          | 9     | 0      | 120   | 347   |
| 8:15 AM          | 14            | 115   | 0      | 129   | 24                           | 76    | 0      | 100   | 130                          | 20    | 0      | 150   | 379   |
| 8:30 AM          | 15            | 121   | 0      | 136   | 40                           | 97    | 0      | 137   | 101                          | 17    | 0      | 118   | 391   |
| Total Volume     | 55            | 428   | 0      | 483   | 125                          | 379   | 0      | 504   | 473                          | 79    | 0      | 552   | 1539  |
| % Approach Total | 11.4          | 88.6  | 0.0    |       | 24.8                         | 75.2  | 0.0    |       | 85.7                         | 14.3  | 0.0    |       |       |
| PHF              | 0.917         | 0.884 | 0.000  | 0.888 | 0.781                        | 0.838 | 0.000  | 0.920 | 0.903                        | 0.598 | 0.000  | 0.841 | 0.912 |
| Entering Leg     | 55            | 428   | 0      | 483   | 125                          | 379   | 0      | 504   | 473                          | 79    | 0      | 552   | 1539  |
| Exiting Leg      |               |       |        | 204   |                              |       |        | 901   |                              |       |        | 434   | 1539  |
| Total            |               |       |        | 687   |                              |       |        | 1405  |                              |       |        | 986   | 3078  |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

| 1:45 PM          | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 1:45 PM          | 17            | 50    | 0      | 67    | 34                           | 101   | 0      | 135   | 87                           | 29    | 0      | 116   | 318   |
| 2:00 PM          | 24            | 47    | 0      | 71    | 17                           | 112   | 0      | 129   | 92                           | 14    | 0      | 106   | 306   |
| 2:15 PM          | 18            | 54    | 0      | 72    | 31                           | 115   | 0      | 146   | 93                           | 35    | 0      | 128   | 346   |
| 2:30 PM          | 36            | 75    | 0      | 111   | 54                           | 100   | 0      | 154   | 75                           | 28    | 0      | 103   | 368   |
| Total Volume     | 95            | 226   | 0      | 321   | 136                          | 428   | 0      | 564   | 347                          | 106   | 0      | 453   | 1338  |
| % Approach Total | 29.6          | 70.4  | 0.0    |       | 24.1                         | 75.9  | 0.0    |       | 76.6                         | 23.4  | 0.0    |       |       |
| PHF              | 0.660         | 0.753 | 0.000  | 0.723 | 0.630                        | 0.930 | 0.000  | 0.916 | 0.933                        | 0.757 | 0.000  | 0.885 | 0.909 |
| Entering Leg     | 95            | 226   | 0      | 321   | 136                          | 428   | 0      | 564   | 347                          | 106   | 0      | 453   | 1338  |
| Exiting Leg      |               |       |        | 242   |                              |       |        | 573   |                              |       |        | 523   | 1338  |
| Total            |               |       |        | 563   |                              |       |        | 1137  |                              |       |        | 976   | 2676  |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 5:15 PM | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|---------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|         | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|         | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 5:15 PM | 21            | 75   | 0      | 96    | 43                           | 132  | 1      | 176   | 122                          | 34   | 0      | 156   | 428   |
| 5:30 PM | 16            | 94   | 0      | 110   | 69                           | 117  | 1      | 187   | 127                          | 34   | 0      | 161   | 458   |
| 5:45 PM | 27            | 72   | 0      | 99    | 42                           | 136  | 0      | 178   | 138                          | 45   | 0      | 183   | 460   |
| 6:00 PM | 25            | 69   | 1      | 95    | 54                           | 121  | 0      | 175   | 124                          | 37   | 0      | 161   | 431   |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars**

|                  | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| Total Volume     | 89            | 310   | 1      | 400   | 208                          | 506   | 2      | 716   | 511                          | 150   | 0      | 661   | 1777  |
| % Approach Total | 22.3          | 77.5  | 0.3    |       | 29.1                         | 70.7  | 0.3    |       | 77.3                         | 22.7  | 0.0    |       |       |
| PHF              | 0.824         | 0.824 | 0.250  | 0.909 | 0.754                        | 0.930 | 0.500  | 0.957 | 0.926                        | 0.833 | 0.000  | 0.903 | 0.966 |
| Entering Leg     | 89            | 310   | 1      | 400   | 208                          | 506   | 2      | 716   | 511                          | 150   | 0      | 661   | 1777  |
| Exiting Leg      |               |       |        | 359   |                              |       |        | 823   |                              |       |        | 595   | 1777  |
| Total            |               |       |        | 759   |                              |       |        | 1539  |                              |       |        | 1256  | 3554  |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|          | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|          | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 6:00 AM  | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 1                            | 2    | 0      | 3     | 5     |
| 6:15 AM  | 0             | 0    | 0      | 0     | 0                            | 4    | 0      | 4     | 3                            | 2    | 0      | 5     | 9     |
| 6:30 AM  | 0             | 2    | 0      | 2     | 0                            | 6    | 0      | 6     | 5                            | 0    | 0      | 5     | 13    |
| 6:45 AM  | 0             | 1    | 0      | 1     | 0                            | 4    | 0      | 4     | 8                            | 3    | 0      | 11    | 16    |
| Total    | 0             | 3    | 0      | 3     | 0                            | 16   | 0      | 16    | 17                           | 7    | 0      | 24    | 43    |
| 7:00 AM  | 0             | 5    | 0      | 5     | 0                            | 2    | 0      | 2     | 4                            | 1    | 0      | 5     | 12    |
| 7:15 AM  | 0             | 4    | 0      | 4     | 0                            | 5    | 0      | 5     | 6                            | 1    | 0      | 7     | 16    |
| 7:30 AM  | 1             | 3    | 0      | 4     | 0                            | 6    | 0      | 6     | 10                           | 1    | 0      | 11    | 21    |
| 7:45 AM  | 0             | 2    | 0      | 2     | 1                            | 3    | 0      | 4     | 5                            | 0    | 0      | 5     | 11    |
| Total    | 1             | 14   | 0      | 15    | 1                            | 16   | 0      | 17    | 25                           | 3    | 0      | 28    | 60    |
| 8:00 AM  | 2             | 8    | 0      | 10    | 1                            | 5    | 0      | 6     | 11                           | 0    | 0      | 11    | 27    |
| 8:15 AM  | 1             | 2    | 0      | 3     | 0                            | 3    | 0      | 3     | 6                            | 1    | 0      | 7     | 13    |
| 8:30 AM  | 0             | 3    | 0      | 3     | 0                            | 10   | 0      | 10    | 5                            | 0    | 0      | 5     | 18    |
| 8:45 AM  | 1             | 1    | 0      | 2     | 0                            | 5    | 0      | 5     | 4                            | 0    | 0      | 4     | 11    |
| Total    | 4             | 14   | 0      | 18    | 1                            | 23   | 0      | 24    | 26                           | 1    | 0      | 27    | 69    |
| 9:00 AM  | 0             | 1    | 0      | 1     | 1                            | 2    | 0      | 3     | 6                            | 1    | 0      | 7     | 11    |
| 9:15 AM  | 1             | 3    | 0      | 4     | 1                            | 5    | 0      | 6     | 7                            | 1    | 0      | 8     | 18    |
| 9:30 AM  | 1             | 4    | 0      | 5     | 0                            | 6    | 0      | 6     | 7                            | 0    | 0      | 7     | 18    |
| 9:45 AM  | 0             | 5    | 0      | 5     | 1                            | 11   | 0      | 12    | 8                            | 3    | 0      | 11    | 28    |
| Total    | 2             | 13   | 0      | 15    | 3                            | 24   | 0      | 27    | 28                           | 5    | 0      | 33    | 75    |
| 10:00 AM | 0             | 1    | 0      | 1     | 0                            | 10   | 0      | 10    | 5                            | 0    | 0      | 5     | 16    |
| 10:15 AM | 1             | 1    | 0      | 2     | 0                            | 4    | 0      | 4     | 4                            | 2    | 0      | 6     | 12    |
| 10:30 AM | 0             | 1    | 0      | 1     | 1                            | 6    | 0      | 7     | 2                            | 2    | 0      | 4     | 12    |
| 10:45 AM | 0             | 3    | 0      | 3     | 1                            | 7    | 0      | 8     | 6                            | 1    | 0      | 7     | 18    |
| Total    | 1             | 6    | 0      | 7     | 2                            | 27   | 0      | 29    | 17                           | 5    | 0      | 22    | 58    |
| 11:00 AM | 0             | 0    | 0      | 0     | 0                            | 7    | 0      | 7     | 10                           | 2    | 0      | 12    | 19    |
| 11:15 AM | 0             | 1    | 0      | 1     | 2                            | 4    | 0      | 6     | 4                            | 0    | 0      | 4     | 11    |
| 11:30 AM | 2             | 2    | 0      | 4     | 0                            | 10   | 0      | 10    | 2                            | 2    | 0      | 4     | 18    |
| 11:45 AM | 0             | 3    | 0      | 3     | 1                            | 4    | 0      | 5     | 0                            | 4    | 0      | 4     | 12    |
| Total    | 2             | 6    | 0      | 8     | 3                            | 25   | 0      | 28    | 16                           | 8    | 0      | 24    | 60    |
| 12:00 PM | 1             | 3    | 0      | 4     | 2                            | 6    | 0      | 8     | 6                            | 0    | 0      | 6     | 18    |
| 12:15 PM | 0             | 0    | 0      | 0     | 0                            | 7    | 0      | 7     | 3                            | 1    | 0      | 4     | 11    |
| 12:30 PM | 1             | 1    | 0      | 2     | 1                            | 10   | 0      | 11    | 5                            | 1    | 0      | 6     | 19    |
| 12:45 PM | 0             | 1    | 0      | 1     | 1                            | 4    | 0      | 5     | 11                           | 1    | 0      | 12    | 18    |
| Total    | 2             | 5    | 0      | 7     | 4                            | 27   | 0      | 31    | 25                           | 3    | 0      | 28    | 66    |
| 1:00 PM  | 0             | 3    | 0      | 3     | 1                            | 6    | 0      | 7     | 2                            | 0    | 0      | 2     | 12    |
| 1:15 PM  | 1             | 2    | 0      | 3     | 1                            | 11   | 0      | 12    | 3                            | 3    | 0      | 6     | 21    |
| 1:30 PM  | 1             | 1    | 0      | 2     | 1                            | 3    | 0      | 4     | 3                            | 2    | 0      | 5     | 11    |
| 1:45 PM  | 0             | 1    | 0      | 1     | 1                            | 1    | 0      | 2     | 3                            | 5    | 0      | 8     | 11    |
| Total    | 2             | 7    | 0      | 9     | 4                            | 21   | 0      | 25    | 11                           | 10   | 0      | 21    | 55    |
| 2:00 PM  | 1             | 1    | 0      | 2     | 1                            | 6    | 0      | 7     | 2                            | 4    | 0      | 6     | 15    |
| 2:15 PM  | 1             | 3    | 0      | 4     | 2                            | 2    | 0      | 4     | 5                            | 1    | 0      | 6     | 14    |
| 2:30 PM  | 0             | 4    | 0      | 4     | 3                            | 6    | 0      | 9     | 4                            | 0    | 0      | 4     | 17    |
| 2:45 PM  | 0             | 0    | 0      | 0     | 1                            | 8    | 0      | 9     | 4                            | 2    | 0      | 6     | 15    |
| Total    | 2             | 8    | 0      | 10    | 7                            | 22   | 0      | 29    | 15                           | 7    | 0      | 22    | 61    |
| 3:00 PM  | 1             | 0    | 0      | 1     | 0                            | 2    | 0      | 2     | 4                            | 0    | 0      | 4     | 7     |
| 3:15 PM  | 1             | 1    | 0      | 2     | 0                            | 2    | 0      | 2     | 1                            | 1    | 0      | 2     | 6     |
| 3:30 PM  | 0             | 1    | 0      | 1     | 2                            | 6    | 0      | 8     | 2                            | 0    | 0      | 2     | 11    |
| 3:45 PM  | 2             | 0    | 0      | 2     | 2                            | 2    | 0      | 4     | 5                            | 0    | 0      | 5     | 11    |
| Total    | 4             | 2    | 0      | 6     | 4                            | 12   | 0      | 16    | 12                           | 1    | 0      | 13    | 35    |
| 4:00 PM  | 0             | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 7                            | 2    | 0      | 9     | 10    |
| 4:15 PM  | 0             | 0    | 0      | 0     | 4                            | 3    | 0      | 7     | 4                            | 1    | 0      | 5     | 12    |
| 4:30 PM  | 0             | 0    | 0      | 0     | 4                            | 3    | 0      | 7     | 4                            | 1    | 0      | 5     | 12    |
| 4:45 PM  | 0             | 2    | 0      | 2     | 9                            | 2    | 0      | 11    | 5                            | 0    | 0      | 5     | 18    |
| Total    | 0             | 2    | 0      | 2     | 18                           | 8    | 0      | 26    | 20                           | 4    | 0      | 24    | 52    |
| 5:00 PM  | 0             | 0    | 0      | 0     | 2                            | 2    | 0      | 4     | 1                            | 1    | 0      | 2     | 6     |
| 5:15 PM  | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 6                            | 0    | 0      | 6     | 8     |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



|                          | Cherry Street |             |            |             | Washington Street (Route 16) |             |            |             | Washington Street (Route 16) |             |            |             | Total      |
|--------------------------|---------------|-------------|------------|-------------|------------------------------|-------------|------------|-------------|------------------------------|-------------|------------|-------------|------------|
|                          | from North    |             |            |             | from East                    |             |            |             | from West                    |             |            |             |            |
|                          | Right         | Left        | U-Turn     | Total       | Right                        | Thru        | U-Turn     | Total       | Thru                         | Left        | U-Turn     | Total       |            |
| 5:30 PM                  | 0             | 0           | 0          | 0           | 1                            | 3           | 0          | 4           | 1                            | 0           | 0          | 1           | 5          |
| 5:45 PM                  | 0             | 0           | 0          | 0           | 0                            | 8           | 0          | 8           | 3                            | 1           | 0          | 4           | 12         |
| <b>Total</b>             | <b>0</b>      | <b>0</b>    | <b>0</b>   | <b>0</b>    | <b>3</b>                     | <b>15</b>   | <b>0</b>   | <b>18</b>   | <b>11</b>                    | <b>2</b>    | <b>0</b>   | <b>13</b>   | <b>31</b>  |
| 6:00 PM                  | 0             | 0           | 0          | 0           | 0                            | 4           | 0          | 4           | 4                            | 0           | 0          | 4           | 8          |
| 6:15 PM                  | 0             | 1           | 0          | 1           | 0                            | 3           | 0          | 3           | 5                            | 1           | 0          | 6           | 10         |
| 6:30 PM                  | 0             | 0           | 0          | 0           | 0                            | 2           | 0          | 2           | 5                            | 0           | 0          | 5           | 7          |
| 6:45 PM                  | 0             | 0           | 0          | 0           | 1                            | 1           | 0          | 2           | 1                            | 0           | 0          | 1           | 3          |
| <b>Total</b>             | <b>0</b>      | <b>1</b>    | <b>0</b>   | <b>1</b>    | <b>1</b>                     | <b>10</b>   | <b>0</b>   | <b>11</b>   | <b>15</b>                    | <b>1</b>    | <b>0</b>   | <b>16</b>   | <b>28</b>  |
| 7:00 PM                  | 0             | 0           | 0          | 0           | 0                            | 2           | 0          | 2           | 1                            | 0           | 0          | 1           | 3          |
| 7:15 PM                  | 0             | 0           | 0          | 0           | 0                            | 1           | 0          | 1           | 2                            | 0           | 0          | 2           | 3          |
| 7:30 PM                  | 0             | 0           | 0          | 0           | 0                            | 1           | 0          | 1           | 1                            | 1           | 0          | 2           | 3          |
| 7:45 PM                  | 0             | 0           | 0          | 0           | 0                            | 2           | 0          | 2           | 1                            | 0           | 0          | 1           | 3          |
| <b>Total</b>             | <b>0</b>      | <b>0</b>    | <b>0</b>   | <b>0</b>    | <b>0</b>                     | <b>6</b>    | <b>0</b>   | <b>6</b>    | <b>5</b>                     | <b>1</b>    | <b>0</b>   | <b>6</b>    | <b>12</b>  |
| <b>Grand Total</b>       | <b>20</b>     | <b>81</b>   | <b>0</b>   | <b>101</b>  | <b>51</b>                    | <b>252</b>  | <b>0</b>   | <b>303</b>  | <b>243</b>                   | <b>58</b>   | <b>0</b>   | <b>301</b>  | <b>705</b> |
| <b>Approach %</b>        | <b>19.8</b>   | <b>80.2</b> | <b>0.0</b> |             | <b>16.8</b>                  | <b>83.2</b> | <b>0.0</b> |             | <b>80.7</b>                  | <b>19.3</b> | <b>0.0</b> |             |            |
| <b>Total %</b>           | <b>2.8</b>    | <b>11.5</b> | <b>0.0</b> | <b>14.3</b> | <b>7.2</b>                   | <b>35.7</b> | <b>0.0</b> | <b>43.0</b> | <b>34.5</b>                  | <b>8.2</b>  | <b>0.0</b> | <b>42.7</b> |            |
| <b>Exiting Leg Total</b> |               |             |            | <b>109</b>  |                              |             |            | <b>324</b>  |                              |             |            | <b>272</b>  | <b>705</b> |
| Buses                    | 4             | 9           | 0          | 13          | 2                            | 41          | 0          | 43          | 40                           | 4           | 0          | 44          | 100        |
| % Buses                  | 20.0          | 11.1        | 0.0        | 12.9        | 3.9                          | 16.3        | 0.0        | 14.2        | 16.5                         | 6.9         | 0.0        | 14.6        | 14.2       |
| <b>Exiting Leg Total</b> |               |             |            | <b>6</b>    |                              |             |            | <b>49</b>   |                              |             |            | <b>45</b>   | <b>100</b> |
| Single-Unit Trucks       | 13            | 53          | 0          | 66          | 34                           | 174         | 0          | 208         | 168                          | 47          | 0          | 215         | 489        |
| % Single-Unit            | 65.0          | 65.4        | 0.0        | 65.3        | 66.7                         | 69.0        | 0.0        | 68.6        | 69.1                         | 81.0        | 0.0        | 71.4        | 69.4       |
| <b>Exiting Leg Total</b> |               |             |            | <b>81</b>   |                              |             |            | <b>221</b>  |                              |             |            | <b>187</b>  | <b>489</b> |
| Articulated Trucks       | 3             | 19          | 0          | 22          | 15                           | 37          | 0          | 52          | 35                           | 7           | 0          | 42          | 116        |
| % Articulated            | 15.0          | 23.5        | 0.0        | 21.8        | 29.4                         | 14.7        | 0.0        | 17.2        | 14.4                         | 12.1        | 0.0        | 14.0        | 16.5       |
| <b>Exiting Leg Total</b> |               |             |            | <b>22</b>   |                              |             |            | <b>54</b>   |                              |             |            | <b>40</b>   | <b>116</b> |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                           | Cherry Street |              |              |              | Washington Street (Route 16) |              |              |              | Washington Street (Route 16) |              |              |              | Total        |
|---------------------------|---------------|--------------|--------------|--------------|------------------------------|--------------|--------------|--------------|------------------------------|--------------|--------------|--------------|--------------|
|                           | from North    |              |              |              | from East                    |              |              |              | from West                    |              |              |              |              |
|                           | Right         | Left         | U-Turn       | Total        | Right                        | Thru         | U-Turn       | Total        | Thru                         | Left         | U-Turn       | Total        |              |
| 9:15 AM                   | 1             | 3            | 0            | 4            | 1                            | 5            | 0            | 6            | 7                            | 1            | 0            | 8            | 18           |
| 9:30 AM                   | 1             | 4            | 0            | 5            | 0                            | 6            | 0            | 6            | 7                            | 0            | 0            | 7            | 18           |
| 9:45 AM                   | 0             | 5            | 0            | 5            | 1                            | 11           | 0            | 12           | 8                            | 3            | 0            | 11           | 28           |
| 10:00 AM                  | 0             | 1            | 0            | 1            | 0                            | 10           | 0            | 10           | 5                            | 0            | 0            | 5            | 16           |
| <b>Total Volume</b>       | <b>2</b>      | <b>13</b>    | <b>0</b>     | <b>15</b>    | <b>2</b>                     | <b>32</b>    | <b>0</b>     | <b>34</b>    | <b>27</b>                    | <b>4</b>     | <b>0</b>     | <b>31</b>    | <b>80</b>    |
| <b>% Approach Total</b>   | <b>13.3</b>   | <b>86.7</b>  | <b>0.0</b>   |              | <b>5.9</b>                   | <b>94.1</b>  | <b>0.0</b>   |              | <b>87.1</b>                  | <b>12.9</b>  | <b>0.0</b>   |              |              |
| <b>PHF</b>                | <b>0.500</b>  | <b>0.650</b> | <b>0.000</b> | <b>0.750</b> | <b>0.500</b>                 | <b>0.727</b> | <b>0.000</b> | <b>0.708</b> | <b>0.844</b>                 | <b>0.333</b> | <b>0.000</b> | <b>0.705</b> | <b>0.714</b> |
| Buses                     | 0             | 1            | 0            | 1            | 0                            | 6            | 0            | 6            | 2                            | 0            | 0            | 2            | 9            |
| Buses %                   | 0.0           | 7.7          | 0.0          | 6.7          | 0.0                          | 18.8         | 0.0          | 17.6         | 7.4                          | 0.0          | 0.0          | 6.5          | 11.3         |
| Single-Unit Trucks        | 2             | 7            | 0            | 9            | 2                            | 21           | 0            | 23           | 21                           | 3            | 0            | 24           | 56           |
| Single-Unit %             | 100.0         | 53.8         | 0.0          | 60.0         | 100.0                        | 65.6         | 0.0          | 67.6         | 77.8                         | 75.0         | 0.0          | 77.4         | 70.0         |
| Articulated Trucks        | 0             | 5            | 0            | 5            | 0                            | 5            | 0            | 5            | 4                            | 1            | 0            | 5            | 15           |
| Articulated %             | 0.0           | 38.5         | 0.0          | 33.3         | 0.0                          | 15.6         | 0.0          | 14.7         | 14.8                         | 25.0         | 0.0          | 16.1         | 18.8         |
| Buses                     | 0             | 1            | 0            | 1            | 0                            | 6            | 0            | 6            | 2                            | 0            | 0            | 2            | 9            |
| Single-Unit Trucks        | 2             | 7            | 0            | 9            | 2                            | 21           | 0            | 23           | 21                           | 3            | 0            | 24           | 56           |
| Articulated Trucks        | 0             | 5            | 0            | 5            | 0                            | 5            | 0            | 5            | 4                            | 1            | 0            | 5            | 15           |
| <b>Total Entering Leg</b> | <b>2</b>      | <b>13</b>    | <b>0</b>     | <b>15</b>    | <b>2</b>                     | <b>32</b>    | <b>0</b>     | <b>34</b>    | <b>27</b>                    | <b>4</b>     | <b>0</b>     | <b>31</b>    | <b>80</b>    |
| Buses                     |               |              |              | 0            |                              |              |              | 3            |                              |              |              | 6            | 9            |
| Single-Unit Trucks        |               |              |              | 5            |                              |              |              | 28           |                              |              |              | 23           | 56           |
| Articulated Trucks        |               |              |              | 1            |                              |              |              | 9            |                              |              |              | 5            | 15           |
| <b>Total Exiting Leg</b>  |               |              |              | <b>6</b>     |                              |              |              | <b>40</b>    |                              |              |              | <b>34</b>    | <b>80</b>    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

| 12:30 PM | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|          | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                    | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 12:30 PM           | 1             | 1     | 0      | 2     | 1                            | 10    | 0      | 11    | 5                            | 1     | 0      | 6     | 19    |
| 12:45 PM           | 0             | 1     | 0      | 1     | 1                            | 4     | 0      | 5     | 11                           | 1     | 0      | 12    | 18    |
| 1:00 PM            | 0             | 3     | 0      | 3     | 1                            | 6     | 0      | 7     | 2                            | 0     | 0      | 2     | 12    |
| 1:15 PM            | 1             | 2     | 0      | 3     | 1                            | 11    | 0      | 12    | 3                            | 3     | 0      | 6     | 21    |
| Total Volume       | 2             | 7     | 0      | 9     | 4                            | 31    | 0      | 35    | 21                           | 5     | 0      | 26    | 70    |
| % Approach Total   | 22.2          | 77.8  | 0.0    |       | 11.4                         | 88.6  | 0.0    |       | 80.8                         | 19.2  | 0.0    |       |       |
| PHF                | 0.500         | 0.583 | 0.000  | 0.750 | 1.000                        | 0.705 | 0.000  | 0.729 | 0.477                        | 0.417 | 0.000  | 0.542 | 0.833 |
| Buses              | 0             | 0     | 0      | 0     | 1                            | 1     | 0      | 2     | 1                            | 0     | 0      | 1     | 3     |
| Buses %            | 0.0           | 0.0   | 0.0    | 0.0   | 25.0                         | 3.2   | 0.0    | 5.7   | 4.8                          | 0.0   | 0.0    | 3.8   | 4.3   |
| Single-Unit Trucks | 2             | 5     | 0      | 7     | 2                            | 20    | 0      | 22    | 17                           | 5     | 0      | 22    | 51    |
| Single-Unit %      | 100.0         | 71.4  | 0.0    | 77.8  | 50.0                         | 64.5  | 0.0    | 62.9  | 81.0                         | 100.0 | 0.0    | 84.6  | 72.9  |
| Articulated Trucks | 0             | 2     | 0      | 2     | 1                            | 10    | 0      | 11    | 3                            | 0     | 0      | 3     | 16    |
| Articulated %      | 0.0           | 28.6  | 0.0    | 22.2  | 25.0                         | 32.3  | 0.0    | 31.4  | 14.3                         | 0.0   | 0.0    | 11.5  | 22.9  |
| Buses              | 0             | 0     | 0      | 0     | 1                            | 1     | 0      | 2     | 1                            | 0     | 0      | 1     | 3     |
| Single-Unit Trucks | 2             | 5     | 0      | 7     | 2                            | 20    | 0      | 22    | 17                           | 5     | 0      | 22    | 51    |
| Articulated Trucks | 0             | 2     | 0      | 2     | 1                            | 10    | 0      | 11    | 3                            | 0     | 0      | 3     | 16    |
| Total Entering Leg | 2             | 7     | 0      | 9     | 4                            | 31    | 0      | 35    | 21                           | 5     | 0      | 26    | 70    |
| Buses              |               |       |        | 1     |                              |       |        | 1     |                              |       |        | 1     | 3     |
| Single-Unit Trucks |               |       |        | 7     |                              |       |        | 22    |                              |       |        | 22    | 51    |
| Articulated Trucks |               |       |        | 1     |                              |       |        | 5     |                              |       |        | 10    | 16    |
| Total Exiting Leg  |               |       |        | 9     |                              |       |        | 28    |                              |       |        | 33    | 70    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 2:00 PM            | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|--------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                    | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                    | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 2:00 PM            | 1             | 1     | 0      | 2     | 1                            | 6     | 0      | 7     | 2                            | 4     | 0      | 6     | 15    |
| 2:15 PM            | 1             | 3     | 0      | 4     | 2                            | 2     | 0      | 4     | 5                            | 1     | 0      | 6     | 14    |
| 2:30 PM            | 0             | 4     | 0      | 4     | 3                            | 6     | 0      | 9     | 4                            | 0     | 0      | 4     | 17    |
| 2:45 PM            | 0             | 0     | 0      | 0     | 1                            | 8     | 0      | 9     | 4                            | 2     | 0      | 6     | 15    |
| Total Volume       | 2             | 8     | 0      | 10    | 7                            | 22    | 0      | 29    | 15                           | 7     | 0      | 22    | 61    |
| % Approach Total   | 20.0          | 80.0  | 0.0    |       | 24.1                         | 75.9  | 0.0    |       | 68.2                         | 31.8  | 0.0    |       |       |
| PHF                | 0.500         | 0.500 | 0.000  | 0.625 | 0.583                        | 0.688 | 0.000  | 0.806 | 0.750                        | 0.438 | 0.000  | 0.917 | 0.897 |
| Buses              | 0             | 5     | 0      | 5     | 0                            | 2     | 0      | 2     | 3                            | 1     | 0      | 4     | 11    |
| Buses %            | 0.0           | 62.5  | 0.0    | 50.0  | 0.0                          | 9.1   | 0.0    | 6.9   | 20.0                         | 14.3  | 0.0    | 18.2  | 18.0  |
| Single-Unit Trucks | 2             | 3     | 0      | 5     | 5                            | 19    | 0      | 24    | 9                            | 4     | 0      | 13    | 42    |
| Single-Unit %      | 100.0         | 37.5  | 0.0    | 50.0  | 71.4                         | 86.4  | 0.0    | 82.8  | 60.0                         | 57.1  | 0.0    | 59.1  | 68.9  |
| Articulated Trucks | 0             | 0     | 0      | 0     | 2                            | 1     | 0      | 3     | 3                            | 2     | 0      | 5     | 8     |
| Articulated %      | 0.0           | 0.0   | 0.0    | 0.0   | 28.6                         | 4.5   | 0.0    | 10.3  | 20.0                         | 28.6  | 0.0    | 22.7  | 13.1  |
| Buses              | 0             | 5     | 0      | 5     | 0                            | 2     | 0      | 2     | 3                            | 1     | 0      | 4     | 11    |
| Single-Unit Trucks | 2             | 3     | 0      | 5     | 5                            | 19    | 0      | 24    | 9                            | 4     | 0      | 13    | 42    |
| Articulated Trucks | 0             | 0     | 0      | 0     | 2                            | 1     | 0      | 3     | 3                            | 2     | 0      | 5     | 8     |
| Total Entering Leg | 2             | 8     | 0      | 10    | 7                            | 22    | 0      | 29    | 15                           | 7     | 0      | 22    | 61    |
| Buses              |               |       |        | 1     |                              |       |        | 8     |                              |       |        | 2     | 11    |
| Single-Unit Trucks |               |       |        | 9     |                              |       |        | 12    |                              |       |        | 21    | 42    |
| Articulated Trucks |               |       |        | 4     |                              |       |        | 3     |                              |       |        | 1     | 8     |
| Total Exiting Leg  |               |       |        | 14    |                              |       |        | 23    |                              |       |        | 24    | 61    |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|          | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|          | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 6:00 AM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 6:15 AM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 6:30 AM  | 0             | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 1                            | 0    | 0      | 1     | 4     |
| 6:45 AM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| Total    | 0             | 0    | 0      | 0     | 0                            | 4    | 0      | 4     | 1                            | 1    | 0      | 2     | 6     |
| 7:00 AM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1     |
| 7:15 AM  | 0             | 1    | 0      | 1     | 0                            | 2    | 0      | 2     | 1                            | 0    | 0      | 1     | 4     |
| 7:30 AM  | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 2                            | 0    | 0      | 2     | 4     |
| 7:45 AM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total    | 0             | 1    | 0      | 1     | 0                            | 4    | 0      | 4     | 4                            | 0    | 0      | 4     | 9     |
| 8:00 AM  | 2             | 0    | 0      | 2     | 0                            | 3    | 0      | 3     | 1                            | 0    | 0      | 1     | 6     |
| 8:15 AM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 2     |
| 8:30 AM  | 0             | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 2     |
| 8:45 AM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1                            | 0    | 0      | 1     | 2     |
| Total    | 2             | 1    | 0      | 3     | 0                            | 4    | 0      | 4     | 5                            | 0    | 0      | 5     | 12    |
| 9:00 AM  | 0             | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 9:15 AM  | 0             | 0    | 0      | 0     | 0                            | 4    | 0      | 4     | 0                            | 0    | 0      | 0     | 4     |
| 9:30 AM  | 0             | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 2     |
| 9:45 AM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1     |
| Total    | 0             | 2    | 0      | 2     | 0                            | 5    | 0      | 5     | 1                            | 0    | 0      | 1     | 8     |
| 10:00 AM | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1                            | 0    | 0      | 1     | 2     |
| 10:15 AM | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 10:30 AM | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1     |
| 10:45 AM | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total    | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 2                            | 0    | 0      | 2     | 3     |
| 11:00 AM | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1                            | 0    | 0      | 1     | 2     |
| 11:15 AM | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 11:30 AM | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 11:45 AM | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 2     |
| Total    | 0             | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 1                            | 1    | 0      | 2     | 5     |
| 12:00 PM | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 2     |
| 12:15 PM | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 12:30 PM | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 12:45 PM | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1     |
| Total    | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 3                            | 0    | 0      | 3     | 5     |
| 1:00 PM  | 0             | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 1:15 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 1:30 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1     |
| 1:45 PM  | 0             | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| Total    | 0             | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 1                            | 0    | 0      | 1     | 3     |
| 2:00 PM  | 0             | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 1                            | 1    | 0      | 2     | 4     |
| 2:15 PM  | 0             | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 4     |
| 2:30 PM  | 0             | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2     |
| 2:45 PM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| Total    | 0             | 5    | 0      | 5     | 0                            | 2    | 0      | 2     | 3                            | 1    | 0      | 4     | 11    |
| 3:00 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 2     |
| 3:15 PM  | 1             | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 2     |
| 3:30 PM  | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 2     |
| 3:45 PM  | 1             | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 2     |
| Total    | 2             | 0    | 0      | 2     | 0                            | 2    | 0      | 2     | 4                            | 0    | 0      | 4     | 8     |
| 4:00 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2                            | 1    | 0      | 3     | 3     |
| 4:15 PM  | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 2     |
| 4:30 PM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1                            | 0    | 0      | 1     | 2     |
| 4:45 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1     |
| Total    | 0             | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 4                            | 1    | 0      | 5     | 8     |
| 5:00 PM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 5:15 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 2     |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|                    | Cherry Street |          |          |           | Washington Street (Route 16) |           |          |           | Washington Street (Route 16) |          |          |           | Total      |
|--------------------|---------------|----------|----------|-----------|------------------------------|-----------|----------|-----------|------------------------------|----------|----------|-----------|------------|
|                    | from North    |          |          |           | from East                    |           |          |           | from West                    |          |          |           |            |
|                    | Right         | Left     | U-Turn   | Total     | Right                        | Thru      | U-Turn   | Total     | Thru                         | Left     | U-Turn   | Total     |            |
| 5:30 PM            | 0             | 0        | 0        | 0         | 0                            | 2         | 0        | 2         | 0                            | 0        | 0        | 0         | 2          |
| 5:45 PM            | 0             | 0        | 0        | 0         | 0                            | 2         | 0        | 2         | 1                            | 0        | 0        | 1         | 3          |
| <b>Total</b>       | <b>0</b>      | <b>0</b> | <b>0</b> | <b>0</b>  | <b>0</b>                     | <b>5</b>  | <b>0</b> | <b>5</b>  | <b>3</b>                     | <b>0</b> | <b>0</b> | <b>3</b>  | <b>8</b>   |
| 6:00 PM            | 0             | 0        | 0        | 0         | 0                            | 1         | 0        | 1         | 3                            | 0        | 0        | 3         | 4          |
| 6:15 PM            | 0             | 0        | 0        | 0         | 0                            | 1         | 0        | 1         | 0                            | 0        | 0        | 0         | 1          |
| 6:30 PM            | 0             | 0        | 0        | 0         | 0                            | 1         | 0        | 1         | 1                            | 0        | 0        | 1         | 2          |
| 6:45 PM            | 0             | 0        | 0        | 0         | 0                            | 1         | 0        | 1         | 0                            | 0        | 0        | 0         | 1          |
| <b>Total</b>       | <b>0</b>      | <b>0</b> | <b>0</b> | <b>0</b>  | <b>0</b>                     | <b>4</b>  | <b>0</b> | <b>4</b>  | <b>4</b>                     | <b>0</b> | <b>0</b> | <b>4</b>  | <b>8</b>   |
| 7:00 PM            | 0             | 0        | 0        | 0         | 0                            | 0         | 0        | 0         | 1                            | 0        | 0        | 1         | 1          |
| 7:15 PM            | 0             | 0        | 0        | 0         | 0                            | 1         | 0        | 1         | 2                            | 0        | 0        | 2         | 3          |
| 7:30 PM            | 0             | 0        | 0        | 0         | 0                            | 0         | 0        | 0         | 0                            | 0        | 0        | 0         | 0          |
| 7:45 PM            | 0             | 0        | 0        | 0         | 0                            | 1         | 0        | 1         | 1                            | 0        | 0        | 1         | 2          |
| <b>Total</b>       | <b>0</b>      | <b>0</b> | <b>0</b> | <b>0</b>  | <b>0</b>                     | <b>2</b>  | <b>0</b> | <b>2</b>  | <b>4</b>                     | <b>0</b> | <b>0</b> | <b>4</b>  | <b>6</b>   |
| <b>Grand Total</b> | <b>4</b>      | <b>9</b> | <b>0</b> | <b>13</b> | <b>2</b>                     | <b>41</b> | <b>0</b> | <b>43</b> | <b>40</b>                    | <b>4</b> | <b>0</b> | <b>44</b> | <b>100</b> |
| Approach %         | 30.8          | 69.2     | 0.0      |           | 4.7                          | 95.3      | 0.0      |           | 90.9                         | 9.1      | 0.0      |           |            |
| Total %            | 4.0           | 9.0      | 0.0      | 13.0      | 2.0                          | 41.0      | 0.0      | 43.0      | 40.0                         | 4.0      | 0.0      | 44.0      |            |
| Exiting Leg Total  | 6             |          |          |           | 49                           |           |          |           | 45                           |          |          |           | 100        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Cherry Street |          |          |          | Washington Street (Route 16) |          |          |          | Washington Street (Route 16) |          |          |          | Total     |
|---------------------|---------------|----------|----------|----------|------------------------------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|
|                     | from North    |          |          |          | from East                    |          |          |          | from West                    |          |          |          |           |
|                     | Right         | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    | Thru                         | Left     | U-Turn   | Total    |           |
| 7:15 AM             | 0             | 1        | 0        | 1        | 0                            | 2        | 0        | 2        | 1                            | 0        | 0        | 1        | 4         |
| 7:30 AM             | 0             | 0        | 0        | 0        | 0                            | 2        | 0        | 2        | 2                            | 0        | 0        | 2        | 4         |
| 7:45 AM             | 0             | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         |
| 8:00 AM             | 2             | 0        | 0        | 2        | 0                            | 3        | 0        | 3        | 1                            | 0        | 0        | 1        | 6         |
| <b>Total Volume</b> | <b>2</b>      | <b>1</b> | <b>0</b> | <b>3</b> | <b>0</b>                     | <b>7</b> | <b>0</b> | <b>7</b> | <b>4</b>                     | <b>0</b> | <b>0</b> | <b>4</b> | <b>14</b> |
| % Approach Total    | 66.7          | 33.3     | 0.0      |          | 0.0                          | 100.0    | 0.0      |          | 100.0                        | 0.0      | 0.0      |          |           |
| PHF                 | 0.250         | 0.250    | 0.000    | 0.375    | 0.000                        | 0.583    | 0.000    | 0.583    | 0.500                        | 0.000    | 0.000    | 0.500    | 0.583     |
| Entering Leg        | 2             | 1        | 0        | 3        | 0                            | 7        | 0        | 7        | 4                            | 0        | 0        | 4        | 14        |
| Exiting Leg         | 0             |          |          |          | 5                            |          |          |          | 9                            |          |          |          | 14        |
| <b>Total</b>        | <b>3</b>      |          |          |          | <b>12</b>                    |          |          |          | <b>13</b>                    |          |          |          | <b>28</b> |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Cherry Street |          |          |          | Washington Street (Route 16) |          |          |          | Washington Street (Route 16) |          |          |          | Total     |
|---------------------|---------------|----------|----------|----------|------------------------------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|
|                     | from North    |          |          |          | from East                    |          |          |          | from West                    |          |          |          |           |
|                     | Right         | Left     | U-Turn   | Total    | Right                        | Thru     | U-Turn   | Total    | Thru                         | Left     | U-Turn   | Total    |           |
| 1:45 PM             | 0             | 0        | 0        | 0        | 1                            | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 1         |
| 2:00 PM             | 0             | 1        | 0        | 1        | 0                            | 1        | 0        | 1        | 1                            | 1        | 0        | 2        | 4         |
| 2:15 PM             | 0             | 2        | 0        | 2        | 0                            | 0        | 0        | 0        | 2                            | 0        | 0        | 2        | 4         |
| 2:30 PM             | 0             | 2        | 0        | 2        | 0                            | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 2         |
| <b>Total Volume</b> | <b>0</b>      | <b>5</b> | <b>0</b> | <b>5</b> | <b>1</b>                     | <b>1</b> | <b>0</b> | <b>2</b> | <b>3</b>                     | <b>1</b> | <b>0</b> | <b>4</b> | <b>11</b> |
| % Approach Total    | 0.0           | 100.0    | 0.0      |          | 50.0                         | 50.0     | 0.0      |          | 75.0                         | 25.0     | 0.0      |          |           |
| PHF                 | 0.000         | 0.625    | 0.000    | 0.625    | 0.250                        | 0.250    | 0.000    | 0.500    | 0.375                        | 0.250    | 0.000    | 0.500    | 0.688     |
| Entering Leg        | 0             | 5        | 0        | 5        | 1                            | 1        | 0        | 2        | 3                            | 1        | 0        | 4        | 11        |
| Exiting Leg         | 2             |          |          |          | 8                            |          |          |          | 11                           |          |          |          | 11        |
| <b>Total</b>        | <b>7</b>      |          |          |          | <b>10</b>                    |          |          |          | <b>5</b>                     |          |          |          | <b>22</b> |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|---------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|         | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|         | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 2:00 PM | 0             | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 1                            | 1    | 0      | 2     | 4     |
| 2:15 PM | 0             | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 4     |
| 2:30 PM | 0             | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2     |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



Class:

**Buses**

|                  | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 2:45 PM          | 0             | 0     | 0      | 0     | 0                            | 1     | 0      | 1     | 0                            | 0     | 0      | 0     | 1     |
| Total Volume     | 0             | 5     | 0      | 5     | 0                            | 2     | 0      | 2     | 3                            | 1     | 0      | 4     | 11    |
| % Approach Total | 0.0           | 100.0 | 0.0    |       | 0.0                          | 100.0 | 0.0    |       | 75.0                         | 25.0  | 0.0    |       |       |
| PHF              | 0.000         | 0.625 | 0.000  | 0.625 | 0.000                        | 0.500 | 0.000  | 0.500 | 0.375                        | 0.250 | 0.000  | 0.500 | 0.688 |
| Entering Leg     | 0             | 5     | 0      | 5     | 0                            | 2     | 0      | 2     | 3                            | 1     | 0      | 4     | 11    |
| Exiting Leg      |               |       |        | 1     |                              |       |        | 8     |                              |       |        | 2     | 11    |
| Total            |               |       |        | 6     |                              |       |        | 10    |                              |       |        | 6     | 22    |



PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Single-Unit Trucks**

|          | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|          | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 6:00 AM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1                            | 2    | 0      | 3     | 4     |
| 6:15 AM  | 0             | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 3                            | 2    | 0      | 5     | 8     |
| 6:30 AM  | 0             | 2    | 0      | 2     | 0                            | 3    | 0      | 3     | 2                            | 0    | 0      | 2     | 7     |
| 6:45 AM  | 0             | 0    | 0      | 0     | 0                            | 4    | 0      | 4     | 7                            | 2    | 0      | 9     | 13    |
| Total    | 0             | 2    | 0      | 2     | 0                            | 11   | 0      | 11    | 13                           | 6    | 0      | 19    | 32    |
| 7:00 AM  | 0             | 4    | 0      | 4     | 0                            | 2    | 0      | 2     | 3                            | 1    | 0      | 4     | 10    |
| 7:15 AM  | 0             | 3    | 0      | 3     | 0                            | 2    | 0      | 2     | 4                            | 0    | 0      | 4     | 9     |
| 7:30 AM  | 0             | 2    | 0      | 2     | 0                            | 4    | 0      | 4     | 8                            | 1    | 0      | 9     | 15    |
| 7:45 AM  | 0             | 0    | 0      | 0     | 1                            | 3    | 0      | 4     | 1                            | 0    | 0      | 1     | 5     |
| Total    | 0             | 9    | 0      | 9     | 1                            | 11   | 0      | 12    | 16                           | 2    | 0      | 18    | 39    |
| 8:00 AM  | 0             | 6    | 0      | 6     | 0                            | 2    | 0      | 2     | 8                            | 0    | 0      | 8     | 16    |
| 8:15 AM  | 1             | 2    | 0      | 3     | 0                            | 2    | 0      | 2     | 4                            | 1    | 0      | 5     | 10    |
| 8:30 AM  | 0             | 1    | 0      | 1     | 0                            | 6    | 0      | 6     | 4                            | 0    | 0      | 4     | 11    |
| 8:45 AM  | 1             | 1    | 0      | 2     | 0                            | 3    | 0      | 3     | 2                            | 0    | 0      | 2     | 7     |
| Total    | 2             | 10   | 0      | 12    | 0                            | 13   | 0      | 13    | 18                           | 1    | 0      | 19    | 44    |
| 9:00 AM  | 0             | 0    | 0      | 0     | 1                            | 2    | 0      | 3     | 5                            | 1    | 0      | 6     | 9     |
| 9:15 AM  | 1             | 1    | 0      | 2     | 1                            | 0    | 0      | 1     | 7                            | 1    | 0      | 8     | 11    |
| 9:30 AM  | 1             | 1    | 0      | 2     | 0                            | 4    | 0      | 4     | 6                            | 0    | 0      | 6     | 12    |
| 9:45 AM  | 0             | 4    | 0      | 4     | 1                            | 10   | 0      | 11    | 5                            | 2    | 0      | 7     | 22    |
| Total    | 2             | 6    | 0      | 8     | 3                            | 16   | 0      | 19    | 23                           | 4    | 0      | 27    | 54    |
| 10:00 AM | 0             | 1    | 0      | 1     | 0                            | 7    | 0      | 7     | 3                            | 0    | 0      | 3     | 11    |
| 10:15 AM | 1             | 1    | 0      | 2     | 0                            | 4    | 0      | 4     | 2                            | 2    | 0      | 4     | 10    |
| 10:30 AM | 0             | 1    | 0      | 1     | 1                            | 5    | 0      | 6     | 1                            | 2    | 0      | 3     | 10    |
| 10:45 AM | 0             | 1    | 0      | 1     | 1                            | 6    | 0      | 7     | 6                            | 1    | 0      | 7     | 15    |
| Total    | 1             | 4    | 0      | 5     | 2                            | 22   | 0      | 24    | 12                           | 5    | 0      | 17    | 46    |
| 11:00 AM | 0             | 0    | 0      | 0     | 0                            | 4    | 0      | 4     | 8                            | 2    | 0      | 10    | 14    |
| 11:15 AM | 0             | 1    | 0      | 1     | 2                            | 3    | 0      | 5     | 4                            | 0    | 0      | 4     | 10    |
| 11:30 AM | 2             | 2    | 0      | 4     | 0                            | 8    | 0      | 8     | 2                            | 2    | 0      | 4     | 16    |
| 11:45 AM | 0             | 3    | 0      | 3     | 1                            | 3    | 0      | 4     | 0                            | 2    | 0      | 2     | 9     |
| Total    | 2             | 6    | 0      | 8     | 3                            | 18   | 0      | 21    | 14                           | 6    | 0      | 20    | 49    |
| 12:00 PM | 0             | 3    | 0      | 3     | 2                            | 6    | 0      | 8     | 2                            | 0    | 0      | 2     | 13    |
| 12:15 PM | 0             | 0    | 0      | 0     | 0                            | 4    | 0      | 4     | 3                            | 1    | 0      | 4     | 8     |
| 12:30 PM | 1             | 0    | 0      | 1     | 1                            | 8    | 0      | 9     | 4                            | 1    | 0      | 5     | 15    |
| 12:45 PM | 0             | 1    | 0      | 1     | 1                            | 4    | 0      | 5     | 9                            | 1    | 0      | 10    | 16    |
| Total    | 1             | 4    | 0      | 5     | 4                            | 22   | 0      | 26    | 18                           | 3    | 0      | 21    | 52    |
| 1:00 PM  | 0             | 3    | 0      | 3     | 0                            | 3    | 0      | 3     | 2                            | 0    | 0      | 2     | 8     |
| 1:15 PM  | 1             | 1    | 0      | 2     | 0                            | 5    | 0      | 5     | 2                            | 3    | 0      | 5     | 12    |
| 1:30 PM  | 1             | 0    | 0      | 1     | 0                            | 3    | 0      | 3     | 2                            | 2    | 0      | 4     | 8     |
| 1:45 PM  | 0             | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 3                            | 3    | 0      | 6     | 8     |
| Total    | 2             | 5    | 0      | 7     | 0                            | 12   | 0      | 12    | 9                            | 8    | 0      | 17    | 36    |
| 2:00 PM  | 1             | 0    | 0      | 1     | 1                            | 5    | 0      | 6     | 1                            | 2    | 0      | 3     | 10    |
| 2:15 PM  | 1             | 1    | 0      | 2     | 1                            | 2    | 0      | 3     | 2                            | 1    | 0      | 3     | 8     |
| 2:30 PM  | 0             | 2    | 0      | 2     | 2                            | 5    | 0      | 7     | 3                            | 0    | 0      | 3     | 12    |
| 2:45 PM  | 0             | 0    | 0      | 0     | 1                            | 7    | 0      | 8     | 3                            | 1    | 0      | 4     | 12    |
| Total    | 2             | 3    | 0      | 5     | 5                            | 19   | 0      | 24    | 9                            | 4    | 0      | 13    | 42    |
| 3:00 PM  | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 2                            | 0    | 0      | 2     | 4     |
| 3:15 PM  | 0             | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 3     |
| 3:30 PM  | 0             | 1    | 0      | 1     | 1                            | 4    | 0      | 5     | 1                            | 0    | 0      | 1     | 7     |
| 3:45 PM  | 1             | 0    | 0      | 1     | 2                            | 2    | 0      | 4     | 4                            | 0    | 0      | 4     | 9     |
| Total    | 1             | 2    | 0      | 3     | 3                            | 9    | 0      | 12    | 7                            | 1    | 0      | 8     | 23    |
| 4:00 PM  | 0             | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 2                            | 1    | 0      | 3     | 4     |
| 4:15 PM  | 0             | 0    | 0      | 0     | 3                            | 0    | 0      | 3     | 3                            | 1    | 0      | 4     | 7     |
| 4:30 PM  | 0             | 0    | 0      | 0     | 3                            | 2    | 0      | 5     | 3                            | 1    | 0      | 4     | 9     |
| 4:45 PM  | 0             | 1    | 0      | 1     | 3                            | 2    | 0      | 5     | 4                            | 0    | 0      | 4     | 10    |
| Total    | 0             | 1    | 0      | 1     | 10                           | 4    | 0      | 14    | 12                           | 3    | 0      | 15    | 30    |
| 5:00 PM  | 0             | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 1                            | 1    | 0      | 2     | 4     |
| 5:15 PM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 4                            | 0    | 0      | 4     | 5     |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Single-Unit Trucks**

|                    | Cherry Street |           |          |           | Washington Street (Route 16) |            |          |            | Washington Street (Route 16) |           |          |            | Total      |
|--------------------|---------------|-----------|----------|-----------|------------------------------|------------|----------|------------|------------------------------|-----------|----------|------------|------------|
|                    | from North    |           |          |           | from East                    |            |          |            | from West                    |           |          |            |            |
|                    | Right         | Left      | U-Turn   | Total     | Right                        | Thru       | U-Turn   | Total      | Thru                         | Left      | U-Turn   | Total      |            |
| 5:30 PM            | 0             | 0         | 0        | 0         | 1                            | 1          | 0        | 2          | 1                            | 0         | 0        | 1          | 3          |
| 5:45 PM            | 0             | 0         | 0        | 0         | 0                            | 6          | 0        | 6          | 1                            | 1         | 0        | 2          | 8          |
| <b>Total</b>       | <b>0</b>      | <b>0</b>  | <b>0</b> | <b>0</b>  | <b>2</b>                     | <b>9</b>   | <b>0</b> | <b>11</b>  | <b>7</b>                     | <b>2</b>  | <b>0</b> | <b>9</b>   | <b>20</b>  |
| 6:00 PM            | 0             | 0         | 0        | 0         | 0                            | 3          | 0        | 3          | 1                            | 0         | 0        | 1          | 4          |
| 6:15 PM            | 0             | 1         | 0        | 1         | 0                            | 2          | 0        | 2          | 5                            | 1         | 0        | 6          | 9          |
| 6:30 PM            | 0             | 0         | 0        | 0         | 0                            | 1          | 0        | 1          | 2                            | 0         | 0        | 2          | 3          |
| 6:45 PM            | 0             | 0         | 0        | 0         | 1                            | 0          | 0        | 1          | 1                            | 0         | 0        | 1          | 2          |
| <b>Total</b>       | <b>0</b>      | <b>1</b>  | <b>0</b> | <b>1</b>  | <b>1</b>                     | <b>6</b>   | <b>0</b> | <b>7</b>   | <b>9</b>                     | <b>1</b>  | <b>0</b> | <b>10</b>  | <b>18</b>  |
| 7:00 PM            | 0             | 0         | 0        | 0         | 0                            | 2          | 0        | 2          | 0                            | 0         | 0        | 0          | 2          |
| 7:15 PM            | 0             | 0         | 0        | 0         | 0                            | 0          | 0        | 0          | 0                            | 0         | 0        | 0          | 0          |
| 7:30 PM            | 0             | 0         | 0        | 0         | 0                            | 0          | 0        | 0          | 1                            | 1         | 0        | 2          | 2          |
| 7:45 PM            | 0             | 0         | 0        | 0         | 0                            | 0          | 0        | 0          | 0                            | 0         | 0        | 0          | 0          |
| <b>Total</b>       | <b>0</b>      | <b>0</b>  | <b>0</b> | <b>0</b>  | <b>0</b>                     | <b>2</b>   | <b>0</b> | <b>2</b>   | <b>1</b>                     | <b>1</b>  | <b>0</b> | <b>2</b>   | <b>4</b>   |
| <b>Grand Total</b> | <b>13</b>     | <b>53</b> | <b>0</b> | <b>66</b> | <b>34</b>                    | <b>174</b> | <b>0</b> | <b>208</b> | <b>168</b>                   | <b>47</b> | <b>0</b> | <b>215</b> | <b>489</b> |
| Approach %         | 19.7          | 80.3      | 0.0      |           | 16.3                         | 83.7       | 0.0      |            | 78.1                         | 21.9      | 0.0      |            |            |
| Total %            | 2.7           | 10.8      | 0.0      | 13.5      | 7.0                          | 35.6       | 0.0      | 42.5       | 34.4                         | 9.6       | 0.0      | 44.0       |            |
| Exiting Leg Total  | 81            |           |          |           | 221                          |            |          |            | 187                          |           |          |            | 489        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Cherry Street |          |          |          | Washington Street (Route 16) |           |          |           | Washington Street (Route 16) |          |          |           | Total      |
|---------------------|---------------|----------|----------|----------|------------------------------|-----------|----------|-----------|------------------------------|----------|----------|-----------|------------|
|                     | from North    |          |          |          | from East                    |           |          |           | from West                    |          |          |           |            |
|                     | Right         | Left     | U-Turn   | Total    | Right                        | Thru      | U-Turn   | Total     | Thru                         | Left     | U-Turn   | Total     |            |
| 9:15 AM             | 1             | 1        | 0        | 2        | 1                            | 0         | 0        | 1         | 7                            | 1        | 0        | 8         | 11         |
| 9:30 AM             | 1             | 1        | 0        | 2        | 0                            | 4         | 0        | 4         | 6                            | 0        | 0        | 6         | 12         |
| 9:45 AM             | 0             | 4        | 0        | 4        | 1                            | 10        | 0        | 11        | 5                            | 2        | 0        | 7         | 22         |
| 10:00 AM            | 0             | 1        | 0        | 1        | 0                            | 7         | 0        | 7         | 3                            | 0        | 0        | 3         | 11         |
| <b>Total Volume</b> | <b>2</b>      | <b>7</b> | <b>0</b> | <b>9</b> | <b>2</b>                     | <b>21</b> | <b>0</b> | <b>23</b> | <b>21</b>                    | <b>3</b> | <b>0</b> | <b>24</b> | <b>56</b>  |
| % Approach Total    | 22.2          | 77.8     | 0.0      |          | 8.7                          | 91.3      | 0.0      |           | 87.5                         | 12.5     | 0.0      |           |            |
| PHF                 | 0.500         | 0.438    | 0.000    | 0.563    | 0.500                        | 0.525     | 0.000    | 0.523     | 0.750                        | 0.375    | 0.000    | 0.750     | 0.636      |
| Entering Leg        | 2             | 7        | 0        | 9        | 2                            | 21        | 0        | 23        | 21                           | 3        | 0        | 24        | 56         |
| Exiting Leg         | 5             |          |          |          | 28                           |           |          |           | 23                           |          |          |           | 56         |
| <b>Total</b>        | <b>14</b>     |          |          |          | <b>51</b>                    |           |          |           | <b>47</b>                    |          |          |           | <b>112</b> |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Cherry Street |          |          |          | Washington Street (Route 16) |           |          |           | Washington Street (Route 16) |          |          |           | Total      |
|---------------------|---------------|----------|----------|----------|------------------------------|-----------|----------|-----------|------------------------------|----------|----------|-----------|------------|
|                     | from North    |          |          |          | from East                    |           |          |           | from West                    |          |          |           |            |
|                     | Right         | Left     | U-Turn   | Total    | Right                        | Thru      | U-Turn   | Total     | Thru                         | Left     | U-Turn   | Total     |            |
| 10:45 AM            | 0             | 1        | 0        | 1        | 1                            | 6         | 0        | 7         | 6                            | 1        | 0        | 7         | 15         |
| 11:00 AM            | 0             | 0        | 0        | 0        | 0                            | 4         | 0        | 4         | 8                            | 2        | 0        | 10        | 14         |
| 11:15 AM            | 0             | 1        | 0        | 1        | 2                            | 3         | 0        | 5         | 4                            | 0        | 0        | 4         | 10         |
| 11:30 AM            | 2             | 2        | 0        | 4        | 0                            | 8         | 0        | 8         | 2                            | 2        | 0        | 4         | 16         |
| <b>Total Volume</b> | <b>2</b>      | <b>4</b> | <b>0</b> | <b>6</b> | <b>3</b>                     | <b>21</b> | <b>0</b> | <b>24</b> | <b>20</b>                    | <b>5</b> | <b>0</b> | <b>25</b> | <b>55</b>  |
| % Approach Total    | 33.3          | 66.7     | 0.0      |          | 12.5                         | 87.5      | 0.0      |           | 80.0                         | 20.0     | 0.0      |           |            |
| PHF                 | 0.250         | 0.500    | 0.000    | 0.375    | 0.375                        | 0.656     | 0.000    | 0.750     | 0.625                        | 0.625    | 0.000    | 0.625     | 0.859      |
| Entering Leg        | 2             | 4        | 0        | 6        | 3                            | 21        | 0        | 24        | 20                           | 5        | 0        | 25        | 55         |
| Exiting Leg         | 8             |          |          |          | 24                           |           |          |           | 23                           |          |          |           | 55         |
| <b>Total</b>        | <b>14</b>     |          |          |          | <b>48</b>                    |           |          |           | <b>48</b>                    |          |          |           | <b>110</b> |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|---------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|         | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|         | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 2:00 PM | 1             | 0    | 0      | 1     | 1                            | 5    | 0      | 6     | 1                            | 2    | 0      | 3     | 10    |
| 2:15 PM | 1             | 1    | 0      | 2     | 1                            | 2    | 0      | 3     | 2                            | 1    | 0      | 3     | 8     |
| 2:30 PM | 0             | 2    | 0      | 2     | 2                            | 5    | 0      | 7     | 3                            | 0    | 0      | 3     | 12    |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



**Single-Unit Trucks**

|                  | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 2:45 PM          | 0             | 0     | 0      | 0     | 1                            | 7     | 0      | 8     | 3                            | 1     | 0      | 4     | 12    |
| Total Volume     | 2             | 3     | 0      | 5     | 5                            | 19    | 0      | 24    | 9                            | 4     | 0      | 13    | 42    |
| % Approach Total | 40.0          | 60.0  | 0.0    |       | 20.8                         | 79.2  | 0.0    |       | 69.2                         | 30.8  | 0.0    |       |       |
| PHF              | 0.500         | 0.375 | 0.000  | 0.625 | 0.625                        | 0.679 | 0.000  | 0.750 | 0.750                        | 0.500 | 0.000  | 0.813 | 0.875 |
| Entering Leg     | 2             | 3     | 0      | 5     | 5                            | 19    | 0      | 24    | 9                            | 4     | 0      | 13    | 42    |
| Exiting Leg      |               |       |        | 9     |                              |       |        | 12    |                              |       |        | 21    | 42    |
| Total            |               |       |        | 14    |                              |       |        | 36    |                              |       |        | 34    | 84    |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|          | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|----------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|          | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|          | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 6:00 AM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 6:15 AM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 6:30 AM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 2     |
| 6:45 AM  | 0             | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 2     |
| Total    | 0             | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 3                            | 0    | 0      | 3     | 5     |
| 7:00 AM  | 0             | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 7:15 AM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1                            | 1    | 0      | 2     | 3     |
| 7:30 AM  | 1             | 1    | 0      | 2     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2     |
| 7:45 AM  | 0             | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 4                            | 0    | 0      | 4     | 6     |
| Total    | 1             | 4    | 0      | 5     | 0                            | 1    | 0      | 1     | 5                            | 1    | 0      | 6     | 12    |
| 8:00 AM  | 0             | 2    | 0      | 2     | 1                            | 0    | 0      | 1     | 2                            | 0    | 0      | 2     | 5     |
| 8:15 AM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 8:30 AM  | 0             | 1    | 0      | 1     | 0                            | 4    | 0      | 4     | 0                            | 0    | 0      | 0     | 5     |
| 8:45 AM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1                            | 0    | 0      | 1     | 2     |
| Total    | 0             | 3    | 0      | 3     | 1                            | 6    | 0      | 7     | 3                            | 0    | 0      | 3     | 13    |
| 9:00 AM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1     |
| 9:15 AM  | 0             | 2    | 0      | 2     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 3     |
| 9:30 AM  | 0             | 2    | 0      | 2     | 0                            | 1    | 0      | 1     | 1                            | 0    | 0      | 1     | 4     |
| 9:45 AM  | 0             | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 2                            | 1    | 0      | 3     | 5     |
| Total    | 0             | 5    | 0      | 5     | 0                            | 3    | 0      | 3     | 4                            | 1    | 0      | 5     | 13    |
| 10:00 AM | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 1                            | 0    | 0      | 1     | 3     |
| 10:15 AM | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 2     |
| 10:30 AM | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 10:45 AM | 0             | 2    | 0      | 2     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 3     |
| Total    | 0             | 2    | 0      | 2     | 0                            | 4    | 0      | 4     | 3                            | 0    | 0      | 3     | 9     |
| 11:00 AM | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 1                            | 0    | 0      | 1     | 3     |
| 11:15 AM | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 11:30 AM | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 11:45 AM | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| Total    | 0             | 0    | 0      | 0     | 0                            | 4    | 0      | 4     | 1                            | 1    | 0      | 2     | 6     |
| 12:00 PM | 1             | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 3     |
| 12:15 PM | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 2     |
| 12:30 PM | 0             | 1    | 0      | 1     | 0                            | 1    | 0      | 1     | 1                            | 0    | 0      | 1     | 3     |
| 12:45 PM | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1     |
| Total    | 1             | 1    | 0      | 2     | 0                            | 3    | 0      | 3     | 4                            | 0    | 0      | 4     | 9     |
| 1:00 PM  | 0             | 0    | 0      | 0     | 0                            | 3    | 0      | 3     | 0                            | 0    | 0      | 0     | 3     |
| 1:15 PM  | 0             | 1    | 0      | 1     | 1                            | 6    | 0      | 7     | 1                            | 0    | 0      | 1     | 9     |
| 1:30 PM  | 0             | 1    | 0      | 1     | 1                            | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 2     |
| 1:45 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 2     |
| Total    | 0             | 2    | 0      | 2     | 2                            | 9    | 0      | 11    | 1                            | 2    | 0      | 3     | 16    |
| 2:00 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 1     |
| 2:15 PM  | 0             | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1                            | 0    | 0      | 1     | 2     |
| 2:30 PM  | 0             | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 1                            | 0    | 0      | 1     | 3     |
| 2:45 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 2     |
| Total    | 0             | 0    | 0      | 0     | 2                            | 1    | 0      | 3     | 3                            | 2    | 0      | 5     | 8     |
| 3:00 PM  | 1             | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1     |
| 3:15 PM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 3:30 PM  | 0             | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1                            | 0    | 0      | 1     | 2     |
| 3:45 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total    | 1             | 0    | 0      | 1     | 1                            | 1    | 0      | 2     | 1                            | 0    | 0      | 1     | 4     |
| 4:00 PM  | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 3                            | 0    | 0      | 3     | 3     |
| 4:15 PM  | 0             | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 1                            | 0    | 0      | 1     | 3     |
| 4:30 PM  | 0             | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 4:45 PM  | 0             | 1    | 0      | 1     | 6                            | 0    | 0      | 6     | 0                            | 0    | 0      | 0     | 7     |
| Total    | 0             | 1    | 0      | 1     | 8                            | 1    | 0      | 9     | 4                            | 0    | 0      | 4     | 14    |
| 5:00 PM  | 0             | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 5:15 PM  | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|                   | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|-------------------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|                   | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|                   | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 5:30 PM           | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 5:45 PM           | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 1     |
| Total             | 0             | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 1                            | 0    | 0      | 1     | 3     |
| 6:00 PM           | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 6:15 PM           | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 6:30 PM           | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 2     |
| 6:45 PM           | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| Total             | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 2                            | 0    | 0      | 2     | 2     |
| 7:00 PM           | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 7:15 PM           | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 0     |
| 7:30 PM           | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| 7:45 PM           | 0             | 0    | 0      | 0     | 0                            | 1    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |
| Total             | 0             | 0    | 0      | 0     | 0                            | 2    | 0      | 2     | 0                            | 0    | 0      | 0     | 2     |
| Grand Total       | 3             | 19   | 0      | 22    | 15                           | 37   | 0      | 52    | 35                           | 7    | 0      | 42    | 116   |
| Approach %        | 13.6          | 86.4 | 0.0    |       | 28.8                         | 71.2 | 0.0    |       | 83.3                         | 16.7 | 0.0    |       |       |
| Total %           | 2.6           | 16.4 | 0.0    | 19.0  | 12.9                         | 31.9 | 0.0    | 44.8  | 30.2                         | 6.0  | 0.0    | 36.2  |       |
| Exiting Leg Total | 22            |      |        |       | 54                           |      |        |       | 40                           |      |        |       | 116   |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

| 7:45 AM          | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 7:45 AM          | 0             | 2     | 0      | 2     | 0                            | 0     | 0      | 0     | 4                            | 0     | 0      | 4     | 6     |
| 8:00 AM          | 0             | 2     | 0      | 2     | 1                            | 0     | 0      | 1     | 2                            | 0     | 0      | 2     | 5     |
| 8:15 AM          | 0             | 0     | 0      | 0     | 0                            | 1     | 0      | 1     | 0                            | 0     | 0      | 0     | 1     |
| 8:30 AM          | 0             | 1     | 0      | 1     | 0                            | 4     | 0      | 4     | 0                            | 0     | 0      | 0     | 5     |
| Total Volume     | 0             | 5     | 0      | 5     | 1                            | 5     | 0      | 6     | 6                            | 0     | 0      | 6     | 17    |
| % Approach Total | 0.0           | 100.0 | 0.0    |       | 16.7                         | 83.3  | 0.0    |       | 100.0                        | 0.0   | 0.0    |       |       |
| PHF              | 0.000         | 0.625 | 0.000  | 0.625 | 0.250                        | 0.313 | 0.000  | 0.375 | 0.375                        | 0.000 | 0.000  | 0.375 | 0.708 |
| Entering Leg     | 0             | 5     | 0      | 5     | 1                            | 5     | 0      | 6     | 6                            | 0     | 0      | 6     | 17    |
| Exiting Leg      | 1             |       |        |       | 11                           |       |        |       | 5                            |       |        |       | 17    |
| Total            | 6             |       |        |       | 17                           |       |        |       | 11                           |       |        |       | 34    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

| 12:30 PM         | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 12:30 PM         | 0             | 1     | 0      | 1     | 0                            | 1     | 0      | 1     | 1                            | 0     | 0      | 1     | 3     |
| 12:45 PM         | 0             | 0     | 0      | 0     | 0                            | 0     | 0      | 0     | 1                            | 0     | 0      | 1     | 1     |
| 1:00 PM          | 0             | 0     | 0      | 0     | 0                            | 3     | 0      | 3     | 0                            | 0     | 0      | 0     | 3     |
| 1:15 PM          | 0             | 1     | 0      | 1     | 1                            | 6     | 0      | 7     | 1                            | 0     | 0      | 1     | 9     |
| Total Volume     | 0             | 2     | 0      | 2     | 1                            | 10    | 0      | 11    | 3                            | 0     | 0      | 3     | 16    |
| % Approach Total | 0.0           | 100.0 | 0.0    |       | 9.1                          | 90.9  | 0.0    |       | 100.0                        | 0.0   | 0.0    |       |       |
| PHF              | 0.000         | 0.500 | 0.000  | 0.500 | 0.250                        | 0.417 | 0.000  | 0.393 | 0.750                        | 0.000 | 0.000  | 0.750 | 0.444 |
| Entering Leg     | 0             | 2     | 0      | 2     | 1                            | 10    | 0      | 11    | 3                            | 0     | 0      | 3     | 16    |
| Exiting Leg      | 1             |       |        |       | 5                            |       |        |       | 10                           |       |        |       | 16    |
| Total            | 3             |       |        |       | 16                           |       |        |       | 13                           |       |        |       | 32    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 4:00 PM | Cherry Street |      |        |       | Washington Street (Route 16) |      |        |       | Washington Street (Route 16) |      |        |       | Total |
|---------|---------------|------|--------|-------|------------------------------|------|--------|-------|------------------------------|------|--------|-------|-------|
|         | from North    |      |        |       | from East                    |      |        |       | from West                    |      |        |       |       |
|         | Right         | Left | U-Turn | Total | Right                        | Thru | U-Turn | Total | Thru                         | Left | U-Turn | Total |       |
| 4:00 PM | 0             | 0    | 0      | 0     | 0                            | 0    | 0      | 0     | 3                            | 0    | 0      | 3     | 3     |
| 4:15 PM | 0             | 0    | 0      | 0     | 1                            | 1    | 0      | 2     | 1                            | 0    | 0      | 1     | 3     |
| 4:30 PM | 0             | 0    | 0      | 0     | 1                            | 0    | 0      | 1     | 0                            | 0    | 0      | 0     | 1     |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



Class:

**Articulated Trucks**

|                  | Cherry Street |       |        |       | Washington Street (Route 16) |       |        |       | Washington Street (Route 16) |       |        |       | Total |
|------------------|---------------|-------|--------|-------|------------------------------|-------|--------|-------|------------------------------|-------|--------|-------|-------|
|                  | from North    |       |        |       | from East                    |       |        |       | from West                    |       |        |       |       |
|                  | Right         | Left  | U-Turn | Total | Right                        | Thru  | U-Turn | Total | Thru                         | Left  | U-Turn | Total |       |
| 4:45 PM          | 0             | 1     | 0      | 1     | 6                            | 0     | 0      | 6     | 0                            | 0     | 0      | 0     | 7     |
| Total Volume     | 0             | 1     | 0      | 1     | 8                            | 1     | 0      | 9     | 4                            | 0     | 0      | 4     | 14    |
| % Approach Total | 0.0           | 100.0 | 0.0    |       | 88.9                         | 11.1  | 0.0    |       | 100.0                        | 0.0   | 0.0    |       |       |
| PHF              | 0.000         | 0.250 | 0.000  | 0.250 | 0.333                        | 0.250 | 0.000  | 0.375 | 0.333                        | 0.000 | 0.000  | 0.333 | 0.500 |
| Entering Leg     | 0             | 1     | 0      | 1     | 8                            | 1     | 0      | 9     | 4                            | 0     | 0      | 4     | 14    |
| Exiting Leg      |               |       |        | 8     |                              |       |        | 5     |                              |       |        | 1     | 14    |
| Total            |               |       |        | 9     |                              |       |        | 14    |                              |       |        | 5     | 28    |

PDI File #: 218212 D  
 Location: N: Cherry Street  
 Location: E: Washington St (Rt 16) W: Washington St (Rt 16)  
 City, State: West Newton, MA  
 Client: BETA/J. Centracchio  
 Site Code: 5472-14  
 Count Date: Tuesday, October 19, 2021  
 Start Time: 6:00 AM  
 End Time: 8:00 PM



**Bicycles (on Roadway and Crosswalks)**

|          | Cherry Street |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |
|----------|---------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|
|          | from North    |      |        |       |       |       | from East                    |      |        |       |       |       | from West                    |      |        |       |       |       |       |
|          | Right         | Left | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 6:00 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 6:15 AM  | 0             | 1    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 6:30 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 6:45 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| Total    | 0             | 1    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:00 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:15 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 7:30 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 7:45 AM  | 0             | 1    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| Total    | 0             | 1    | 0      | 0     | 0     | 1     | 0                            | 1    | 0      | 0     | 0     | 1     | 1                            | 0    | 0      | 0     | 0     | 0     | 3     |
| 8:00 AM  | 0             | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 2                            | 0    | 0      | 1     | 0     | 3     | 4     |
| 8:15 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 1     | 1                            | 0    | 0      | 0     | 0     | 1     | 2     |
| 8:30 AM  | 0             | 2    | 0      | 0     | 0     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 8:45 AM  | 0             | 1    | 0      | 0     | 0     | 1     | 1                            | 1    | 0      | 0     | 2     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| Total    | 0             | 3    | 0      | 1     | 0     | 4     | 2                            | 1    | 0      | 0     | 3     | 3     | 0                            | 0    | 1      | 0     | 0     | 4     | 11    |
| 9:00 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 9:15 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 9:30 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 1     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 9:45 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| Total    | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 1     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 10:00 AM | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 10:15 AM | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 10:30 AM | 0             | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 10:45 AM | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| Total    | 0             | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 11:00 AM | 1             | 1    | 0      | 0     | 0     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 11:15 AM | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 11:30 AM | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 1     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 11:45 AM | 0             | 1    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| Total    | 1             | 2    | 0      | 0     | 0     | 3     | 0                            | 1    | 0      | 0     | 1     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 4     |
| 12:00 PM | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 1     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 12:15 PM | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 12:30 PM | 0             | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 1     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 12:45 PM | 1             | 0    | 0      | 0     | 1     | 2     | 2                            | 0    | 0      | 0     | 2     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 4     |
| Total    | 1             | 0    | 0      | 0     | 1     | 2     | 3                            | 1    | 0      | 0     | 4     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 6     |
| 1:00 PM  | 0             | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 1:15 PM  | 0             | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 1:30 PM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 1     | 1     |
| 1:45 PM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| Total    | 0             | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 1     | 3     |
| 2:00 PM  | 0             | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 2:15 PM  | 0             | 1    | 0      | 0     | 0     | 1     | 1                            | 0    | 0      | 0     | 1     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 2:30 PM  | 1             | 0    | 0      | 0     | 2     | 3     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 3     |
| 2:45 PM  | 0             | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| Total    | 1             | 1    | 0      | 1     | 3     | 6     | 1                            | 0    | 0      | 0     | 1     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 7     |
| 3:00 PM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     |
| 3:15 PM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 1     | 1     |
| 3:30 PM  | 0             | 1    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 1     | 2     |
| 3:45 PM  | 0             | 0    | 0      | 5     | 0     | 5     | 0                            | 1    | 0      | 0     | 1     | 0     | 0                            | 0    | 0      | 1     | 0     | 1     | 7     |
| Total    | 0             | 1    | 0      | 5     | 0     | 6     | 0                            | 1    | 0      | 0     | 1     | 2     | 0                            | 0    | 0      | 1     | 0     | 3     | 10    |
| 4:00 PM  | 0             | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 4:15 PM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 1     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1     |
| 4:30 PM  | 0             | 0    | 0      | 0     | 0     | 0     | 2                            | 0    | 0      | 0     | 2     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 2     |
| 4:45 PM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 1     | 2     |
| Total    | 0             | 0    | 0      | 0     | 2     | 2     | 2                            | 2    | 0      | 0     | 4     | 1     | 0                            | 0    | 0      | 0     | 0     | 1     | 7     |
| 5:00 PM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 1     | 1     |
| 5:15 PM  | 1             | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 1      | 0     | 0     | 2     | 3     |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Bicycles (on Roadway and Crosswalks)**

|                    | Cherry Street |           |          |           |           |           | Washington Street (Route 16) |           |          |          |          |           | Washington Street (Route 16) |          |          |          |          |           | Total     |
|--------------------|---------------|-----------|----------|-----------|-----------|-----------|------------------------------|-----------|----------|----------|----------|-----------|------------------------------|----------|----------|----------|----------|-----------|-----------|
|                    | from North    |           |          |           |           |           | from East                    |           |          |          |          |           | from West                    |          |          |          |          |           |           |
|                    | Right         | Left      | U-Turn   | CW-EB     | CW-WB     | Total     | Right                        | Thru      | U-Turn   | CW-SB    | CW-NB    | Total     | Thru                         | Left     | U-Turn   | CW-NB    | CW-SB    | Total     |           |
| 5:30 PM            | 0             | 0         | 0        | 0         | 0         | 0         | 0                            | 2         | 0        | 0        | 0        | 2         | 0                            | 0        | 0        | 0        | 0        | 0         | 2         |
| 5:45 PM            | 0             | 1         | 0        | 0         | 0         | 1         | 0                            | 1         | 0        | 0        | 0        | 1         | 1                            | 0        | 0        | 0        | 0        | 1         | 3         |
| <b>Total</b>       | <b>1</b>      | <b>1</b>  | <b>0</b> | <b>0</b>  | <b>0</b>  | <b>2</b>  | <b>0</b>                     | <b>3</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b>  | <b>3</b>                     | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b> | <b>4</b>  | <b>9</b>  |
| 6:00 PM            | 0             | 0         | 0        | 1         | 0         | 1         | 0                            | 0         | 0        | 0        | 0        | 0         | 1                            | 0        | 0        | 0        | 0        | 1         | 2         |
| 6:15 PM            | 0             | 0         | 0        | 0         | 2         | 2         | 0                            | 0         | 0        | 0        | 0        | 0         | 1                            | 0        | 0        | 0        | 0        | 1         | 3         |
| 6:30 PM            | 0             | 0         | 0        | 0         | 0         | 0         | 0                            | 0         | 0        | 0        | 0        | 0         | 0                            | 0        | 0        | 0        | 0        | 0         | 0         |
| 6:45 PM            | 0             | 0         | 0        | 0         | 0         | 0         | 0                            | 0         | 0        | 0        | 0        | 0         | 0                            | 0        | 0        | 0        | 1        | 1         | 1         |
| <b>Total</b>       | <b>0</b>      | <b>0</b>  | <b>0</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>0</b>                     | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>  | <b>2</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>3</b>  | <b>6</b>  |
| 7:00 PM            | 0             | 0         | 0        | 0         | 1         | 1         | 0                            | 0         | 0        | 0        | 0        | 0         | 0                            | 0        | 0        | 0        | 0        | 0         | 1         |
| 7:15 PM            | 0             | 1         | 0        | 0         | 0         | 1         | 0                            | 0         | 0        | 0        | 0        | 0         | 0                            | 0        | 0        | 0        | 0        | 0         | 1         |
| 7:30 PM            | 0             | 0         | 0        | 0         | 0         | 0         | 0                            | 0         | 0        | 0        | 0        | 0         | 0                            | 0        | 0        | 0        | 0        | 0         | 0         |
| 7:45 PM            | 0             | 0         | 0        | 0         | 0         | 0         | 0                            | 0         | 0        | 0        | 0        | 0         | 0                            | 0        | 0        | 0        | 0        | 0         | 0         |
| <b>Total</b>       | <b>0</b>      | <b>1</b>  | <b>0</b> | <b>0</b>  | <b>1</b>  | <b>2</b>  | <b>0</b>                     | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>  | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>  | <b>2</b>  |
| <b>Grand Total</b> | <b>4</b>      | <b>11</b> | <b>0</b> | <b>10</b> | <b>11</b> | <b>36</b> | <b>8</b>                     | <b>11</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>19</b> | <b>13</b>                    | <b>0</b> | <b>0</b> | <b>2</b> | <b>2</b> | <b>17</b> | <b>72</b> |
| Approach %         | 11.1          | 30.6      | 0.0      | 27.8      | 30.6      |           | 42.1                         | 57.9      | 0.0      | 0.0      | 0.0      |           | 76.5                         | 0.0      | 0.0      | 11.8     | 11.8     |           |           |
| Total %            | 5.6           | 15.3      | 0.0      | 13.9      | 15.3      | 50.0      | 11.1                         | 15.3      | 0.0      | 0.0      | 0.0      | 26.4      | 18.1                         | 0.0      | 0.0      | 2.8      | 2.8      | 23.6      |           |
| Exiting Leg Total  | 29            |           |          |           |           |           | 24                           |           |          |          |          |           | 19                           |          |          |          |          |           | 72        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

| 8:00 AM             | Cherry Street |          |          |          |          |          | Washington Street (Route 16) |          |          |          |          |          | Washington Street (Route 16) |          |          |          |          |          | Total     |
|---------------------|---------------|----------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|----------|-----------|
|                     | from North    |          |          |          |          |          | from East                    |          |          |          |          |          | from West                    |          |          |          |          |          |           |
|                     | Right         | Left     | U-Turn   | CW-EB    | CW-WB    | Total    | Right                        | Thru     | U-Turn   | CW-SB    | CW-NB    | Total    | Thru                         | Left     | U-Turn   | CW-NB    | CW-SB    | Total    |           |
| 8:00 AM             | 0             | 0        | 0        | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 0        | 2                            | 0        | 0        | 1        | 0        | 3        | 4         |
| 8:15 AM             | 0             | 0        | 0        | 0        | 0        | 0        | 1                            | 0        | 0        | 0        | 0        | 1        | 1                            | 0        | 0        | 0        | 0        | 1        | 2         |
| 8:30 AM             | 0             | 2        | 0        | 0        | 0        | 2        | 0                            | 0        | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        | 2         |
| 8:45 AM             | 0             | 1        | 0        | 0        | 0        | 1        | 1                            | 1        | 0        | 0        | 0        | 2        | 0                            | 0        | 0        | 0        | 0        | 0        | 3         |
| <b>Total Volume</b> | <b>0</b>      | <b>3</b> | <b>0</b> | <b>1</b> | <b>0</b> | <b>4</b> | <b>2</b>                     | <b>1</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b> | <b>3</b>                     | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b> | <b>4</b> | <b>11</b> |
| % Approach Total    | 0.0           | 75.0     | 0.0      | 25.0     | 0.0      |          | 66.7                         | 33.3     | 0.0      | 0.0      | 0.0      |          | 75.0                         | 0.0      | 0.0      | 25.0     | 0.0      |          |           |
| PHF                 | 0.000         | 0.375    | 0.000    | 0.250    | 0.000    | 0.500    | 0.500                        | 0.250    | 0.000    | 0.000    | 0.000    | 0.375    | 0.375                        | 0.000    | 0.000    | 0.250    | 0.000    | 0.333    | 0.688     |
| Entering Leg        | 0             | 3        | 0        | 1        | 0        | 4        | 2                            | 1        | 0        | 0        | 0        | 3        | 3                            | 0        | 0        | 1        | 0        | 4        | 11        |
| Exiting Leg         | 3             |          |          |          |          |          | 6                            |          |          |          |          |          | 2                            |          |          |          |          |          | 11        |
| <b>Total</b>        | <b>7</b>      |          |          |          |          |          | <b>9</b>                     |          |          |          |          |          | <b>6</b>                     |          |          |          |          |          | <b>22</b> |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

| 12:30 PM            | Cherry Street |          |          |          |          |          | Washington Street (Route 16) |          |          |          |          |          | Washington Street (Route 16) |          |          |          |          |          | Total     |
|---------------------|---------------|----------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|----------|-----------|
|                     | from North    |          |          |          |          |          | from East                    |          |          |          |          |          | from West                    |          |          |          |          |          |           |
|                     | Right         | Left     | U-Turn   | CW-EB    | CW-WB    | Total    | Right                        | Thru     | U-Turn   | CW-SB    | CW-NB    | Total    | Thru                         | Left     | U-Turn   | CW-NB    | CW-SB    | Total    |           |
| 12:30 PM            | 0             | 0        | 0        | 0        | 0        | 0        | 1                            | 0        | 0        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 0        | 1         |
| 12:45 PM            | 1             | 0        | 0        | 0        | 1        | 2        | 2                            | 0        | 0        | 0        | 0        | 2        | 0                            | 0        | 0        | 0        | 0        | 0        | 4         |
| 1:00 PM             | 0             | 0        | 0        | 1        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        | 1         |
| 1:15 PM             | 0             | 0        | 0        | 0        | 1        | 1        | 0                            | 0        | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0        | 1         |
| <b>Total Volume</b> | <b>1</b>      | <b>0</b> | <b>0</b> | <b>1</b> | <b>2</b> | <b>4</b> | <b>3</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>  |
| % Approach Total    | 25.0          | 0.0      | 0.0      | 25.0     | 50.0     |          | 100.0                        | 0.0      | 0.0      | 0.0      | 0.0      |          | 0.0                          | 0.0      | 0.0      | 0.0      | 0.0      |          |           |
| PHF                 | 0.250         | 0.000    | 0.000    | 0.250    | 0.500    | 0.500    | 0.375                        | 0.000    | 0.000    | 0.000    | 0.000    | 0.375    | 0.000                        | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.438     |
| Entering Leg        | 1             | 0        | 0        | 1        | 2        | 4        | 3                            | 0        | 0        | 0        | 0        | 3        | 0                            | 0        | 0        | 0        | 0        | 0        | 7         |
| Exiting Leg         | 6             |          |          |          |          |          | 0                            |          |          |          |          |          | 1                            |          |          |          |          |          | 7         |
| <b>Total</b>        | <b>10</b>     |          |          |          |          |          | <b>3</b>                     |          |          |          |          |          | <b>1</b>                     |          |          |          |          |          | <b>14</b> |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 3:15 PM | Cherry Street |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |
|---------|---------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|
|         | from North    |      |        |       |       |       | from East                    |      |        |       |       |       | from West                    |      |        |       |       |       |       |
|         | Right         | Left | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 3:15 PM | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 1     | 1     |
| 3:30 PM | 0             | 1    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0      | 0     | 0     | 1     | 2     |
| 3:45 PM | 0             | 0    | 0      | 5     | 0     | 5     | 0                            | 1    | 0      | 0     | 0     | 1     | 0                            | 0    | 0      | 0     | 1     | 1     | 7     |



PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**



**Bicycles (on Roadway and Crosswalks)**

|                  | Cherry Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |       |
|------------------|---------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|-------|
|                  | from North    |       |        |       |       |       | from East                    |       |        |       |       |       | from West                    |       |        |       |       |       |       |       |
|                  | Right         | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left  | U-Turn | CW-NB | CW-SB | Total |       |       |
| 4:00 PM          | 0             | 0     | 0      | 0     | 2     | 2     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 0     | 2     |
| Total Volume     | 0             | 1     | 0      | 5     | 2     | 8     | 0                            | 1     | 0      | 0     | 0     | 1     | 2                            | 0     | 0      | 0     | 1     | 3     | 3     | 12    |
| % Approach Total | 0.0           | 12.5  | 0.0    | 62.5  | 25.0  |       | 0.0                          | 100.0 | 0.0    | 0.0   | 0.0   |       | 66.7                         | 0.0   | 0.0    | 0.0   | 33.3  |       |       |       |
| PHF              | 0.000         | 0.250 | 0.000  | 0.250 | 0.250 | 0.400 | 0.000                        | 0.250 | 0.000  | 0.000 | 0.000 | 0.250 | 0.500                        | 0.000 | 0.000  | 0.000 | 0.250 | 0.750 |       | 0.429 |
| Entering Leg     | 0             | 1     | 0      | 5     | 2     | 8     | 0                            | 1     | 0      | 0     | 0     | 1     | 2                            | 0     | 0      | 0     | 1     | 3     | 3     | 12    |
| Exiting Leg      |               |       |        |       |       | 7     |                              |       |        |       |       | 3     |                              |       |        |       |       |       | 2     | 12    |
| Total            |               |       |        |       |       | 15    |                              |       |        |       |       | 4     |                              |       |        |       |       | 5     |       | 24    |

PDI File #: 218212 D  
 Location: N: Cherry Street  
 Location: E: Washington St (Rt 16) W: Washington St (Rt 16)  
 City, State: West Newton, MA  
 Client: BETA/J. Centracchio  
 Site Code: 5472-14  
 Count Date: Tuesday, October 19, 2021  
 Start Time: 6:00 AM  
 End Time: 8:00 PM  
 Class:



**Pedestrians**

|          | Cherry Street |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |    |
|----------|---------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|----|
|          | from North    |      |        |       |       |       | from East                    |      |        |       |       |       | from West                    |      |        |       |       |       |       |    |
|          | Right         | Left | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left | U-Turn | CW-NB | CW-SB | Total |       |    |
| 6:00 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 2     | 2                            | 0    | 0      | 0     | 1     | 1     | 2     | 4  |
| 6:15 AM  | 0             | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 1     | 1     | 1     | 2  |
| 6:30 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0  |
| 6:45 AM  | 0             | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1  |
| Total    | 0             | 0    | 0      | 2     | 0     | 2     | 0                            | 0    | 0      | 0     | 0     | 2     | 2                            | 0    | 0      | 0     | 1     | 2     | 3     | 7  |
| 7:00 AM  | 0             | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1     | 0     | 1     | 2     | 2  |
| 7:15 AM  | 0             | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 1     | 1     | 1     | 3  |
| 7:30 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0  |
| 7:45 AM  | 0             | 0    | 0      | 2     | 0     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 2  |
| Total    | 0             | 0    | 0      | 3     | 2     | 5     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1     | 1     | 2     | 4     | 7  |
| 8:00 AM  | 0             | 0    | 0      | 2     | 0     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 1     | 1     | 1     | 3  |
| 8:15 AM  | 0             | 0    | 0      | 0     | 3     | 3     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 3     | 3     | 3     | 6  |
| 8:30 AM  | 0             | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 2     | 2     | 2     | 4     | 5  |
| 8:45 AM  | 0             | 0    | 0      | 2     | 1     | 3     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 2     | 2     | 2     | 4     | 7  |
| Total    | 0             | 0    | 0      | 4     | 5     | 9     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 4     | 8     | 12    | 21    | 21 |
| 9:00 AM  | 0             | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 2  |
| 9:15 AM  | 0             | 0    | 0      | 2     | 1     | 3     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 3  |
| 9:30 AM  | 0             | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1  |
| 9:45 AM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0  |
| Total    | 0             | 0    | 0      | 2     | 4     | 6     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 6  |
| 10:00 AM | 0             | 0    | 0      | 4     | 2     | 6     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 6  |
| 10:15 AM | 0             | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1     | 0     | 1     | 2     | 2  |
| 10:30 AM | 0             | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1  |
| 10:45 AM | 0             | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1  |
| Total    | 0             | 0    | 0      | 6     | 3     | 9     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1     | 0     | 1     | 10    | 10 |
| 11:00 AM | 0             | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1     | 0     | 1     | 3     | 3  |
| 11:15 AM | 0             | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1  |
| 11:30 AM | 0             | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1     | 1     | 1     | 2     | 2  |
| 11:45 AM | 0             | 0    | 0      | 2     | 1     | 3     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 3     | 0     | 3     | 6     | 6  |
| Total    | 0             | 0    | 0      | 3     | 4     | 7     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 4     | 1     | 5     | 12    | 12 |
| 12:00 PM | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0  |
| 12:15 PM | 0             | 0    | 0      | 3     | 2     | 5     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1     | 0     | 1     | 6     | 6  |
| 12:30 PM | 0             | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1  |
| 12:45 PM | 0             | 0    | 0      | 4     | 1     | 5     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 1     | 1     | 2     | 7     | 7  |
| Total    | 0             | 0    | 0      | 7     | 4     | 11    | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 2     | 1     | 3     | 14    | 14 |
| 1:00 PM  | 0             | 0    | 0      | 3     | 2     | 5     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 5  |
| 1:15 PM  | 0             | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1  |
| 1:30 PM  | 0             | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 1  |
| 1:45 PM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 0  |
| Total    | 0             | 0    | 0      | 4     | 3     | 7     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 7  |
| 2:00 PM  | 0             | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 2  |
| 2:15 PM  | 0             | 0    | 0      | 3     | 1     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 1     | 1     | 5     | 5  |
| 2:30 PM  | 0             | 0    | 0      | 3     | 3     | 6     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 6  |
| 2:45 PM  | 0             | 0    | 0      | 1     | 2     | 3     | 0                            | 0    | 0      | 1     | 0     | 1     | 1                            | 0    | 0      | 0     | 0     | 0     | 0     | 4  |
| Total    | 0             | 0    | 0      | 7     | 8     | 15    | 0                            | 0    | 0      | 1     | 0     | 1     | 1                            | 0    | 0      | 0     | 1     | 1     | 17    | 17 |
| 3:00 PM  | 0             | 0    | 0      | 6     | 2     | 8     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 8  |
| 3:15 PM  | 0             | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 3     | 1     | 4     | 6     | 6  |
| 3:30 PM  | 0             | 0    | 0      | 3     | 1     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 3     | 3     | 7     | 7  |
| 3:45 PM  | 0             | 0    | 0      | 2     | 1     | 3     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 1     | 1     | 4     | 4  |
| Total    | 0             | 0    | 0      | 12    | 5     | 17    | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 3     | 5     | 8     | 25    | 25 |
| 4:00 PM  | 0             | 0    | 0      | 1     | 5     | 6     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 2     | 0     | 2     | 8     | 8  |
| 4:15 PM  | 0             | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 2  |
| 4:30 PM  | 0             | 0    | 0      | 3     | 0     | 3     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0     | 3  |
| 4:45 PM  | 0             | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 3     | 3     | 5     | 5  |
| Total    | 0             | 0    | 0      | 5     | 8     | 13    | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 2     | 3     | 5     | 18    | 18 |
| 5:00 PM  | 0             | 0    | 0      | 1     | 3     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 5     | 2     | 7     | 11    | 11 |
| 5:15 PM  | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 3     | 3     | 6     | 6     | 6  |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class: **Pedestrians**



|                   | Cherry Street |      |        |        |        |        | Washington Street (Route 16) |      |        |        |        |        | Washington Street (Route 16) |      |        |        |        |        | Total |
|-------------------|---------------|------|--------|--------|--------|--------|------------------------------|------|--------|--------|--------|--------|------------------------------|------|--------|--------|--------|--------|-------|
|                   | from North    |      |        |        |        |        | from East                    |      |        |        |        |        | from West                    |      |        |        |        |        |       |
|                   | Right         | Left | U-Turn | CW-EB  | CW-WB  | Total  | Right                        | Thru | U-Turn | CW-SB  | CW-NB  | Total  | Thru                         | Left | U-Turn | CW-NB  | CW-SB  | Total  |       |
| 5:30 PM           | 0             | 0    | 0      | 1      | 0      | 1      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 5      | 0      | 5      | 6     |
| 5:45 PM           | 0             | 0    | 0      | 1      | 1      | 2      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 0      | 0      | 2     |
| Total             | 0             | 0    | 0      | 3      | 4      | 7      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 13     | 5      | 18     | 25    |
| 6:00 PM           | 0             | 0    | 0      | 1      | 4      | 5      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 1      | 1      | 6     |
| 6:15 PM           | 0             | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 1      | 0      | 1      | 1     |
| 6:30 PM           | 0             | 0    | 0      | 1      | 2      | 3      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 0      | 0      | 3     |
| 6:45 PM           | 0             | 0    | 0      | 0      | 1      | 1      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 0      | 0      | 1     |
| Total             | 0             | 0    | 0      | 2      | 7      | 9      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 1      | 1      | 2      | 11    |
| 7:00 PM           | 0             | 0    | 0      | 1      | 3      | 4      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 0      | 0      | 4     |
| 7:15 PM           | 0             | 0    | 0      | 0      | 1      | 1      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 0      | 0      | 1     |
| 7:30 PM           | 0             | 0    | 0      | 0      | 2      | 2      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 2      | 2      | 4     |
| 7:45 PM           | 0             | 0    | 0      | 0      | 1      | 1      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 0      | 0      | 1     |
| Total             | 0             | 0    | 0      | 1      | 7      | 8      | 0                            | 0    | 0      | 0      | 0      | 0      | 0                            | 0    | 0      | 0      | 2      | 2      | 10    |
| Grand Total       | 0             | 0    | 0      | 61     | 64     | 125    | 0                            | 0    | 0      | 1      | 2      | 3      | 0                            | 0    | 0      | 32     | 30     | 62     | 190   |
| Approach %        | 0             | 0    | 0      | 48.8   | 51.2   |        | 0                            | 0    | 0      | 33.333 | 66.667 |        | 0                            | 0    | 0      | 51.613 | 48.387 |        |       |
| Total %           | 0             | 0    | 0      | 32.105 | 33.684 | 65.789 | 0                            | 0    | 0      | 0.5263 | 1.0526 | 1.5789 | 0                            | 0    | 0      | 16.842 | 15.789 | 32.632 |       |
| Exiting Leg Total | 125           |      |        |        |        |        | 3                            |      |        |        |        |        | 62                           |      |        |        |        |        | 190   |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                  | Cherry Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|---------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from North    |       |        |       |       |       | from East                    |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Right         | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 8:00 AM          | 0             | 0     | 0      | 2     | 0     | 2     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 1     | 1     | 3     |
| 8:15 AM          | 0             | 0     | 0      | 0     | 3     | 3     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 3     | 3     | 6     |
| 8:30 AM          | 0             | 0     | 0      | 0     | 1     | 1     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 2     | 2     | 4     | 5     |
| 8:45 AM          | 0             | 0     | 0      | 2     | 1     | 3     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 2     | 2     | 4     | 7     |
| Total Volume     | 0             | 0     | 0      | 4     | 5     | 9     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 4     | 8     | 12    | 21    |
| % Approach Total | 0.0           | 0.0   | 0.0    | 44.4  | 55.6  |       | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   |       | 0.0                          | 0.0   | 0.0    | 33.3  | 66.7  |       |       |
| PHF              | 0.000         | 0.000 | 0.000  | 0.500 | 0.417 | 0.750 | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000  | 0.500 | 0.667 | 0.750 | 0.750 |
| Entering Leg     | 0             | 0     | 0      | 4     | 5     | 9     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 4     | 8     | 12    | 21    |
| Exiting Leg      | 9             |       |        |       |       |       | 0                            |       |        |       |       |       | 12                           |       |        |       |       |       | 21    |
| Total            | 18            |       |        |       |       |       | 0                            |       |        |       |       |       | 24                           |       |        |       |       |       | 42    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Cherry Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|---------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from North    |       |        |       |       |       | from East                    |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Right         | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 12:15 PM         | 0             | 0     | 0      | 3     | 2     | 5     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 1     | 0     | 1     | 6     |
| 12:30 PM         | 0             | 0     | 0      | 0     | 1     | 1     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 1     |
| 12:45 PM         | 0             | 0     | 0      | 4     | 1     | 5     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 1     | 1     | 2     | 7     |
| 1:00 PM          | 0             | 0     | 0      | 3     | 2     | 5     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 0     | 0     | 0     | 5     |
| Total Volume     | 0             | 0     | 0      | 10    | 6     | 16    | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 2     | 1     | 3     | 19    |
| % Approach Total | 0.0           | 0.0   | 0.0    | 62.5  | 37.5  |       | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   |       | 0.0                          | 0.0   | 0.0    | 66.7  | 33.3  |       |       |
| PHF              | 0.000         | 0.000 | 0.000  | 0.625 | 0.750 | 0.800 | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000  | 0.500 | 0.250 | 0.375 | 0.679 |
| Entering Leg     | 0             | 0     | 0      | 10    | 6     | 16    | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 2     | 1     | 3     | 19    |
| Exiting Leg      | 16            |       |        |       |       |       | 0                            |       |        |       |       |       | 3                            |       |        |       |       |       | 19    |
| Total            | 32            |       |        |       |       |       | 0                            |       |        |       |       |       | 6                            |       |        |       |       |       | 38    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Cherry Street |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Washington Street (Route 16) |      |        |       |       |       | Total |
|---------|---------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|------------------------------|------|--------|-------|-------|-------|-------|
|         | from North    |      |        |       |       |       | from East                    |      |        |       |       |       | from West                    |      |        |       |       |       |       |
|         | Right         | Left | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 4:45 PM | 0             | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 3     | 3     | 5     |
| 5:00 PM | 0             | 0    | 0      | 1     | 3     | 4     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 5     | 2     | 7     | 11    |
| 5:15 PM | 0             | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0      | 3     | 3     | 6     | 6     |

PDI File #: **218212 D**  
 Location: **N: Cherry Street**  
 Location: **E: Washington St (Rt 16) W: Washington St (Rt 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Pedestrians**

|                  | Cherry Street |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Washington Street (Route 16) |       |        |       |       |       | Total |
|------------------|---------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|------------------------------|-------|--------|-------|-------|-------|-------|
|                  | from North    |       |        |       |       |       | from East                    |       |        |       |       |       | from West                    |       |        |       |       |       |       |
|                  | Right         | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | U-Turn | CW-SB | CW-NB | Total | Thru                         | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 5:30 PM          | 0             | 0     | 0      | 1     | 0     | 1     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0      | 5     | 0     | 5     | 6     |
| Total Volume     | 0             | 0     | 0      | 2     | 5     | 7     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 13     | 8     | 21    | 28    |       |
| % Approach Total | 0.0           | 0.0   | 0.0    | 28.6  | 71.4  |       | 0.0                          | 0.0   | 0.0    | 0.0   | 0.0   |       | 0.0                          | 0.0   | 0.0    | 61.9  | 38.1  |       |       |
| PHF              | 0.000         | 0.000 | 0.000  | 0.500 | 0.417 | 0.438 | 0.000                        | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000  | 0.650 | 0.667 | 0.750 | 0.636 |
| Entering Leg     | 0             | 0     | 0      | 2     | 5     | 7     | 0                            | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 13     | 8     | 21    | 28    |       |
| Exiting Leg      |               |       |        |       |       | 7     |                              |       |        |       |       |       |                              |       |        |       |       | 21    | 28    |
| Total            |               |       |        |       |       | 14    |                              |       |        |       |       |       |                              |       |        |       |       | 42    | 56    |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|          | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|----------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|          | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|          | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 6:00 AM  | 20         | 0    | 0    | 0      | 20    | 3                            | 36   | 1    | 0      | 40    | 54                           | 7    | 3    | 0      | 64    | 0                            | 0    | 0    | 0      | 0     | 124   |
| 6:15 AM  | 37         | 0    | 0    | 0      | 37    | 2                            | 51   | 0    | 0      | 53    | 59                           | 11   | 2    | 0      | 72    | 0                            | 0    | 0    | 0      | 0     | 162   |
| 6:30 AM  | 41         | 0    | 0    | 0      | 41    | 7                            | 71   | 0    | 0      | 78    | 77                           | 14   | 1    | 0      | 92    | 0                            | 0    | 0    | 0      | 0     | 211   |
| 6:45 AM  | 46         | 0    | 0    | 0      | 46    | 4                            | 84   | 0    | 0      | 88    | 102                          | 12   | 5    | 0      | 119   | 0                            | 0    | 0    | 0      | 0     | 253   |
| Total    | 144        | 0    | 0    | 0      | 144   | 16                           | 242  | 1    | 0      | 259   | 292                          | 44   | 11   | 0      | 347   | 0                            | 0    | 0    | 0      | 0     | 750   |
| 7:00 AM  | 48         | 0    | 0    | 0      | 48    | 5                            | 63   | 0    | 0      | 68    | 78                           | 17   | 5    | 0      | 100   | 0                            | 0    | 0    | 0      | 0     | 216   |
| 7:15 AM  | 64         | 0    | 0    | 0      | 64    | 3                            | 103  | 0    | 0      | 106   | 129                          | 16   | 4    | 0      | 149   | 0                            | 0    | 0    | 0      | 0     | 319   |
| 7:30 AM  | 82         | 0    | 0    | 0      | 82    | 6                            | 94   | 0    | 0      | 100   | 159                          | 23   | 9    | 0      | 191   | 0                            | 0    | 0    | 0      | 0     | 373   |
| 7:45 AM  | 81         | 0    | 0    | 0      | 81    | 8                            | 130  | 0    | 0      | 138   | 160                          | 25   | 4    | 0      | 189   | 0                            | 0    | 0    | 0      | 0     | 408   |
| Total    | 275        | 0    | 0    | 0      | 275   | 22                           | 390  | 0    | 0      | 412   | 526                          | 81   | 22   | 0      | 629   | 0                            | 0    | 0    | 0      | 0     | 1316  |
| 8:00 AM  | 61         | 0    | 0    | 0      | 61    | 8                            | 96   | 0    | 0      | 104   | 137                          | 24   | 5    | 0      | 166   | 0                            | 0    | 0    | 0      | 0     | 331   |
| 8:15 AM  | 50         | 0    | 0    | 0      | 50    | 4                            | 97   | 0    | 0      | 101   | 147                          | 38   | 4    | 0      | 189   | 0                            | 0    | 0    | 0      | 0     | 340   |
| 8:30 AM  | 60         | 0    | 0    | 0      | 60    | 4                            | 111  | 0    | 0      | 115   | 130                          | 25   | 6    | 0      | 161   | 0                            | 0    | 0    | 0      | 0     | 336   |
| 8:45 AM  | 53         | 0    | 0    | 0      | 53    | 14                           | 103  | 0    | 0      | 117   | 150                          | 41   | 8    | 0      | 199   | 0                            | 0    | 0    | 0      | 0     | 369   |
| Total    | 224        | 0    | 0    | 0      | 224   | 30                           | 407  | 0    | 0      | 437   | 564                          | 128  | 23   | 0      | 715   | 0                            | 0    | 0    | 0      | 0     | 1376  |
| 9:00 AM  | 42         | 0    | 0    | 0      | 42    | 12                           | 70   | 0    | 0      | 82    | 146                          | 26   | 2    | 0      | 174   | 0                            | 0    | 0    | 0      | 0     | 298   |
| 9:15 AM  | 26         | 0    | 0    | 0      | 26    | 11                           | 100  | 0    | 0      | 111   | 129                          | 23   | 6    | 0      | 158   | 0                            | 0    | 0    | 0      | 0     | 295   |
| 9:30 AM  | 34         | 0    | 0    | 0      | 34    | 8                            | 87   | 0    | 0      | 95    | 124                          | 18   | 3    | 0      | 145   | 0                            | 0    | 0    | 0      | 0     | 274   |
| 9:45 AM  | 24         | 0    | 0    | 0      | 24    | 8                            | 83   | 0    | 0      | 91    | 143                          | 21   | 4    | 0      | 168   | 0                            | 0    | 0    | 0      | 0     | 283   |
| Total    | 126        | 0    | 0    | 0      | 126   | 39                           | 340  | 0    | 0      | 379   | 542                          | 88   | 15   | 0      | 645   | 0                            | 0    | 0    | 0      | 0     | 1150  |
| 10:00 AM | 37         | 0    | 0    | 0      | 37    | 6                            | 81   | 0    | 0      | 87    | 135                          | 25   | 12   | 0      | 172   | 0                            | 0    | 0    | 0      | 0     | 296   |
| 10:15 AM | 29         | 0    | 0    | 0      | 29    | 10                           | 96   | 0    | 0      | 106   | 99                           | 17   | 1    | 0      | 117   | 0                            | 0    | 0    | 0      | 0     | 252   |
| 10:30 AM | 34         | 0    | 0    | 0      | 34    | 3                            | 91   | 0    | 0      | 94    | 107                          | 23   | 6    | 0      | 136   | 0                            | 0    | 0    | 0      | 0     | 264   |
| 10:45 AM | 41         | 0    | 0    | 0      | 41    | 8                            | 100  | 0    | 0      | 108   | 104                          | 21   | 2    | 0      | 127   | 0                            | 0    | 0    | 0      | 0     | 276   |
| Total    | 141        | 0    | 0    | 0      | 141   | 27                           | 368  | 0    | 0      | 395   | 445                          | 86   | 21   | 0      | 552   | 0                            | 0    | 0    | 0      | 0     | 1088  |
| 11:00 AM | 36         | 0    | 0    | 0      | 36    | 10                           | 89   | 0    | 0      | 99    | 96                           | 28   | 9    | 0      | 133   | 0                            | 0    | 0    | 1      | 1     | 269   |
| 11:15 AM | 26         | 0    | 0    | 0      | 26    | 14                           | 86   | 0    | 0      | 100   | 112                          | 16   | 8    | 0      | 136   | 0                            | 0    | 0    | 0      | 0     | 262   |
| 11:30 AM | 28         | 0    | 0    | 0      | 28    | 7                            | 89   | 0    | 0      | 96    | 106                          | 27   | 4    | 0      | 137   | 0                            | 0    | 0    | 0      | 0     | 261   |
| 11:45 AM | 35         | 0    | 0    | 0      | 35    | 5                            | 91   | 0    | 0      | 96    | 107                          | 31   | 12   | 0      | 150   | 0                            | 0    | 0    | 0      | 0     | 281   |
| Total    | 125        | 0    | 0    | 0      | 125   | 36                           | 355  | 0    | 0      | 391   | 421                          | 102  | 33   | 0      | 556   | 0                            | 0    | 0    | 1      | 1     | 1073  |
| 12:00 PM | 34         | 0    | 0    | 0      | 34    | 14                           | 94   | 0    | 0      | 108   | 116                          | 23   | 6    | 0      | 145   | 0                            | 0    | 0    | 0      | 0     | 287   |
| 12:15 PM | 21         | 0    | 0    | 0      | 21    | 13                           | 120  | 0    | 0      | 133   | 118                          | 43   | 7    | 0      | 168   | 0                            | 0    | 0    | 0      | 0     | 322   |
| 12:30 PM | 31         | 0    | 0    | 0      | 31    | 16                           | 113  | 0    | 0      | 129   | 99                           | 27   | 9    | 0      | 135   | 0                            | 0    | 0    | 0      | 0     | 295   |
| 12:45 PM | 30         | 0    | 0    | 0      | 30    | 7                            | 92   | 0    | 0      | 99    | 123                          | 31   | 8    | 0      | 162   | 0                            | 0    | 0    | 0      | 0     | 291   |
| Total    | 116        | 0    | 0    | 0      | 116   | 50                           | 419  | 0    | 0      | 469   | 456                          | 124  | 30   | 0      | 610   | 0                            | 0    | 0    | 0      | 0     | 1195  |
| 1:00 PM  | 27         | 0    | 0    | 0      | 27    | 10                           | 95   | 0    | 0      | 105   | 112                          | 25   | 3    | 0      | 140   | 0                            | 0    | 0    | 0      | 0     | 272   |
| 1:15 PM  | 31         | 0    | 0    | 0      | 31    | 10                           | 108  | 0    | 0      | 118   | 108                          | 18   | 3    | 0      | 129   | 0                            | 0    | 0    | 0      | 0     | 278   |
| 1:30 PM  | 48         | 0    | 0    | 0      | 48    | 3                            | 117  | 0    | 0      | 120   | 110                          | 29   | 5    | 0      | 144   | 0                            | 0    | 0    | 0      | 0     | 312   |
| 1:45 PM  | 42         | 0    | 0    | 0      | 42    | 7                            | 110  | 0    | 0      | 117   | 131                          | 17   | 6    | 0      | 154   | 0                            | 0    | 0    | 0      | 0     | 313   |
| Total    | 148        | 0    | 0    | 0      | 148   | 30                           | 430  | 0    | 0      | 460   | 461                          | 89   | 17   | 0      | 567   | 0                            | 0    | 0    | 0      | 0     | 1175  |
| 2:00 PM  | 41         | 0    | 0    | 1      | 42    | 5                            | 134  | 0    | 0      | 139   | 107                          | 24   | 5    | 0      | 136   | 0                            | 0    | 0    | 0      | 0     | 317   |
| 2:15 PM  | 28         | 0    | 0    | 0      | 28    | 12                           | 131  | 0    | 0      | 143   | 126                          | 29   | 4    | 0      | 159   | 0                            | 0    | 0    | 0      | 0     | 330   |
| 2:30 PM  | 52         | 0    | 0    | 0      | 52    | 6                            | 123  | 0    | 0      | 129   | 105                          | 36   | 7    | 0      | 148   | 0                            | 0    | 0    | 0      | 0     | 329   |
| 2:45 PM  | 45         | 0    | 0    | 0      | 45    | 16                           | 143  | 0    | 0      | 159   | 96                           | 17   | 5    | 0      | 118   | 0                            | 0    | 0    | 0      | 0     | 322   |
| Total    | 166        | 0    | 0    | 1      | 167   | 39                           | 531  | 0    | 0      | 570   | 434                          | 106  | 21   | 0      | 561   | 0                            | 0    | 0    | 0      | 0     | 1298  |
| 3:00 PM  | 39         | 0    | 0    | 0      | 39    | 14                           | 122  | 0    | 0      | 136   | 131                          | 35   | 5    | 0      | 171   | 0                            | 0    | 0    | 0      | 0     | 346   |
| 3:15 PM  | 37         | 0    | 0    | 0      | 37    | 9                            | 136  | 0    | 0      | 145   | 130                          | 25   | 3    | 0      | 158   | 0                            | 0    | 0    | 0      | 0     | 340   |
| 3:30 PM  | 52         | 0    | 0    | 0      | 52    | 13                           | 109  | 0    | 0      | 122   | 141                          | 40   | 9    | 0      | 190   | 0                            | 0    | 0    | 0      | 0     | 364   |
| 3:45 PM  | 31         | 0    | 0    | 0      | 31    | 6                            | 153  | 0    | 0      | 159   | 127                          | 31   | 3    | 0      | 161   | 0                            | 0    | 0    | 0      | 0     | 351   |
| Total    | 159        | 0    | 0    | 0      | 159   | 42                           | 520  | 0    | 0      | 562   | 529                          | 131  | 20   | 0      | 680   | 0                            | 0    | 0    | 0      | 0     | 1401  |
| 4:00 PM  | 50         | 0    | 0    | 0      | 50    | 14                           | 107  | 0    | 0      | 121   | 158                          | 35   | 7    | 0      | 200   | 0                            | 0    | 0    | 0      | 0     | 371   |
| 4:15 PM  | 45         | 0    | 0    | 0      | 45    | 14                           | 143  | 0    | 0      | 157   | 149                          | 44   | 9    | 0      | 202   | 0                            | 0    | 0    | 0      | 0     | 404   |
| 4:30 PM  | 57         | 0    | 0    | 0      | 57    | 7                            | 115  | 0    | 0      | 122   | 150                          | 33   | 5    | 0      | 188   | 0                            | 0    | 0    | 0      | 0     | 367   |
| 4:45 PM  | 38         | 0    | 0    | 0      | 38    | 8                            | 110  | 0    | 0      | 118   | 176                          | 36   | 8    | 0      | 220   | 0                            | 0    | 0    | 0      | 0     | 376   |
| Total    | 190        | 0    | 0    | 0      | 190   | 43                           | 475  | 0    | 0      | 518   | 633                          | 148  | 29   | 0      | 810   | 0                            | 0    | 0    | 0      | 0     | 1518  |
| 5:00 PM  | 60         | 0    | 0    | 0      | 60    | 11                           | 119  | 0    | 0      | 130   | 134                          | 30   | 5    | 0      | 169   | 0                            | 0    | 0    | 0      | 0     | 359   |
| 5:15 PM  | 52         | 0    | 0    | 0      | 52    | 13                           | 151  | 0    | 0      | 164   | 157                          | 50   | 11   | 0      | 218   | 0                            | 0    | 0    | 0      | 0     | 434   |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                   | Elm Street |          |          |          |            | Washington Street (Route 16) |            |          |          |            | Washington Street (Route 16) |            |           |          |            | Washington Street (Route 16) |          |          |          |          | Total       |
|-------------------|------------|----------|----------|----------|------------|------------------------------|------------|----------|----------|------------|------------------------------|------------|-----------|----------|------------|------------------------------|----------|----------|----------|----------|-------------|
|                   | from North |          |          |          |            | from East                    |            |          |          |            | from South                   |            |           |          |            | from West                    |          |          |          |          |             |
|                   | Right      | Thru     | Left     | U-Turn   | Total      | Right                        | Thru       | Left     | U-Turn   | Total      | Right                        | Thru       | Left      | U-Turn   | Total      | Right                        | Thru     | Left     | U-Turn   | Total    |             |
| 5:30 PM           | 55         | 0        | 0        | 0        | 55         | 13                           | 113        | 0        | 0        | 126        | 169                          | 35         | 11        | 0        | 215        | 0                            | 0        | 0        | 0        | 0        | 396         |
| 5:45 PM           | 43         | 0        | 0        | 0        | 43         | 7                            | 172        | 0        | 0        | 179        | 181                          | 22         | 10        | 0        | 213        | 0                            | 0        | 0        | 0        | 0        | 435         |
| <b>Total</b>      | <b>210</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>210</b> | <b>44</b>                    | <b>555</b> | <b>0</b> | <b>0</b> | <b>599</b> | <b>641</b>                   | <b>137</b> | <b>37</b> | <b>0</b> | <b>815</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>1624</b> |
| 6:00 PM           | 44         | 0        | 1        | 0        | 45         | 16                           | 125        | 0        | 0        | 141        | 171                          | 41         | 13        | 0        | 225        | 0                            | 0        | 0        | 0        | 0        | 411         |
| 6:15 PM           | 56         | 0        | 0        | 0        | 56         | 18                           | 144        | 0        | 0        | 162        | 165                          | 33         | 9         | 0        | 207        | 0                            | 0        | 0        | 0        | 0        | 425         |
| 6:30 PM           | 60         | 0        | 0        | 0        | 60         | 9                            | 137        | 0        | 0        | 146        | 159                          | 32         | 22        | 0        | 213        | 0                            | 0        | 0        | 0        | 0        | 419         |
| 6:45 PM           | 31         | 0        | 0        | 0        | 31         | 13                           | 116        | 0        | 0        | 129        | 117                          | 28         | 5         | 0        | 150        | 0                            | 0        | 0        | 0        | 0        | 310         |
| <b>Total</b>      | <b>191</b> | <b>0</b> | <b>1</b> | <b>0</b> | <b>192</b> | <b>56</b>                    | <b>522</b> | <b>0</b> | <b>0</b> | <b>578</b> | <b>612</b>                   | <b>134</b> | <b>49</b> | <b>0</b> | <b>795</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>1565</b> |
| 7:00 PM           | 40         | 0        | 0        | 0        | 40         | 8                            | 92         | 0        | 0        | 100        | 95                           | 25         | 4         | 0        | 124        | 0                            | 0        | 0        | 0        | 0        | 264         |
| 7:15 PM           | 34         | 0        | 0        | 0        | 34         | 13                           | 84         | 0        | 0        | 97         | 127                          | 26         | 6         | 0        | 159        | 0                            | 0        | 0        | 0        | 0        | 290         |
| 7:30 PM           | 20         | 0        | 0        | 0        | 20         | 9                            | 83         | 0        | 0        | 92         | 88                           | 23         | 4         | 0        | 115        | 0                            | 0        | 0        | 0        | 0        | 227         |
| 7:45 PM           | 27         | 0        | 0        | 0        | 27         | 9                            | 54         | 0        | 0        | 63         | 70                           | 15         | 0         | 0        | 85         | 0                            | 0        | 0        | 0        | 0        | 175         |
| <b>Total</b>      | <b>121</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>121</b> | <b>39</b>                    | <b>313</b> | <b>0</b> | <b>0</b> | <b>352</b> | <b>380</b>                   | <b>89</b>  | <b>14</b> | <b>0</b> | <b>483</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>956</b>  |
| Grand Total       | 2336       | 0        | 1        | 1        | 2338       | 513                          | 5867       | 1        | 0        | 6381       | 6936                         | 1487       | 342       | 0        | 8765       | 0                            | 0        | 0        | 1        | 1        | 17485       |
| Approach %        | 99.9       | 0.0      | 0.0      | 0.0      |            | 8.0                          | 91.9       | 0.0      | 0.0      |            | 79.1                         | 17.0       | 3.9       | 0.0      |            | 0.0                          | 0.0      | 0.0      | 100.0    |          |             |
| Total %           | 13.4       | 0.0      | 0.0      | 0.0      | 13.4       | 2.9                          | 33.6       | 0.0      | 0.0      | 36.5       | 39.7                         | 8.5        | 2.0       | 0.0      | 50.1       | 0.0                          | 0.0      | 0.0      | 0.0      | 0.0      |             |
| Exiting Leg Total | 2001       |          |          |          |            | 6937                         |            |          |          |            | 1                            |            |           |          |            | 8546                         |          |          |          |          | 17485       |
| Cars              | 2252       | 0        | 1        | 1        | 2254       | 467                          | 5648       | 0        | 0        | 6115       | 6645                         | 1426       | 332       | 0        | 8403       | 0                            | 0        | 0        | 1        | 1        | 16773       |
| % Cars            | 96.4       | 0.0      | 100.0    | 100.0    | 96.4       | 91.0                         | 96.3       | 0.0      | 0.0      | 95.8       | 95.8                         | 95.9       | 97.1      | 0.0      | 95.9       | 0.0                          | 0.0      | 0.0      | 100.0    | 100.0    | 95.9        |
| Exiting Leg Total | 1894       |          |          |          |            | 6646                         |            |          |          |            | 0                            |            |           |          |            | 8233                         |          |          |          |          | 16773       |
| Heavy Vehicles    | 84         | 0        | 0        | 0        | 84         | 46                           | 219        | 1        | 0        | 266        | 291                          | 61         | 10        | 0        | 362        | 0                            | 0        | 0        | 0        | 0        | 712         |
| % Heavy Vehicles  | 3.6        | 0.0      | 0.0      | 0.0      | 3.6        | 9.0                          | 3.7        | 100.0    | 0.0      | 4.2        | 4.2                          | 4.1        | 2.9       | 0.0      | 4.1        | 0.0                          | 0.0      | 0.0      | 0.0      | 0.0      | 4.1         |
| Exiting Leg Total | 107        |          |          |          |            | 291                          |            |          |          |            | 1                            |            |           |          |            | 313                          |          |          |          |          | 712         |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                    | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|--------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                    | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                    | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 7:30 AM            | 82         | 0     | 0     | 0      | 82    | 6                            | 94    | 0     | 0      | 100   | 159                          | 23    | 9     | 0      | 191   | 0                            | 0     | 0     | 0      | 0     | 373   |
| 7:45 AM            | 81         | 0     | 0     | 0      | 81    | 8                            | 130   | 0     | 0      | 138   | 160                          | 25    | 4     | 0      | 189   | 0                            | 0     | 0     | 0      | 0     | 408   |
| 8:00 AM            | 61         | 0     | 0     | 0      | 61    | 8                            | 96    | 0     | 0      | 104   | 137                          | 24    | 5     | 0      | 166   | 0                            | 0     | 0     | 0      | 0     | 331   |
| 8:15 AM            | 50         | 0     | 0     | 0      | 50    | 4                            | 97    | 0     | 0      | 101   | 147                          | 38    | 4     | 0      | 189   | 0                            | 0     | 0     | 0      | 0     | 340   |
| Total Volume       | 274        | 0     | 0     | 0      | 274   | 26                           | 417   | 0     | 0      | 443   | 603                          | 110   | 22    | 0      | 735   | 0                            | 0     | 0     | 0      | 0     | 1452  |
| % Approach Total   | 100.0      | 0.0   | 0.0   | 0.0    |       | 5.9                          | 94.1  | 0.0   | 0.0    |       | 82.0                         | 15.0  | 3.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF                | 0.835      | 0.000 | 0.000 | 0.000  | 0.835 | 0.813                        | 0.802 | 0.000 | 0.000  | 0.803 | 0.942                        | 0.724 | 0.611 | 0.000  | 0.962 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.890 |
| Cars               | 265        | 0     | 0     | 0      | 265   | 23                           | 400   | 0     | 0      | 423   | 568                          | 104   | 21    | 0      | 693   | 0                            | 0     | 0     | 0      | 0     | 1381  |
| Cars %             | 96.7       | 0.0   | 0.0   | 0.0    | 96.7  | 88.5                         | 95.9  | 0.0   | 0.0    | 95.5  | 94.2                         | 94.5  | 95.5  | 0.0    | 94.3  | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 95.1  |
| Heavy Vehicles     | 9          | 0     | 0     | 0      | 9     | 3                            | 17    | 0     | 0      | 20    | 35                           | 6     | 1     | 0      | 42    | 0                            | 0     | 0     | 0      | 0     | 71    |
| Heavy Vehicles %   | 3.3        | 0.0   | 0.0   | 0.0    | 3.3   | 11.5                         | 4.1   | 0.0   | 0.0    | 4.5   | 5.8                          | 5.5   | 4.5   | 0.0    | 5.7   | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 4.9   |
| Cars Enter Leg     | 265        | 0     | 0     | 0      | 265   | 23                           | 400   | 0     | 0      | 423   | 568                          | 104   | 21    | 0      | 693   | 0                            | 0     | 0     | 0      | 0     | 1381  |
| Heavy Enter Leg    | 9          | 0     | 0     | 0      | 9     | 3                            | 17    | 0     | 0      | 20    | 35                           | 6     | 1     | 0      | 42    | 0                            | 0     | 0     | 0      | 0     | 71    |
| Total Entering Leg | 274        | 0     | 0     | 0      | 274   | 26                           | 417   | 0     | 0      | 443   | 603                          | 110   | 22    | 0      | 735   | 0                            | 0     | 0     | 0      | 0     | 1452  |
| Cars Exiting Leg   | 127        |       |       |        |       | 568                          |       |       |        |       | 0                            |       |       |        |       | 686                          |       |       |        |       | 1381  |
| Heavy Exiting Leg  | 9          |       |       |        |       | 35                           |       |       |        |       | 0                            |       |       |        |       | 27                           |       |       |        |       | 71    |
| Total Exiting Leg  | 136        |       |       |        |       | 603                          |       |       |        |       | 0                            |       |       |        |       | 713                          |       |       |        |       | 1452  |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                  | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                  | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 1:45 PM          | 42         | 0     | 0     | 0      | 42    | 7                            | 110   | 0     | 0      | 117   | 131                          | 17    | 6     | 0      | 154   | 0                            | 0     | 0     | 0      | 0     | 313   |
| 2:00 PM          | 41         | 0     | 0     | 1      | 42    | 5                            | 134   | 0     | 0      | 139   | 107                          | 24    | 5     | 0      | 136   | 0                            | 0     | 0     | 0      | 0     | 317   |
| 2:15 PM          | 28         | 0     | 0     | 0      | 28    | 12                           | 131   | 0     | 0      | 143   | 126                          | 29    | 4     | 0      | 159   | 0                            | 0     | 0     | 0      | 0     | 330   |
| 2:30 PM          | 52         | 0     | 0     | 0      | 52    | 6                            | 123   | 0     | 0      | 129   | 105                          | 36    | 7     | 0      | 148   | 0                            | 0     | 0     | 0      | 0     | 329   |
| Total Volume     | 163        | 0     | 0     | 1      | 164   | 30                           | 498   | 0     | 0      | 528   | 469                          | 106   | 22    | 0      | 597   | 0                            | 0     | 0     | 0      | 0     | 1289  |
| % Approach Total | 99.4       | 0.0   | 0.0   | 0.6    |       | 5.7                          | 94.3  | 0.0   | 0.0    |       | 78.6                         | 17.8  | 3.7   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF              | 0.784      | 0.000 | 0.000 | 0.250  | 0.788 | 0.625                        | 0.929 | 0.000 | 0.000  | 0.923 | 0.895                        | 0.736 | 0.786 | 0.000  | 0.939 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.977 |
| Cars             | 158        | 0     | 0     | 1      | 159   | 29                           | 480   | 0     | 0      | 509   | 444                          | 96    | 22    | 0      | 562   | 0                            | 0     | 0     | 0      | 0     | 1230  |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars and Heavy Vehicles (Combined)**

|                    | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |       |        |       | Washington Street (Route 16) |      |      |        |       | Total |      |
|--------------------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|-------|--------|-------|------------------------------|------|------|--------|-------|-------|------|
|                    | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |       |        |       | from West                    |      |      |        |       |       |      |
|                    | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left  | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |      |
| Cars %             | 96.9       | 0.0  | 0.0  | 100.0  | 97.0  | 96.7                         | 96.4 | 0.0  | 0.0    | 96.4  | 94.7                         | 90.6 | 100.0 | 0.0    | 94.1  | 0.0                          | 0.0  | 0.0  | 0.0    | 0.0   | 95.4  |      |
| Heavy Vehicles     | 5          | 0    | 0    | 0      | 5     | 1                            | 18   | 0    | 0      | 19    | 25                           | 10   | 0     | 0      | 35    | 0                            | 0    | 0    | 0      | 0     | 59    |      |
| Heavy Vehicles %   | 3.1        | 0.0  | 0.0  | 0.0    | 3.0   | 3.3                          | 3.6  | 0.0  | 0.0    | 3.6   | 5.3                          | 9.4  | 0.0   | 0.0    | 5.9   | 0.0                          | 0.0  | 0.0  | 0.0    | 0.0   | 4.6   |      |
| Cars Enter Leg     | 158        | 0    | 0    | 1      | 159   | 29                           | 480  | 0    | 0      | 509   | 444                          | 96   | 22    | 0      | 562   | 0                            | 0    | 0    | 0      | 0     | 1230  |      |
| Heavy Enter Leg    | 5          | 0    | 0    | 0      | 5     | 1                            | 18   | 0    | 0      | 19    | 25                           | 10   | 0     | 0      | 35    | 0                            | 0    | 0    | 0      | 0     | 59    |      |
| Total Entering Leg | 163        | 0    | 0    | 1      | 164   | 30                           | 498  | 0    | 0      | 528   | 469                          | 106  | 22    | 0      | 597   | 0                            | 0    | 0    | 0      | 0     | 1289  |      |
| Cars Exiting Leg   |            |      |      |        | 126   |                              |      |      |        | 444   |                              |      |       |        | 0     |                              |      |      |        |       | 660   | 1230 |
| Heavy Exiting Leg  |            |      |      |        | 11    |                              |      |      |        | 25    |                              |      |       |        | 0     |                              |      |      |        |       | 23    | 59   |
| Total Exiting Leg  |            |      |      |        | 137   |                              |      |      |        | 469   |                              |      |       |        | 0     |                              |      |      |        |       | 683   | 1289 |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|                    | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |      |
|--------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|------|
|                    | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |      |
|                    | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |      |
| 5:45 PM            | 43         | 0     | 0     | 0      | 43    | 7                            | 172   | 0     | 0      | 179   | 181                          | 22    | 10    | 0      | 213   | 0                            | 0     | 0     | 0      | 0     | 435   |      |
| 6:00 PM            | 44         | 0     | 1     | 0      | 45    | 16                           | 125   | 0     | 0      | 141   | 171                          | 41    | 13    | 0      | 225   | 0                            | 0     | 0     | 0      | 0     | 411   |      |
| 6:15 PM            | 56         | 0     | 0     | 0      | 56    | 18                           | 144   | 0     | 0      | 162   | 165                          | 33    | 9     | 0      | 207   | 0                            | 0     | 0     | 0      | 0     | 425   |      |
| 6:30 PM            | 60         | 0     | 0     | 0      | 60    | 9                            | 137   | 0     | 0      | 146   | 159                          | 32    | 22    | 0      | 213   | 0                            | 0     | 0     | 0      | 0     | 419   |      |
| Total Volume       | 203        | 0     | 1     | 0      | 204   | 50                           | 578   | 0     | 0      | 628   | 676                          | 128   | 54    | 0      | 858   | 0                            | 0     | 0     | 0      | 0     | 1690  |      |
| % Approach Total   | 99.5       | 0.0   | 0.5   | 0.0    |       | 8.0                          | 92.0  | 0.0   | 0.0    |       | 78.8                         | 14.9  | 6.3   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |      |
| PHF                | 0.846      | 0.000 | 0.250 | 0.000  | 0.850 | 0.694                        | 0.840 | 0.000 | 0.000  | 0.877 | 0.934                        | 0.780 | 0.614 | 0.000  | 0.953 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.971 |      |
| Cars               | 200        | 0     | 1     | 0      | 201   | 47                           | 566   | 0     | 0      | 613   | 657                          | 126   | 53    | 0      | 836   | 0                            | 0     | 0     | 0      | 0     | 1650  |      |
| Cars %             | 98.5       | 0.0   | 100.0 | 0.0    | 98.5  | 94.0                         | 97.9  | 0.0   | 0.0    | 97.6  | 97.2                         | 98.4  | 98.1  | 0.0    | 97.4  | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 97.6  |      |
| Heavy Vehicles     | 3          | 0     | 0     | 0      | 3     | 3                            | 12    | 0     | 0      | 15    | 19                           | 2     | 1     | 0      | 22    | 0                            | 0     | 0     | 0      | 0     | 40    |      |
| Heavy Vehicles %   | 1.5        | 0.0   | 0.0   | 0.0    | 1.5   | 6.0                          | 2.1   | 0.0   | 0.0    | 2.4   | 2.8                          | 1.6   | 1.9   | 0.0    | 2.6   | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 2.4   |      |
| Cars Enter Leg     | 200        | 0     | 1     | 0      | 201   | 47                           | 566   | 0     | 0      | 613   | 657                          | 126   | 53    | 0      | 836   | 0                            | 0     | 0     | 0      | 0     | 1650  |      |
| Heavy Enter Leg    | 3          | 0     | 0     | 0      | 3     | 3                            | 12    | 0     | 0      | 15    | 19                           | 2     | 1     | 0      | 22    | 0                            | 0     | 0     | 0      | 0     | 40    |      |
| Total Entering Leg | 203        | 0     | 1     | 0      | 204   | 50                           | 578   | 0     | 0      | 628   | 676                          | 128   | 54    | 0      | 858   | 0                            | 0     | 0     | 0      | 0     | 1690  |      |
| Cars Exiting Leg   |            |       |       |        | 173   |                              |       |       |        | 658   |                              |       |       |        | 0     |                              |       |       |        |       | 819   | 1650 |
| Heavy Exiting Leg  |            |       |       |        | 5     |                              |       |       |        | 19    |                              |       |       |        | 0     |                              |       |       |        |       | 16    | 40   |
| Total Exiting Leg  |            |       |       |        | 178   |                              |       |       |        | 677   |                              |       |       |        | 0     |                              |       |       |        |       | 835   | 1690 |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars**

|          | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|----------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|          | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|          | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 6:00 AM  | 18         | 0    | 0    | 0      | 18    | 2                            | 35   | 0    | 0      | 37    | 51                           | 6    | 2    | 0      | 59    | 0                            | 0    | 0    | 0      | 0     | 114   |
| 6:15 AM  | 36         | 0    | 0    | 0      | 36    | 2                            | 45   | 0    | 0      | 47    | 54                           | 11   | 2    | 0      | 67    | 0                            | 0    | 0    | 0      | 0     | 150   |
| 6:30 AM  | 39         | 0    | 0    | 0      | 39    | 5                            | 67   | 0    | 0      | 72    | 72                           | 13   | 1    | 0      | 86    | 0                            | 0    | 0    | 0      | 0     | 197   |
| 6:45 AM  | 43         | 0    | 0    | 0      | 43    | 2                            | 82   | 0    | 0      | 84    | 90                           | 12   | 5    | 0      | 107   | 0                            | 0    | 0    | 0      | 0     | 234   |
| Total    | 136        | 0    | 0    | 0      | 136   | 11                           | 229  | 0    | 0      | 240   | 267                          | 42   | 10   | 0      | 319   | 0                            | 0    | 0    | 0      | 0     | 695   |
| 7:00 AM  | 44         | 0    | 0    | 0      | 44    | 4                            | 61   | 0    | 0      | 65    | 72                           | 17   | 5    | 0      | 94    | 0                            | 0    | 0    | 0      | 0     | 203   |
| 7:15 AM  | 59         | 0    | 0    | 0      | 59    | 2                            | 99   | 0    | 0      | 101   | 123                          | 15   | 4    | 0      | 142   | 0                            | 0    | 0    | 0      | 0     | 302   |
| 7:30 AM  | 79         | 0    | 0    | 0      | 79    | 4                            | 88   | 0    | 0      | 92    | 145                          | 23   | 9    | 0      | 177   | 0                            | 0    | 0    | 0      | 0     | 348   |
| 7:45 AM  | 80         | 0    | 0    | 0      | 80    | 8                            | 129  | 0    | 0      | 137   | 156                          | 23   | 4    | 0      | 183   | 0                            | 0    | 0    | 0      | 0     | 400   |
| Total    | 262        | 0    | 0    | 0      | 262   | 18                           | 377  | 0    | 0      | 395   | 496                          | 78   | 22   | 0      | 596   | 0                            | 0    | 0    | 0      | 0     | 1253  |
| 8:00 AM  | 57         | 0    | 0    | 0      | 57    | 7                            | 91   | 0    | 0      | 98    | 125                          | 24   | 5    | 0      | 154   | 0                            | 0    | 0    | 0      | 0     | 309   |
| 8:15 AM  | 49         | 0    | 0    | 0      | 49    | 4                            | 92   | 0    | 0      | 96    | 142                          | 34   | 3    | 0      | 179   | 0                            | 0    | 0    | 0      | 0     | 324   |
| 8:30 AM  | 59         | 0    | 0    | 0      | 59    | 4                            | 102  | 0    | 0      | 106   | 125                          | 25   | 6    | 0      | 156   | 0                            | 0    | 0    | 0      | 0     | 321   |
| 8:45 AM  | 52         | 0    | 0    | 0      | 52    | 13                           | 97   | 0    | 0      | 110   | 148                          | 39   | 8    | 0      | 195   | 0                            | 0    | 0    | 0      | 0     | 357   |
| Total    | 217        | 0    | 0    | 0      | 217   | 28                           | 382  | 0    | 0      | 410   | 540                          | 122  | 22   | 0      | 684   | 0                            | 0    | 0    | 0      | 0     | 1311  |
| 9:00 AM  | 40         | 0    | 0    | 0      | 40    | 12                           | 68   | 0    | 0      | 80    | 138                          | 24   | 2    | 0      | 164   | 0                            | 0    | 0    | 0      | 0     | 284   |
| 9:15 AM  | 26         | 0    | 0    | 0      | 26    | 10                           | 96   | 0    | 0      | 106   | 123                          | 21   | 6    | 0      | 150   | 0                            | 0    | 0    | 0      | 0     | 282   |
| 9:30 AM  | 33         | 0    | 0    | 0      | 33    | 7                            | 82   | 0    | 0      | 89    | 117                          | 17   | 3    | 0      | 137   | 0                            | 0    | 0    | 0      | 0     | 259   |
| 9:45 AM  | 23         | 0    | 0    | 0      | 23    | 8                            | 72   | 0    | 0      | 80    | 133                          | 19   | 4    | 0      | 156   | 0                            | 0    | 0    | 0      | 0     | 259   |
| Total    | 122        | 0    | 0    | 0      | 122   | 37                           | 318  | 0    | 0      | 355   | 511                          | 81   | 15   | 0      | 607   | 0                            | 0    | 0    | 0      | 0     | 1084  |
| 10:00 AM | 35         | 0    | 0    | 0      | 35    | 4                            | 74   | 0    | 0      | 78    | 130                          | 23   | 9    | 0      | 162   | 0                            | 0    | 0    | 0      | 0     | 275   |
| 10:15 AM | 27         | 0    | 0    | 0      | 27    | 9                            | 92   | 0    | 0      | 101   | 92                           | 17   | 1    | 0      | 110   | 0                            | 0    | 0    | 0      | 0     | 238   |
| 10:30 AM | 32         | 0    | 0    | 0      | 32    | 3                            | 83   | 0    | 0      | 86    | 103                          | 22   | 6    | 0      | 131   | 0                            | 0    | 0    | 0      | 0     | 249   |
| 10:45 AM | 38         | 0    | 0    | 0      | 38    | 7                            | 94   | 0    | 0      | 101   | 97                           | 21   | 2    | 0      | 120   | 0                            | 0    | 0    | 0      | 0     | 259   |
| Total    | 132        | 0    | 0    | 0      | 132   | 23                           | 343  | 0    | 0      | 366   | 422                          | 83   | 18   | 0      | 523   | 0                            | 0    | 0    | 0      | 0     | 1021  |
| 11:00 AM | 34         | 0    | 0    | 0      | 34    | 8                            | 84   | 0    | 0      | 92    | 84                           | 28   | 9    | 0      | 121   | 0                            | 0    | 0    | 1      | 1     | 248   |
| 11:15 AM | 26         | 0    | 0    | 0      | 26    | 14                           | 83   | 0    | 0      | 97    | 109                          | 15   | 8    | 0      | 132   | 0                            | 0    | 0    | 0      | 0     | 255   |
| 11:30 AM | 26         | 0    | 0    | 0      | 26    | 6                            | 77   | 0    | 0      | 83    | 103                          | 24   | 3    | 0      | 130   | 0                            | 0    | 0    | 0      | 0     | 239   |
| 11:45 AM | 33         | 0    | 0    | 0      | 33    | 3                            | 89   | 0    | 0      | 92    | 103                          | 31   | 11   | 0      | 145   | 0                            | 0    | 0    | 0      | 0     | 270   |
| Total    | 119        | 0    | 0    | 0      | 119   | 31                           | 333  | 0    | 0      | 364   | 399                          | 98   | 31   | 0      | 528   | 0                            | 0    | 0    | 1      | 1     | 1012  |
| 12:00 PM | 31         | 0    | 0    | 0      | 31    | 14                           | 88   | 0    | 0      | 102   | 108                          | 20   | 6    | 0      | 134   | 0                            | 0    | 0    | 0      | 0     | 267   |
| 12:15 PM | 21         | 0    | 0    | 0      | 21    | 13                           | 114  | 0    | 0      | 127   | 114                          | 40   | 7    | 0      | 161   | 0                            | 0    | 0    | 0      | 0     | 309   |
| 12:30 PM | 30         | 0    | 0    | 0      | 30    | 14                           | 106  | 0    | 0      | 120   | 93                           | 24   | 9    | 0      | 126   | 0                            | 0    | 0    | 0      | 0     | 276   |
| 12:45 PM | 29         | 0    | 0    | 0      | 29    | 6                            | 88   | 0    | 0      | 94    | 112                          | 27   | 8    | 0      | 147   | 0                            | 0    | 0    | 0      | 0     | 270   |
| Total    | 111        | 0    | 0    | 0      | 111   | 47                           | 396  | 0    | 0      | 443   | 427                          | 111  | 30   | 0      | 568   | 0                            | 0    | 0    | 0      | 0     | 1122  |
| 1:00 PM  | 26         | 0    | 0    | 0      | 26    | 9                            | 91   | 0    | 0      | 100   | 109                          | 25   | 3    | 0      | 137   | 0                            | 0    | 0    | 0      | 0     | 263   |
| 1:15 PM  | 29         | 0    | 0    | 0      | 29    | 8                            | 99   | 0    | 0      | 107   | 104                          | 17   | 3    | 0      | 124   | 0                            | 0    | 0    | 0      | 0     | 260   |
| 1:30 PM  | 46         | 0    | 0    | 0      | 46    | 3                            | 114  | 0    | 0      | 117   | 105                          | 29   | 5    | 0      | 139   | 0                            | 0    | 0    | 0      | 0     | 302   |
| 1:45 PM  | 41         | 0    | 0    | 0      | 41    | 7                            | 109  | 0    | 0      | 116   | 123                          | 16   | 6    | 0      | 145   | 0                            | 0    | 0    | 0      | 0     | 302   |
| Total    | 142        | 0    | 0    | 0      | 142   | 27                           | 413  | 0    | 0      | 440   | 441                          | 87   | 17   | 0      | 545   | 0                            | 0    | 0    | 0      | 0     | 1127  |
| 2:00 PM  | 41         | 0    | 0    | 1      | 42    | 4                            | 125  | 0    | 0      | 129   | 100                          | 20   | 5    | 0      | 125   | 0                            | 0    | 0    | 0      | 0     | 296   |
| 2:15 PM  | 27         | 0    | 0    | 0      | 27    | 12                           | 128  | 0    | 0      | 140   | 120                          | 25   | 4    | 0      | 149   | 0                            | 0    | 0    | 0      | 0     | 316   |
| 2:30 PM  | 49         | 0    | 0    | 0      | 49    | 6                            | 118  | 0    | 0      | 124   | 101                          | 35   | 7    | 0      | 143   | 0                            | 0    | 0    | 0      | 0     | 316   |
| 2:45 PM  | 45         | 0    | 0    | 0      | 45    | 13                           | 138  | 0    | 0      | 151   | 91                           | 17   | 5    | 0      | 113   | 0                            | 0    | 0    | 0      | 0     | 309   |
| Total    | 162        | 0    | 0    | 1      | 163   | 35                           | 509  | 0    | 0      | 544   | 412                          | 97   | 21   | 0      | 530   | 0                            | 0    | 0    | 0      | 0     | 1237  |
| 3:00 PM  | 35         | 0    | 0    | 0      | 35    | 14                           | 119  | 0    | 0      | 133   | 128                          | 33   | 5    | 0      | 166   | 0                            | 0    | 0    | 0      | 0     | 334   |
| 3:15 PM  | 37         | 0    | 0    | 0      | 37    | 9                            | 133  | 0    | 0      | 142   | 128                          | 25   | 3    | 0      | 156   | 0                            | 0    | 0    | 0      | 0     | 335   |
| 3:30 PM  | 51         | 0    | 0    | 0      | 51    | 11                           | 106  | 0    | 0      | 117   | 138                          | 40   | 9    | 0      | 187   | 0                            | 0    | 0    | 0      | 0     | 355   |
| 3:45 PM  | 30         | 0    | 0    | 0      | 30    | 5                            | 150  | 0    | 0      | 155   | 124                          | 30   | 3    | 0      | 157   | 0                            | 0    | 0    | 0      | 0     | 342   |
| Total    | 153        | 0    | 0    | 0      | 153   | 39                           | 508  | 0    | 0      | 547   | 518                          | 128  | 20   | 0      | 666   | 0                            | 0    | 0    | 0      | 0     | 1366  |
| 4:00 PM  | 49         | 0    | 0    | 0      | 49    | 14                           | 107  | 0    | 0      | 121   | 152                          | 35   | 7    | 0      | 194   | 0                            | 0    | 0    | 0      | 0     | 364   |
| 4:15 PM  | 45         | 0    | 0    | 0      | 45    | 13                           | 141  | 0    | 0      | 154   | 146                          | 41   | 9    | 0      | 196   | 0                            | 0    | 0    | 0      | 0     | 395   |
| 4:30 PM  | 56         | 0    | 0    | 0      | 56    | 6                            | 113  | 0    | 0      | 119   | 145                          | 32   | 4    | 0      | 181   | 0                            | 0    | 0    | 0      | 0     | 356   |
| 4:45 PM  | 37         | 0    | 0    | 0      | 37    | 8                            | 108  | 0    | 0      | 116   | 172                          | 36   | 7    | 0      | 215   | 0                            | 0    | 0    | 0      | 0     | 368   |
| Total    | 187        | 0    | 0    | 0      | 187   | 41                           | 469  | 0    | 0      | 510   | 615                          | 144  | 27   | 0      | 786   | 0                            | 0    | 0    | 0      | 0     | 1483  |
| 5:00 PM  | 60         | 0    | 0    | 0      | 60    | 10                           | 118  | 0    | 0      | 128   | 132                          | 30   | 5    | 0      | 167   | 0                            | 0    | 0    | 0      | 0     | 355   |
| 5:15 PM  | 49         | 0    | 0    | 0      | 49    | 13                           | 149  | 0    | 0      | 162   | 151                          | 47   | 11   | 0      | 209   | 0                            | 0    | 0    | 0      | 0     | 420   |



PDI File #: 218212 E

Location: N: Elm Street S: Washington Street (Route 16)

Location: E: Washington St (Route 16) W: Washington St (Route 16)

City, State: West Newton, MA

Client: BETA/J. Centracchio

Site Code: 5472-14

Count Date: Tuesday, October 19, 2021

Start Time: 6:00 AM

End Time: 8:00 PM

Class:



PRECISION DATA INDUSTRIES, LLC

157 Washington Street, Suite 2  
Hudson, MA 01749  
Office: 508-875-0100 Fax: 508-875-0118

Cars

Table with columns for Street, Direction (from North, East, South, West), and Traffic Volume (Right, Thru, Left, U-Turn, Total). Rows include time intervals from 5:30 PM to 8:00 PM and Grand Total.

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

Table showing AM Peak Hour Analysis with columns for Street, Direction, and Traffic Volume. Rows include time intervals from 7:30 AM to 8:15 AM and summary statistics like PHF and Entering/Exiting Leg.

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

Table showing MidDay Peak Hour Analysis with columns for Street, Direction, and Traffic Volume. Rows include time intervals from 1:45 PM to 2:30 PM and summary statistics like PHF and Entering/Exiting Leg.

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

Table showing PM Peak Hour Analysis with columns for Street, Direction, and Traffic Volume. Rows include time intervals from 5:45 PM to 6:30 PM.

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Cars**

|                  | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |      |
|------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|------|
|                  | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |      |
|                  | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |      |
| Total Volume     | 200        | 0     | 1     | 0      | 201   | 47                           | 566   | 0     | 0      | 613   | 657                          | 126   | 53    | 0      | 836   | 0                            | 0     | 0     | 0      | 0     | 1650  |      |
| % Approach Total | 99.5       | 0.0   | 0.5   | 0.0    |       | 7.7                          | 92.3  | 0.0   | 0.0    |       | 78.6                         | 15.1  | 6.3   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |      |
| PHF              | 0.862      | 0.000 | 0.250 | 0.000  | 0.866 | 0.653                        | 0.858 | 0.000 | 0.000  | 0.891 | 0.928                        | 0.788 | 0.602 | 0.000  | 0.954 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.975 |      |
| Entering Leg     | 200        | 0     | 1     | 0      | 201   | 47                           | 566   | 0     | 0      | 613   | 657                          | 126   | 53    | 0      | 836   | 0                            | 0     | 0     | 0      | 0     | 1650  |      |
| Exiting Leg      |            |       |       |        | 173   |                              |       |       |        | 658   |                              |       |       |        | 0     |                              |       |       |        |       | 819   | 1650 |
| Total            |            |       |       |        | 374   |                              |       |       |        | 1271  |                              |       |       |        | 836   |                              |       |       |        |       | 819   | 3300 |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



|          | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|----------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|          | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|          | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 6:00 AM  | 2          | 0    | 0    | 0      | 2     | 1                            | 1    | 1    | 0      | 3     | 3                            | 1    | 1    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 10    |
| 6:15 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 6    | 0    | 0      | 6     | 5                            | 0    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 12    |
| 6:30 AM  | 2          | 0    | 0    | 0      | 2     | 2                            | 4    | 0    | 0      | 6     | 5                            | 1    | 0    | 0      | 6     | 0                            | 0    | 0    | 0      | 0     | 14    |
| 6:45 AM  | 3          | 0    | 0    | 0      | 3     | 2                            | 2    | 0    | 0      | 4     | 12                           | 0    | 0    | 0      | 12    | 0                            | 0    | 0    | 0      | 0     | 19    |
| Total    | 8          | 0    | 0    | 0      | 8     | 5                            | 13   | 1    | 0      | 19    | 25                           | 2    | 1    | 0      | 28    | 0                            | 0    | 0    | 0      | 0     | 55    |
| 7:00 AM  | 4          | 0    | 0    | 0      | 4     | 1                            | 2    | 0    | 0      | 3     | 6                            | 0    | 0    | 0      | 6     | 0                            | 0    | 0    | 0      | 0     | 13    |
| 7:15 AM  | 5          | 0    | 0    | 0      | 5     | 1                            | 4    | 0    | 0      | 5     | 6                            | 1    | 0    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 17    |
| 7:30 AM  | 3          | 0    | 0    | 0      | 3     | 2                            | 6    | 0    | 0      | 8     | 14                           | 0    | 0    | 0      | 14    | 0                            | 0    | 0    | 0      | 0     | 25    |
| 7:45 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 4                            | 2    | 0    | 0      | 6     | 0                            | 0    | 0    | 0      | 0     | 8     |
| Total    | 13         | 0    | 0    | 0      | 13    | 4                            | 13   | 0    | 0      | 17    | 30                           | 3    | 0    | 0      | 33    | 0                            | 0    | 0    | 0      | 0     | 63    |
| 8:00 AM  | 4          | 0    | 0    | 0      | 4     | 1                            | 5    | 0    | 0      | 6     | 12                           | 0    | 0    | 0      | 12    | 0                            | 0    | 0    | 0      | 0     | 22    |
| 8:15 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 5    | 0    | 0      | 5     | 5                            | 4    | 1    | 0      | 10    | 0                            | 0    | 0    | 0      | 0     | 16    |
| 8:30 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 9    | 0    | 0      | 9     | 5                            | 0    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 15    |
| 8:45 AM  | 1          | 0    | 0    | 0      | 1     | 1                            | 6    | 0    | 0      | 7     | 2                            | 2    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 12    |
| Total    | 7          | 0    | 0    | 0      | 7     | 2                            | 25   | 0    | 0      | 27    | 24                           | 6    | 1    | 0      | 31    | 0                            | 0    | 0    | 0      | 0     | 65    |
| 9:00 AM  | 2          | 0    | 0    | 0      | 2     | 0                            | 2    | 0    | 0      | 2     | 8                            | 2    | 0    | 0      | 10    | 0                            | 0    | 0    | 0      | 0     | 14    |
| 9:15 AM  | 0          | 0    | 0    | 0      | 0     | 1                            | 4    | 0    | 0      | 5     | 6                            | 2    | 0    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 13    |
| 9:30 AM  | 1          | 0    | 0    | 0      | 1     | 1                            | 5    | 0    | 0      | 6     | 7                            | 1    | 0    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 15    |
| 9:45 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 11   | 0    | 0      | 11    | 10                           | 2    | 0    | 0      | 12    | 0                            | 0    | 0    | 0      | 0     | 24    |
| Total    | 4          | 0    | 0    | 0      | 4     | 2                            | 22   | 0    | 0      | 24    | 31                           | 7    | 0    | 0      | 38    | 0                            | 0    | 0    | 0      | 0     | 66    |
| 10:00 AM | 2          | 0    | 0    | 0      | 2     | 2                            | 7    | 0    | 0      | 9     | 5                            | 2    | 3    | 0      | 10    | 0                            | 0    | 0    | 0      | 0     | 21    |
| 10:15 AM | 2          | 0    | 0    | 0      | 2     | 1                            | 4    | 0    | 0      | 5     | 7                            | 0    | 0    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 14    |
| 10:30 AM | 2          | 0    | 0    | 0      | 2     | 0                            | 8    | 0    | 0      | 8     | 4                            | 1    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 15    |
| 10:45 AM | 3          | 0    | 0    | 0      | 3     | 1                            | 6    | 0    | 0      | 7     | 7                            | 0    | 0    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 17    |
| Total    | 9          | 0    | 0    | 0      | 9     | 4                            | 25   | 0    | 0      | 29    | 23                           | 3    | 3    | 0      | 29    | 0                            | 0    | 0    | 0      | 0     | 67    |
| 11:00 AM | 2          | 0    | 0    | 0      | 2     | 2                            | 5    | 0    | 0      | 7     | 12                           | 0    | 0    | 0      | 12    | 0                            | 0    | 0    | 0      | 0     | 21    |
| 11:15 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 0    | 0      | 3     | 3                            | 1    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 7     |
| 11:30 AM | 2          | 0    | 0    | 0      | 2     | 1                            | 12   | 0    | 0      | 13    | 3                            | 3    | 1    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 22    |
| 11:45 AM | 2          | 0    | 0    | 0      | 2     | 2                            | 2    | 0    | 0      | 4     | 4                            | 0    | 1    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 11    |
| Total    | 6          | 0    | 0    | 0      | 6     | 5                            | 22   | 0    | 0      | 27    | 22                           | 4    | 2    | 0      | 28    | 0                            | 0    | 0    | 0      | 0     | 61    |
| 12:00 PM | 3          | 0    | 0    | 0      | 3     | 0                            | 6    | 0    | 0      | 6     | 8                            | 3    | 0    | 0      | 11    | 0                            | 0    | 0    | 0      | 0     | 20    |
| 12:15 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 6    | 0    | 0      | 6     | 4                            | 3    | 0    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 13    |
| 12:30 PM | 1          | 0    | 0    | 0      | 1     | 2                            | 7    | 0    | 0      | 9     | 6                            | 3    | 0    | 0      | 9     | 0                            | 0    | 0    | 0      | 0     | 19    |
| 12:45 PM | 1          | 0    | 0    | 0      | 1     | 1                            | 4    | 0    | 0      | 5     | 11                           | 4    | 0    | 0      | 15    | 0                            | 0    | 0    | 0      | 0     | 21    |
| Total    | 5          | 0    | 0    | 0      | 5     | 3                            | 23   | 0    | 0      | 26    | 29                           | 13   | 0    | 0      | 42    | 0                            | 0    | 0    | 0      | 0     | 73    |
| 1:00 PM  | 1          | 0    | 0    | 0      | 1     | 1                            | 4    | 0    | 0      | 5     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 9     |
| 1:15 PM  | 2          | 0    | 0    | 0      | 2     | 2                            | 9    | 0    | 0      | 11    | 4                            | 1    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 18    |
| 1:30 PM  | 2          | 0    | 0    | 0      | 2     | 0                            | 3    | 0    | 0      | 3     | 5                            | 0    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 10    |
| 1:45 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 8                            | 1    | 0    | 0      | 9     | 0                            | 0    | 0    | 0      | 0     | 11    |
| Total    | 6          | 0    | 0    | 0      | 6     | 3                            | 17   | 0    | 0      | 20    | 20                           | 2    | 0    | 0      | 22    | 0                            | 0    | 0    | 0      | 0     | 48    |
| 2:00 PM  | 0          | 0    | 0    | 0      | 0     | 1                            | 9    | 0    | 0      | 10    | 7                            | 4    | 0    | 0      | 11    | 0                            | 0    | 0    | 0      | 0     | 21    |
| 2:15 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 3    | 0    | 0      | 3     | 6                            | 4    | 0    | 0      | 10    | 0                            | 0    | 0    | 0      | 0     | 14    |
| 2:30 PM  | 3          | 0    | 0    | 0      | 3     | 0                            | 5    | 0    | 0      | 5     | 4                            | 1    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 13    |
| 2:45 PM  | 0          | 0    | 0    | 0      | 0     | 3                            | 5    | 0    | 0      | 8     | 5                            | 0    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 13    |
| Total    | 4          | 0    | 0    | 0      | 4     | 4                            | 22   | 0    | 0      | 26    | 22                           | 9    | 0    | 0      | 31    | 0                            | 0    | 0    | 0      | 0     | 61    |
| 3:00 PM  | 4          | 0    | 0    | 0      | 4     | 0                            | 3    | 0    | 0      | 3     | 3                            | 2    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 12    |
| 3:15 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 0    | 0      | 3     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 5     |
| 3:30 PM  | 1          | 0    | 0    | 0      | 1     | 2                            | 3    | 0    | 0      | 5     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 9     |
| 3:45 PM  | 1          | 0    | 0    | 0      | 1     | 1                            | 3    | 0    | 0      | 4     | 3                            | 1    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 9     |
| Total    | 6          | 0    | 0    | 0      | 6     | 3                            | 12   | 0    | 0      | 15    | 11                           | 3    | 0    | 0      | 14    | 0                            | 0    | 0    | 0      | 0     | 35    |
| 4:00 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 6                            | 0    | 0    | 0      | 6     | 0                            | 0    | 0    | 0      | 0     | 7     |
| 4:15 PM  | 0          | 0    | 0    | 0      | 0     | 1                            | 2    | 0    | 0      | 3     | 3                            | 3    | 0    | 0      | 6     | 0                            | 0    | 0    | 0      | 0     | 9     |
| 4:30 PM  | 1          | 0    | 0    | 0      | 1     | 1                            | 2    | 0    | 0      | 3     | 5                            | 1    | 1    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 11    |
| 4:45 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 2    | 0    | 0      | 2     | 4                            | 0    | 1    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 8     |
| Total    | 3          | 0    | 0    | 0      | 3     | 2                            | 6    | 0    | 0      | 8     | 18                           | 4    | 2    | 0      | 24    | 0                            | 0    | 0    | 0      | 0     | 35    |
| 5:00 PM  | 0          | 0    | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 4     |
| 5:15 PM  | 3          | 0    | 0    | 0      | 3     | 0                            | 2    | 0    | 0      | 2     | 6                            | 3    | 0    | 0      | 9     | 0                            | 0    | 0    | 0      | 0     | 14    |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Elm Street |          |          |          |          | Washington Street (Route 16) |           |          |          |           | Washington Street (Route 16) |          |          |          |           | Washington Street (Route 16) |          |          |          |          | Total     |
|--------------------|------------|----------|----------|----------|----------|------------------------------|-----------|----------|----------|-----------|------------------------------|----------|----------|----------|-----------|------------------------------|----------|----------|----------|----------|-----------|
|                    | from North |          |          |          |          | from East                    |           |          |          |           | from South                   |          |          |          |           | from West                    |          |          |          |          |           |
|                    | Right      | Thru     | Left     | U-Turn   | Total    | Right                        | Thru      | Left     | U-Turn   | Total     | Right                        | Thru     | Left     | U-Turn   | Total     | Right                        | Thru     | Left     | U-Turn   | Total    |           |
| 5:30 PM            | 2          | 0        | 0        | 0        | 2        | 2                            | 1         | 0        | 0        | 3         | 1                            | 0        | 0        | 0        | 1         | 0                            | 0        | 0        | 0        | 0        | 6         |
| 5:45 PM            | 0          | 0        | 0        | 0        | 0        | 0                            | 7         | 0        | 0        | 7         | 4                            | 0        | 1        | 0        | 5         | 0                            | 0        | 0        | 0        | 0        | 12        |
| <b>Total</b>       | <b>5</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>5</b> | <b>3</b>                     | <b>11</b> | <b>0</b> | <b>0</b> | <b>14</b> | <b>13</b>                    | <b>3</b> | <b>1</b> | <b>0</b> | <b>17</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>36</b> |
| 6:00 PM            | 1          | 0        | 0        | 0        | 1        | 2                            | 2         | 0        | 0        | 4         | 5                            | 1        | 0        | 0        | 6         | 0                            | 0        | 0        | 0        | 0        | 11        |
| 6:15 PM            | 0          | 0        | 0        | 0        | 0        | 0                            | 2         | 0        | 0        | 2         | 5                            | 1        | 0        | 0        | 6         | 0                            | 0        | 0        | 0        | 0        | 8         |
| 6:30 PM            | 2          | 0        | 0        | 0        | 2        | 1                            | 1         | 0        | 0        | 2         | 5                            | 0        | 0        | 0        | 5         | 0                            | 0        | 0        | 0        | 0        | 9         |
| 6:45 PM            | 0          | 0        | 0        | 0        | 0        | 1                            | 0         | 0        | 0        | 1         | 1                            | 0        | 0        | 0        | 1         | 0                            | 0        | 0        | 0        | 0        | 2         |
| <b>Total</b>       | <b>3</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b> | <b>4</b>                     | <b>5</b>  | <b>0</b> | <b>0</b> | <b>9</b>  | <b>16</b>                    | <b>2</b> | <b>0</b> | <b>0</b> | <b>18</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>30</b> |
| 7:00 PM            | 1          | 0        | 0        | 0        | 1        | 0                            | 2         | 0        | 0        | 2         | 2                            | 0        | 0        | 0        | 2         | 0                            | 0        | 0        | 0        | 0        | 5         |
| 7:15 PM            | 2          | 0        | 0        | 0        | 2        | 1                            | 0         | 0        | 0        | 1         | 2                            | 0        | 0        | 0        | 2         | 0                            | 0        | 0        | 0        | 0        | 5         |
| 7:30 PM            | 0          | 0        | 0        | 0        | 0        | 0                            | 0         | 0        | 0        | 0         | 2                            | 0        | 0        | 0        | 2         | 0                            | 0        | 0        | 0        | 0        | 2         |
| 7:45 PM            | 2          | 0        | 0        | 0        | 2        | 1                            | 1         | 0        | 0        | 2         | 1                            | 0        | 0        | 0        | 1         | 0                            | 0        | 0        | 0        | 0        | 5         |
| <b>Total</b>       | <b>5</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>5</b> | <b>2</b>                     | <b>3</b>  | <b>0</b> | <b>0</b> | <b>5</b>  | <b>7</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>  | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>17</b> |
| Grand Total        | 84         | 0        | 0        | 0        | 84       | 46                           | 219       | 1        | 0        | 266       | 291                          | 61       | 10       | 0        | 362       | 0                            | 0        | 0        | 0        | 0        | 712       |
| Approach %         | 100.0      | 0.0      | 0.0      | 0.0      |          | 17.3                         | 82.3      | 0.4      | 0.0      |           | 80.4                         | 16.9     | 2.8      | 0.0      |           | 0.0                          | 0.0      | 0.0      | 0.0      |          |           |
| Total %            | 11.8       | 0.0      | 0.0      | 0.0      | 11.8     | 6.5                          | 30.8      | 0.1      | 0.0      | 37.4      | 40.9                         | 8.6      | 1.4      | 0.0      | 50.8      | 0.0                          | 0.0      | 0.0      | 0.0      | 0.0      |           |
| Exiting Leg Total  | 107        |          |          |          |          | 291                          |           |          |          |           | 1                            |          |          |          |           | 313                          |          |          |          |          | 712       |
| Buses              | 38         | 0        | 0        | 0        | 38       | 27                           | 20        | 0        | 0        | 47        | 44                           | 11       | 0        | 0        | 55        | 0                            | 0        | 0        | 0        | 0        | 140       |
| % Buses            | 45.2       | 0.0      | 0.0      | 0.0      | 45.2     | 58.7                         | 9.1       | 0.0      | 0.0      | 17.7      | 15.1                         | 18.0     | 0.0      | 0.0      | 15.2      | 0.0                          | 0.0      | 0.0      | 0.0      | 0.0      | 19.7      |
| Exiting Leg Total  | 38         |          |          |          |          | 44                           |           |          |          |           | 0                            |          |          |          |           | 58                           |          |          |          |          | 140       |
| Single-Unit Trucks | 39         | 0        | 0        | 0        | 39       | 14                           | 171       | 0        | 0        | 185       | 209                          | 45       | 9        | 0        | 263       | 0                            | 0        | 0        | 0        | 0        | 487       |
| % Single-Unit      | 46.4       | 0.0      | 0.0      | 0.0      | 46.4     | 30.4                         | 78.1      | 0.0      | 0.0      | 69.5      | 71.8                         | 73.8     | 90.0     | 0.0      | 72.7      | 0.0                          | 0.0      | 0.0      | 0.0      | 0.0      | 68.4      |
| Exiting Leg Total  | 59         |          |          |          |          | 209                          |           |          |          |           | 0                            |          |          |          |           | 219                          |          |          |          |          | 487       |
| Articulated Trucks | 7          | 0        | 0        | 0        | 7        | 5                            | 28        | 1        | 0        | 34        | 38                           | 5        | 1        | 0        | 44        | 0                            | 0        | 0        | 0        | 0        | 85        |
| % Articulated      | 8.3        | 0.0      | 0.0      | 0.0      | 8.3      | 10.9                         | 12.8      | 100.0    | 0.0      | 12.8      | 13.1                         | 8.2      | 10.0     | 0.0      | 12.2      | 0.0                          | 0.0      | 0.0      | 0.0      | 0.0      | 11.9      |
| Exiting Leg Total  | 10         |          |          |          |          | 38                           |           |          |          |           | 1                            |          |          |          |           | 36                           |          |          |          |          | 85        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                    | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|--------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                    | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                    | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 6:45 AM            | 3          | 0     | 0     | 0      | 3     | 2                            | 2     | 0     | 0      | 4     | 12                           | 0     | 0     | 0      | 12    | 0                            | 0     | 0     | 0      | 0     | 19    |
| 7:00 AM            | 4          | 0     | 0     | 0      | 4     | 1                            | 2     | 0     | 0      | 3     | 6                            | 0     | 0     | 0      | 6     | 0                            | 0     | 0     | 0      | 0     | 13    |
| 7:15 AM            | 5          | 0     | 0     | 0      | 5     | 1                            | 4     | 0     | 0      | 5     | 6                            | 1     | 0     | 0      | 7     | 0                            | 0     | 0     | 0      | 0     | 17    |
| 7:30 AM            | 3          | 0     | 0     | 0      | 3     | 2                            | 6     | 0     | 0      | 8     | 14                           | 0     | 0     | 0      | 14    | 0                            | 0     | 0     | 0      | 0     | 25    |
| Total Volume       | 15         | 0     | 0     | 0      | 15    | 6                            | 14    | 0     | 0      | 20    | 38                           | 1     | 0     | 0      | 39    | 0                            | 0     | 0     | 0      | 0     | 74    |
| % Approach Total   | 100.0      | 0.0   | 0.0   | 0.0    |       | 30.0                         | 70.0  | 0.0   | 0.0    |       | 97.4                         | 2.6   | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF                | 0.750      | 0.000 | 0.000 | 0.000  | 0.750 | 0.750                        | 0.583 | 0.000 | 0.000  | 0.625 | 0.679                        | 0.250 | 0.000 | 0.000  | 0.696 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.740 |
| Buses              | 6          | 0     | 0     | 0      | 6     | 2                            | 2     | 0     | 0      | 4     | 5                            | 1     | 0     | 0      | 6     | 0                            | 0     | 0     | 0      | 0     | 16    |
| Buses %            | 40.0       | 0.0   | 0.0   | 0.0    | 40.0  | 33.3                         | 14.3  | 0.0   | 0.0    | 20.0  | 13.2                         | 100.0 | 0.0   | 0.0    | 15.4  | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 21.6  |
| Single-Unit Trucks | 8          | 0     | 0     | 0      | 8     | 3                            | 11    | 0     | 0      | 14    | 28                           | 0     | 0     | 0      | 28    | 0                            | 0     | 0     | 0      | 0     | 50    |
| Single-Unit %      | 53.3       | 0.0   | 0.0   | 0.0    | 53.3  | 50.0                         | 78.6  | 0.0   | 0.0    | 70.0  | 73.7                         | 0.0   | 0.0   | 0.0    | 71.8  | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 67.6  |
| Articulated Trucks | 1          | 0     | 0     | 0      | 1     | 1                            | 1     | 0     | 0      | 2     | 5                            | 0     | 0     | 0      | 5     | 0                            | 0     | 0     | 0      | 0     | 8     |
| Articulated %      | 6.7        | 0.0   | 0.0   | 0.0    | 6.7   | 16.7                         | 7.1   | 0.0   | 0.0    | 10.0  | 13.2                         | 0.0   | 0.0   | 0.0    | 12.8  | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 10.8  |
| Buses              | 6          | 0     | 0     | 0      | 6     | 2                            | 2     | 0     | 0      | 4     | 5                            | 1     | 0     | 0      | 6     | 0                            | 0     | 0     | 0      | 0     | 16    |
| Single-Unit Trucks | 8          | 0     | 0     | 0      | 8     | 3                            | 11    | 0     | 0      | 14    | 28                           | 0     | 0     | 0      | 28    | 0                            | 0     | 0     | 0      | 0     | 50    |
| Articulated Trucks | 1          | 0     | 0     | 0      | 1     | 1                            | 1     | 0     | 0      | 2     | 5                            | 0     | 0     | 0      | 5     | 0                            | 0     | 0     | 0      | 0     | 8     |
| Total Entering Leg | 15         | 0     | 0     | 0      | 15    | 6                            | 14    | 0     | 0      | 20    | 38                           | 1     | 0     | 0      | 39    | 0                            | 0     | 0     | 0      | 0     | 74    |
| Buses              | 3          |       |       |        |       | 5                            |       |       |        |       | 0                            |       |       |        |       | 8                            |       |       |        |       | 16    |
| Single-Unit Trucks | 3          |       |       |        |       | 28                           |       |       |        |       | 0                            |       |       |        |       | 19                           |       |       |        |       | 50    |
| Articulated Trucks | 1          |       |       |        |       | 5                            |       |       |        |       | 0                            |       |       |        |       | 2                            |       |       |        |       | 8     |
| Total Exiting Leg  | 7          |       |       |        |       | 38                           |       |       |        |       | 0                            |       |       |        |       | 29                           |       |       |        |       | 74    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|          | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|----------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|          | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|          | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 12:00 PM |            |      |      |        |       |                              |      |      |        |       |                              |      |      |        |       |                              |      |      |        |       |       |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

|                    | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|--------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                    | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                    | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 12:00 PM           | 3          | 0     | 0     | 0      | 3     | 0                            | 6     | 0     | 0      | 6     | 8                            | 3     | 0     | 0      | 11    | 0                            | 0     | 0     | 0      | 0     | 20    |
| 12:15 PM           | 0          | 0     | 0     | 0      | 0     | 0                            | 6     | 0     | 0      | 6     | 4                            | 3     | 0     | 0      | 7     | 0                            | 0     | 0     | 0      | 0     | 13    |
| 12:30 PM           | 1          | 0     | 0     | 0      | 1     | 2                            | 7     | 0     | 0      | 9     | 6                            | 3     | 0     | 0      | 9     | 0                            | 0     | 0     | 0      | 0     | 19    |
| 12:45 PM           | 1          | 0     | 0     | 0      | 1     | 1                            | 4     | 0     | 0      | 5     | 11                           | 4     | 0     | 0      | 15    | 0                            | 0     | 0     | 0      | 0     | 21    |
| Total Volume       | 5          | 0     | 0     | 0      | 5     | 3                            | 23    | 0     | 0      | 26    | 29                           | 13    | 0     | 0      | 42    | 0                            | 0     | 0     | 0      | 0     | 73    |
| % Approach Total   | 100.0      | 0.0   | 0.0   | 0.0    |       | 11.5                         | 88.5  | 0.0   | 0.0    |       | 69.0                         | 31.0  | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF                | 0.417      | 0.000 | 0.000 | 0.000  | 0.417 | 0.375                        | 0.821 | 0.000 | 0.000  | 0.722 | 0.659                        | 0.813 | 0.000 | 0.000  | 0.700 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.869 |
| Buses              | 2          | 0     | 0     | 0      | 2     | 1                            | 2     | 0     | 0      | 3     | 2                            | 1     | 0     | 0      | 3     | 0                            | 0     | 0     | 0      | 0     | 8     |
| Buses %            | 40.0       | 0.0   | 0.0   | 0.0    | 40.0  | 33.3                         | 8.7   | 0.0   | 0.0    | 11.5  | 6.9                          | 7.7   | 0.0   | 0.0    | 7.1   | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 11.0  |
| Single-Unit Trucks | 3          | 0     | 0     | 0      | 3     | 2                            | 18    | 0     | 0      | 20    | 21                           | 10    | 0     | 0      | 31    | 0                            | 0     | 0     | 0      | 0     | 54    |
| Single-Unit %      | 60.0       | 0.0   | 0.0   | 0.0    | 60.0  | 66.7                         | 78.3  | 0.0   | 0.0    | 76.9  | 72.4                         | 76.9  | 0.0   | 0.0    | 73.8  | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 74.0  |
| Articulated Trucks | 0          | 0     | 0     | 0      | 0     | 0                            | 3     | 0     | 0      | 3     | 6                            | 2     | 0     | 0      | 8     | 0                            | 0     | 0     | 0      | 0     | 11    |
| Articulated %      | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 0.0                          | 13.0  | 0.0   | 0.0    | 11.5  | 20.7                         | 15.4  | 0.0   | 0.0    | 19.0  | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 15.1  |
| Buses              | 2          | 0     | 0     | 0      | 2     | 1                            | 2     | 0     | 0      | 3     | 2                            | 1     | 0     | 0      | 3     | 0                            | 0     | 0     | 0      | 0     | 8     |
| Single-Unit Trucks | 3          | 0     | 0     | 0      | 3     | 2                            | 18    | 0     | 0      | 20    | 21                           | 10    | 0     | 0      | 31    | 0                            | 0     | 0     | 0      | 0     | 54    |
| Articulated Trucks | 0          | 0     | 0     | 0      | 0     | 0                            | 3     | 0     | 0      | 3     | 6                            | 2     | 0     | 0      | 8     | 0                            | 0     | 0     | 0      | 0     | 11    |
| Total Entering Leg | 5          | 0     | 0     | 0      | 5     | 3                            | 23    | 0     | 0      | 26    | 29                           | 13    | 0     | 0      | 42    | 0                            | 0     | 0     | 0      | 0     | 73    |
| Buses              |            |       |       |        | 2     |                              |       |       |        | 2     |                              |       |       |        | 0     |                              |       |       |        | 4     | 8     |
| Single-Unit Trucks |            |       |       |        | 12    |                              |       |       |        | 21    |                              |       |       |        | 0     |                              |       |       |        | 21    | 54    |
| Articulated Trucks |            |       |       |        | 2     |                              |       |       |        | 6     |                              |       |       |        | 0     |                              |       |       |        | 3     | 11    |
| Total Exiting Leg  |            |       |       |        | 16    |                              |       |       |        | 29    |                              |       |       |        | 0     |                              |       |       |        | 28    | 73    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

| 2:00 PM            | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|--------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                    | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                    | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 2:00 PM            | 0          | 0     | 0     | 0      | 0     | 1                            | 9     | 0     | 0      | 10    | 7                            | 4     | 0     | 0      | 11    | 0                            | 0     | 0     | 0      | 0     | 21    |
| 2:15 PM            | 1          | 0     | 0     | 0      | 1     | 0                            | 3     | 0     | 0      | 3     | 6                            | 4     | 0     | 0      | 10    | 0                            | 0     | 0     | 0      | 0     | 14    |
| 2:30 PM            | 3          | 0     | 0     | 0      | 3     | 0                            | 5     | 0     | 0      | 5     | 4                            | 1     | 0     | 0      | 5     | 0                            | 0     | 0     | 0      | 0     | 13    |
| 2:45 PM            | 0          | 0     | 0     | 0      | 0     | 3                            | 5     | 0     | 0      | 8     | 5                            | 0     | 0     | 0      | 5     | 0                            | 0     | 0     | 0      | 0     | 13    |
| Total Volume       | 4          | 0     | 0     | 0      | 4     | 4                            | 22    | 0     | 0      | 26    | 22                           | 9     | 0     | 0      | 31    | 0                            | 0     | 0     | 0      | 0     | 61    |
| % Approach Total   | 100.0      | 0.0   | 0.0   | 0.0    |       | 15.4                         | 84.6  | 0.0   | 0.0    |       | 71.0                         | 29.0  | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF                | 0.333      | 0.000 | 0.000 | 0.000  | 0.333 | 0.333                        | 0.611 | 0.000 | 0.000  | 0.650 | 0.786                        | 0.563 | 0.000 | 0.000  | 0.705 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.726 |
| Buses              | 1          | 0     | 0     | 0      | 1     | 2                            | 0     | 0     | 0      | 2     | 4                            | 0     | 0     | 0      | 4     | 0                            | 0     | 0     | 0      | 0     | 7     |
| Buses %            | 25.0       | 0.0   | 0.0   | 0.0    | 25.0  | 50.0                         | 0.0   | 0.0   | 0.0    | 7.7   | 18.2                         | 0.0   | 0.0   | 0.0    | 12.9  | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 11.5  |
| Single-Unit Trucks | 2          | 0     | 0     | 0      | 2     | 2                            | 20    | 0     | 0      | 22    | 15                           | 8     | 0     | 0      | 23    | 0                            | 0     | 0     | 0      | 0     | 47    |
| Single-Unit %      | 50.0       | 0.0   | 0.0   | 0.0    | 50.0  | 50.0                         | 90.9  | 0.0   | 0.0    | 84.6  | 68.2                         | 88.9  | 0.0   | 0.0    | 74.2  | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 77.0  |
| Articulated Trucks | 1          | 0     | 0     | 0      | 1     | 0                            | 2     | 0     | 0      | 2     | 3                            | 1     | 0     | 0      | 4     | 0                            | 0     | 0     | 0      | 0     | 7     |
| Articulated %      | 25.0       | 0.0   | 0.0   | 0.0    | 25.0  | 0.0                          | 9.1   | 0.0   | 0.0    | 7.7   | 13.6                         | 11.1  | 0.0   | 0.0    | 12.9  | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 11.5  |
| Buses              | 1          | 0     | 0     | 0      | 1     | 2                            | 0     | 0     | 0      | 2     | 4                            | 0     | 0     | 0      | 4     | 0                            | 0     | 0     | 0      | 0     | 7     |
| Single-Unit Trucks | 2          | 0     | 0     | 0      | 2     | 2                            | 20    | 0     | 0      | 22    | 15                           | 8     | 0     | 0      | 23    | 0                            | 0     | 0     | 0      | 0     | 47    |
| Articulated Trucks | 1          | 0     | 0     | 0      | 1     | 0                            | 2     | 0     | 0      | 2     | 3                            | 1     | 0     | 0      | 4     | 0                            | 0     | 0     | 0      | 0     | 7     |
| Total Entering Leg | 4          | 0     | 0     | 0      | 4     | 4                            | 22    | 0     | 0      | 26    | 22                           | 9     | 0     | 0      | 31    | 0                            | 0     | 0     | 0      | 0     | 61    |
| Buses              |            |       |       |        | 2     |                              |       |       |        | 4     |                              |       |       |        | 0     |                              |       |       |        | 1     | 7     |
| Single-Unit Trucks |            |       |       |        | 10    |                              |       |       |        | 15    |                              |       |       |        | 0     |                              |       |       |        | 22    | 47    |
| Articulated Trucks |            |       |       |        | 1     |                              |       |       |        | 3     |                              |       |       |        | 0     |                              |       |       |        | 3     | 7     |
| Total Exiting Leg  |            |       |       |        | 13    |                              |       |       |        | 22    |                              |       |       |        | 0     |                              |       |       |        | 26    | 61    |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|          | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|----------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|          | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|          | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 6:00 AM  | 1          | 0    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 6:15 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 6:30 AM  | 2          | 0    | 0    | 0      | 2     | 1                            | 2    | 0    | 0      | 3     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 6:45 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| Total    | 5          | 0    | 0    | 0      | 5     | 2                            | 2    | 0    | 0      | 4     | 2                            | 1    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 12    |
| 7:00 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 7:15 AM  | 2          | 0    | 0    | 0      | 2     | 1                            | 1    | 0    | 0      | 2     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 7:30 AM  | 2          | 0    | 0    | 0      | 2     | 1                            | 1    | 0    | 0      | 2     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 7:45 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| Total    | 6          | 0    | 0    | 0      | 6     | 2                            | 2    | 0    | 0      | 4     | 4                            | 1    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 15    |
| 8:00 AM  | 0          | 0    | 0    | 0      | 0     | 1                            | 3    | 0    | 0      | 4     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 8:15 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 1                            | 3    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 8:30 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 8:45 AM  | 1          | 0    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2     |
| Total    | 3          | 0    | 0    | 0      | 3     | 2                            | 4    | 0    | 0      | 6     | 5                            | 3    | 0    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 17    |
| 9:00 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 9:15 AM  | 0          | 0    | 0    | 0      | 0     | 1                            | 3    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 4     |
| 9:30 AM  | 0          | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 9:45 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| Total    | 2          | 0    | 0    | 0      | 2     | 2                            | 3    | 0    | 0      | 5     | 2                            | 1    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 10    |
| 10:00 AM | 1          | 0    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 10:15 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 10:30 AM | 2          | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 10:45 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| Total    | 3          | 0    | 0    | 0      | 3     | 1                            | 0    | 0    | 0      | 1     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 11:00 AM | 1          | 0    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 11:15 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 11:30 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 11:45 AM | 0          | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| Total    | 1          | 0    | 0    | 0      | 1     | 2                            | 1    | 0    | 0      | 3     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 12:00 PM | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 12:15 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 12:30 PM | 0          | 0    | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 12:45 PM | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| Total    | 2          | 0    | 0    | 0      | 2     | 1                            | 2    | 0    | 0      | 3     | 2                            | 1    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 8     |
| 1:00 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 1:15 PM  | 0          | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 1:30 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 1:45 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| Total    | 1          | 0    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 2:00 PM  | 0          | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 2:15 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 2:30 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 2:45 PM  | 0          | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| Total    | 1          | 0    | 0    | 0      | 1     | 2                            | 0    | 0    | 0      | 2     | 4                            | 0    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 7     |
| 3:00 PM  | 2          | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 4     |
| 3:15 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 3:30 PM  | 0          | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 3:45 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 4     |
| Total    | 3          | 0    | 0    | 0      | 3     | 2                            | 2    | 0    | 0      | 4     | 4                            | 1    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 12    |
| 4:00 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 4:15 PM  | 0          | 0    | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 4:30 PM  | 1          | 0    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 4     |
| 4:45 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| Total    | 2          | 0    | 0    | 0      | 2     | 2                            | 1    | 0    | 0      | 3     | 5                            | 1    | 0    | 0      | 6     | 0                            | 0    | 0    | 0      | 0     | 11    |
| 5:00 PM  | 0          | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 5:15 PM  | 2          | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 2                            | 2    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 6     |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|                   | Elm Street |          |          |          |          | Washington Street (Route 16) |          |          |          |          | Washington Street (Route 16) |          |          |          |          | Washington Street (Route 16) |          |          |          |           | Total |     |
|-------------------|------------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|------------------------------|----------|----------|----------|----------|------------------------------|----------|----------|----------|-----------|-------|-----|
|                   | from North |          |          |          |          | from East                    |          |          |          |          | from South                   |          |          |          |          | from West                    |          |          |          |           |       |     |
|                   | Right      | Thru     | Left     | U-Turn   | Total    | Right                        | Thru     | Left     | U-Turn   | Total    | Right                        | Thru     | Left     | U-Turn   | Total    | Right                        | Thru     | Left     | U-Turn   | Total     |       |     |
| 5:30 PM           | 0          | 0        | 0        | 0        | 0        | 2                            | 0        | 0        | 0        | 2        | 0                            | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         | 2     |     |
| 5:45 PM           | 0          | 0        | 0        | 0        | 0        | 0                            | 2        | 0        | 0        | 2        | 1                            | 0        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0         | 3     |     |
| <b>Total</b>      | <b>2</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>3</b>                     | <b>2</b> | <b>0</b> | <b>0</b> | <b>5</b> | <b>3</b>                     | <b>2</b> | <b>0</b> | <b>0</b> | <b>5</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>12</b> |       |     |
| 6:00 PM           | 1          | 0        | 0        | 0        | 1        | 1                            | 0        | 0        | 0        | 1        | 3                            | 0        | 0        | 0        | 3        | 0                            | 0        | 0        | 0        | 0         | 5     |     |
| 6:15 PM           | 0          | 0        | 0        | 0        | 0        | 0                            | 1        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         | 1     |     |
| 6:30 PM           | 1          | 0        | 0        | 0        | 1        | 1                            | 0        | 0        | 0        | 1        | 1                            | 0        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0         | 3     |     |
| 6:45 PM           | 0          | 0        | 0        | 0        | 0        | 1                            | 0        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         | 1     |     |
| <b>Total</b>      | <b>2</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>3</b>                     | <b>1</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>4</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>10</b> |       |     |
| 7:00 PM           | 1          | 0        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0        | 1                            | 0        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0         | 2     |     |
| 7:15 PM           | 2          | 0        | 0        | 0        | 2        | 1                            | 0        | 0        | 0        | 1        | 2                            | 0        | 0        | 0        | 2        | 0                            | 0        | 0        | 0        | 0         | 5     |     |
| 7:30 PM           | 0          | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0        | 0                            | 0        | 0        | 0        | 0         | 0     |     |
| 7:45 PM           | 2          | 0        | 0        | 0        | 2        | 1                            | 0        | 0        | 0        | 1        | 1                            | 0        | 0        | 0        | 1        | 0                            | 0        | 0        | 0        | 0         | 4     |     |
| <b>Total</b>      | <b>5</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>5</b> | <b>2</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> | <b>4</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>11</b> |       |     |
| Grand Total       | 38         | 0        | 0        | 0        | 38       | 27                           | 20       | 0        | 0        | 47       | 44                           | 11       | 0        | 0        | 55       | 0                            | 0        | 0        | 0        | 0         | 140   |     |
| Approach %        | 100.0      | 0.0      | 0.0      | 0.0      |          | 57.4                         | 42.6     | 0.0      | 0.0      |          | 80.0                         | 20.0     | 0.0      | 0.0      |          | 0.0                          | 0.0      | 0.0      | 0.0      |           |       |     |
| Total %           | 27.1       | 0.0      | 0.0      | 0.0      | 27.1     | 19.3                         | 14.3     | 0.0      | 0.0      | 33.6     | 31.4                         | 7.9      | 0.0      | 0.0      | 39.3     | 0.0                          | 0.0      | 0.0      | 0.0      | 0.0       |       |     |
| Exiting Leg Total |            |          |          |          | 38       |                              |          |          |          | 44       |                              |          |          |          | 0        |                              |          |          |          |           | 58    | 140 |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                  | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                  | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                  | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 7:15 AM          | 2          | 0     | 0     | 0      | 2     | 1                            | 1     | 0     | 0      | 2     | 1                            | 1     | 0     | 0      | 2     | 0                            | 0     | 0     | 0      | 0     | 6     |
| 7:30 AM          | 2          | 0     | 0     | 0      | 2     | 1                            | 1     | 0     | 0      | 2     | 2                            | 0     | 0     | 0      | 2     | 0                            | 0     | 0     | 0      | 0     | 6     |
| 7:45 AM          | 1          | 0     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 1     |
| 8:00 AM          | 0          | 0     | 0     | 0      | 0     | 1                            | 3     | 0     | 0      | 4     | 2                            | 0     | 0     | 0      | 2     | 0                            | 0     | 0     | 0      | 0     | 6     |
| Total Volume     | 5          | 0     | 0     | 0      | 5     | 3                            | 5     | 0     | 0      | 8     | 5                            | 1     | 0     | 0      | 6     | 0                            | 0     | 0     | 0      | 0     | 19    |
| % Approach Total | 100.0      | 0.0   | 0.0   | 0.0    |       | 37.5                         | 62.5  | 0.0   | 0.0    |       | 83.3                         | 16.7  | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF              | 0.625      | 0.000 | 0.000 | 0.000  | 0.625 | 0.750                        | 0.417 | 0.000 | 0.000  | 0.500 | 0.625                        | 0.250 | 0.000 | 0.000  | 0.750 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.792 |
| Entering Leg     | 5          | 0     | 0     | 0      | 5     | 3                            | 5     | 0     | 0      | 8     | 5                            | 1     | 0     | 0      | 6     | 0                            | 0     | 0     | 0      | 0     | 19    |
| Exiting Leg      |            |       |       |        | 4     |                              |       |       |        | 5     |                              |       |       | 0      |       |                              |       |       |        | 10    | 19    |
| Total            |            |       |       |        | 9     |                              |       |       |        | 13    |                              |       |       | 6      |       |                              |       |       |        | 10    | 38    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                  | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                  | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 11:45 AM         | 0          | 0     | 0     | 0      | 0     | 1                            | 0     | 0     | 0      | 1     | 1                            | 0     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 2     |
| 12:00 PM         | 1          | 0     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 1                            | 0     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 2     |
| 12:15 PM         | 0          | 0     | 0     | 0      | 0     | 0                            | 1     | 0     | 0      | 1     | 0                            | 1     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 2     |
| 12:30 PM         | 0          | 0     | 0     | 0      | 0     | 1                            | 1     | 0     | 0      | 2     | 0                            | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 2     |
| Total Volume     | 1          | 0     | 0     | 0      | 1     | 2                            | 2     | 0     | 0      | 4     | 2                            | 1     | 0     | 0      | 3     | 0                            | 0     | 0     | 0      | 0     | 8     |
| % Approach Total | 100.0      | 0.0   | 0.0   | 0.0    |       | 50.0                         | 50.0  | 0.0   | 0.0    |       | 66.7                         | 33.3  | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF              | 0.250      | 0.000 | 0.000 | 0.000  | 0.250 | 0.500                        | 0.500 | 0.000 | 0.000  | 0.500 | 0.500                        | 0.250 | 0.000 | 0.000  | 0.750 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 1.000 |
| Entering Leg     | 1          | 0     | 0     | 0      | 1     | 2                            | 2     | 0     | 0      | 4     | 2                            | 1     | 0     | 0      | 3     | 0                            | 0     | 0     | 0      | 0     | 8     |
| Exiting Leg      |            |       |       |        | 3     |                              |       |       |        | 2     |                              |       |       | 0      |       |                              |       |       |        | 3     | 8     |
| Total            |            |       |       |        | 4     |                              |       |       |        | 6     |                              |       |       | 3      |       |                              |       |       |        | 3     | 16    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|---------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|         | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|         | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 5:15 PM | 2          | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 2                            | 2    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 5:30 PM | 0          | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 5:45 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 2    | 0    | 0      | 2     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Buses**

|                  | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                  | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                  | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 6:00 PM          | 1          | 0     | 0     | 0      | 1     | 1                            | 0     | 0     | 0      | 1     | 3                            | 0     | 0     | 0      | 3     | 0                            | 0     | 0     | 0      | 0     | 5     |
| Total Volume     | 3          | 0     | 0     | 0      | 3     | 3                            | 2     | 0     | 0      | 5     | 6                            | 2     | 0     | 0      | 8     | 0                            | 0     | 0     | 0      | 0     | 16    |
| % Approach Total | 100.0      | 0.0   | 0.0   | 0.0    |       | 60.0                         | 40.0  | 0.0   | 0.0    |       | 75.0                         | 25.0  | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF              | 0.375      | 0.000 | 0.000 | 0.000  | 0.375 | 0.375                        | 0.250 | 0.000 | 0.000  | 0.625 | 0.500                        | 0.250 | 0.000 | 0.000  | 0.500 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.667 |
| Entering Leg     | 3          | 0     | 0     | 0      | 3     | 3                            | 2     | 0     | 0      | 5     | 6                            | 2     | 0     | 0      | 8     | 0                            | 0     | 0     | 0      | 0     | 16    |
| Exiting Leg      |            |       |       |        | 5     |                              |       |       |        | 6     |                              |       |       |        | 0     |                              |       |       |        | 5     | 16    |
| Total            |            |       |       |        | 8     |                              |       |       |        | 11    |                              |       |       |        | 8     |                              |       |       |        | 5     | 32    |



PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Single-Unit Trucks**

|          | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|----------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|          | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|          | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 6:00 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 3                            | 0    | 1    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 6:15 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 0    | 0      | 3     | 5                            | 0    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 8     |
| 6:30 AM  | 0          | 0    | 0    | 0      | 0     | 1                            | 2    | 0    | 0      | 3     | 2                            | 1    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 6:45 AM  | 2          | 0    | 0    | 0      | 2     | 2                            | 2    | 0    | 0      | 4     | 9                            | 0    | 0    | 0      | 9     | 0                            | 0    | 0    | 0      | 0     | 15    |
| Total    | 3          | 0    | 0    | 0      | 3     | 3                            | 8    | 0    | 0      | 11    | 19                           | 1    | 1    | 0      | 21    | 0                            | 0    | 0    | 0      | 0     | 35    |
| 7:00 AM  | 3          | 0    | 0    | 0      | 3     | 0                            | 1    | 0    | 0      | 1     | 5                            | 0    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 9     |
| 7:15 AM  | 2          | 0    | 0    | 0      | 2     | 0                            | 3    | 0    | 0      | 3     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 8     |
| 7:30 AM  | 1          | 0    | 0    | 0      | 1     | 1                            | 5    | 0    | 0      | 6     | 11                           | 0    | 0    | 0      | 11    | 0                            | 0    | 0    | 0      | 0     | 18    |
| 7:45 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 2                            | 2    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 5     |
| Total    | 6          | 0    | 0    | 0      | 6     | 1                            | 10   | 0    | 0      | 11    | 21                           | 2    | 0    | 0      | 23    | 0                            | 0    | 0    | 0      | 0     | 40    |
| 8:00 AM  | 3          | 0    | 0    | 0      | 3     | 0                            | 2    | 0    | 0      | 2     | 8                            | 0    | 0    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 13    |
| 8:15 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 0    | 0      | 3     | 4                            | 1    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 8     |
| 8:30 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 5    | 0    | 0      | 5     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 8     |
| 8:45 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 5    | 0    | 0      | 5     | 2                            | 2    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 9     |
| Total    | 3          | 0    | 0    | 0      | 3     | 0                            | 15   | 0    | 0      | 15    | 17                           | 3    | 0    | 0      | 20    | 0                            | 0    | 0    | 0      | 0     | 38    |
| 9:00 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 2    | 0    | 0      | 2     | 6                            | 1    | 0    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 10    |
| 9:15 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 6                            | 2    | 0    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 9     |
| 9:30 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 4    | 0    | 0      | 4     | 6                            | 1    | 0    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 12    |
| 9:45 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 10   | 0    | 0      | 10    | 6                            | 2    | 0    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 18    |
| Total    | 2          | 0    | 0    | 0      | 2     | 0                            | 17   | 0    | 0      | 17    | 24                           | 6    | 0    | 0      | 30    | 0                            | 0    | 0    | 0      | 0     | 49    |
| 10:00 AM | 1          | 0    | 0    | 0      | 1     | 0                            | 6    | 0    | 0      | 6     | 3                            | 2    | 3    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 15    |
| 10:15 AM | 1          | 0    | 0    | 0      | 1     | 1                            | 4    | 0    | 0      | 5     | 5                            | 0    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 11    |
| 10:30 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 7    | 0    | 0      | 7     | 3                            | 1    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 11    |
| 10:45 AM | 3          | 0    | 0    | 0      | 3     | 1                            | 5    | 0    | 0      | 6     | 7                            | 0    | 0    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 16    |
| Total    | 5          | 0    | 0    | 0      | 5     | 2                            | 22   | 0    | 0      | 24    | 18                           | 3    | 3    | 0      | 24    | 0                            | 0    | 0    | 0      | 0     | 53    |
| 11:00 AM | 1          | 0    | 0    | 0      | 1     | 0                            | 4    | 0    | 0      | 4     | 10                           | 0    | 0    | 0      | 10    | 0                            | 0    | 0    | 0      | 0     | 15    |
| 11:15 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 2    | 0    | 0      | 2     | 3                            | 1    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 11:30 AM | 2          | 0    | 0    | 0      | 2     | 0                            | 11   | 0    | 0      | 11    | 3                            | 3    | 1    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 20    |
| 11:45 AM | 2          | 0    | 0    | 0      | 2     | 1                            | 2    | 0    | 0      | 3     | 2                            | 0    | 1    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 8     |
| Total    | 5          | 0    | 0    | 0      | 5     | 1                            | 19   | 0    | 0      | 20    | 18                           | 4    | 2    | 0      | 24    | 0                            | 0    | 0    | 0      | 0     | 49    |
| 12:00 PM | 2          | 0    | 0    | 0      | 2     | 0                            | 6    | 0    | 0      | 6     | 5                            | 3    | 0    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 16    |
| 12:15 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 0    | 0      | 3     | 4                            | 1    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 8     |
| 12:30 PM | 1          | 0    | 0    | 0      | 1     | 1                            | 6    | 0    | 0      | 7     | 4                            | 2    | 0    | 0      | 6     | 0                            | 0    | 0    | 0      | 0     | 14    |
| 12:45 PM | 0          | 0    | 0    | 0      | 0     | 1                            | 3    | 0    | 0      | 4     | 8                            | 4    | 0    | 0      | 12    | 0                            | 0    | 0    | 0      | 0     | 16    |
| Total    | 3          | 0    | 0    | 0      | 3     | 2                            | 18   | 0    | 0      | 20    | 21                           | 10   | 0    | 0      | 31    | 0                            | 0    | 0    | 0      | 0     | 54    |
| 1:00 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 4    | 0    | 0      | 4     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 8     |
| 1:15 PM  | 1          | 0    | 0    | 0      | 1     | 1                            | 8    | 0    | 0      | 9     | 3                            | 1    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 14    |
| 1:30 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 0    | 0      | 3     | 4                            | 0    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 7     |
| 1:45 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 6                            | 1    | 0    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 9     |
| Total    | 3          | 0    | 0    | 0      | 3     | 1                            | 16   | 0    | 0      | 17    | 16                           | 2    | 0    | 0      | 18    | 0                            | 0    | 0    | 0      | 0     | 38    |
| 2:00 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 8    | 0    | 0      | 8     | 4                            | 3    | 0    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 15    |
| 2:15 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 0    | 0      | 3     | 4                            | 4    | 0    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 11    |
| 2:30 PM  | 2          | 0    | 0    | 0      | 2     | 0                            | 4    | 0    | 0      | 4     | 3                            | 1    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 10    |
| 2:45 PM  | 0          | 0    | 0    | 0      | 0     | 2                            | 5    | 0    | 0      | 7     | 4                            | 0    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 11    |
| Total    | 2          | 0    | 0    | 0      | 2     | 2                            | 20   | 0    | 0      | 22    | 15                           | 8    | 0    | 0      | 23    | 0                            | 0    | 0    | 0      | 0     | 47    |
| 3:00 PM  | 2          | 0    | 0    | 0      | 2     | 0                            | 2    | 0    | 0      | 2     | 1                            | 2    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 7     |
| 3:15 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 3:30 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 3    | 0    | 0      | 3     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 7     |
| 3:45 PM  | 0          | 0    | 0    | 0      | 0     | 1                            | 2    | 0    | 0      | 3     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 5     |
| Total    | 3          | 0    | 0    | 0      | 3     | 1                            | 8    | 0    | 0      | 9     | 7                            | 2    | 0    | 0      | 9     | 0                            | 0    | 0    | 0      | 0     | 21    |
| 4:00 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 4:15 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 3                            | 2    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 5     |
| 4:30 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 2    | 0    | 0      | 2     | 4                            | 0    | 1    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 7     |
| 4:45 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 2    | 0    | 0      | 2     | 3                            | 0    | 1    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 6     |
| Total    | 1          | 0    | 0    | 0      | 1     | 0                            | 4    | 0    | 0      | 4     | 12                           | 2    | 2    | 0      | 16    | 0                            | 0    | 0    | 0      | 0     | 21    |
| 5:00 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 5:15 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 4                            | 0    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 6     |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Single-Unit Trucks**

|                    | Elm Street |          |          |          |           | Washington Street (Route 16) |            |          |          |            | Washington Street (Route 16) |           |          |          |            | Washington Street (Route 16) |          |          |          |          | Total      |
|--------------------|------------|----------|----------|----------|-----------|------------------------------|------------|----------|----------|------------|------------------------------|-----------|----------|----------|------------|------------------------------|----------|----------|----------|----------|------------|
|                    | from North |          |          |          |           | from East                    |            |          |          |            | from South                   |           |          |          |            | from West                    |          |          |          |          |            |
|                    | Right      | Thru     | Left     | U-Turn   | Total     | Right                        | Thru       | Left     | U-Turn   | Total      | Right                        | Thru      | Left     | U-Turn   | Total      | Right                        | Thru     | Left     | U-Turn   | Total    |            |
| 5:30 PM            | 2          | 0        | 0        | 0        | 2         | 0                            | 1          | 0        | 0        | 1          | 1                            | 0         | 0        | 0        | 1          | 0                            | 0        | 0        | 0        | 0        | 4          |
| 5:45 PM            | 0          | 0        | 0        | 0        | 0         | 0                            | 5          | 0        | 0        | 5          | 2                            | 0         | 1        | 0        | 3          | 0                            | 0        | 0        | 0        | 0        | 8          |
| <b>Total</b>       | <b>3</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b>  | <b>0</b>                     | <b>8</b>   | <b>0</b> | <b>0</b> | <b>8</b>   | <b>9</b>                     | <b>0</b>  | <b>1</b> | <b>0</b> | <b>10</b>  | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>21</b>  |
| 6:00 PM            | 0          | 0        | 0        | 0        | 0         | 1                            | 2          | 0        | 0        | 3          | 2                            | 1         | 0        | 0        | 3          | 0                            | 0        | 0        | 0        | 0        | 6          |
| 6:15 PM            | 0          | 0        | 0        | 0        | 0         | 0                            | 1          | 0        | 0        | 1          | 5                            | 1         | 0        | 0        | 6          | 0                            | 0        | 0        | 0        | 0        | 7          |
| 6:30 PM            | 0          | 0        | 0        | 0        | 0         | 0                            | 1          | 0        | 0        | 1          | 2                            | 0         | 0        | 0        | 2          | 0                            | 0        | 0        | 0        | 0        | 3          |
| 6:45 PM            | 0          | 0        | 0        | 0        | 0         | 0                            | 0          | 0        | 0        | 0          | 0                            | 0         | 0        | 0        | 0          | 0                            | 0        | 0        | 0        | 0        | 0          |
| <b>Total</b>       | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>  | <b>1</b>                     | <b>4</b>   | <b>0</b> | <b>0</b> | <b>5</b>   | <b>9</b>                     | <b>2</b>  | <b>0</b> | <b>0</b> | <b>11</b>  | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>16</b>  |
| 7:00 PM            | 0          | 0        | 0        | 0        | 0         | 0                            | 2          | 0        | 0        | 2          | 1                            | 0         | 0        | 0        | 1          | 0                            | 0        | 0        | 0        | 0        | 3          |
| 7:15 PM            | 0          | 0        | 0        | 0        | 0         | 0                            | 0          | 0        | 0        | 0          | 0                            | 0         | 0        | 0        | 0          | 0                            | 0        | 0        | 0        | 0        | 0          |
| 7:30 PM            | 0          | 0        | 0        | 0        | 0         | 0                            | 0          | 0        | 0        | 0          | 2                            | 0         | 0        | 0        | 2          | 0                            | 0        | 0        | 0        | 0        | 2          |
| 7:45 PM            | 0          | 0        | 0        | 0        | 0         | 0                            | 0          | 0        | 0        | 0          | 0                            | 0         | 0        | 0        | 0          | 0                            | 0        | 0        | 0        | 0        | 0          |
| <b>Total</b>       | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>  | <b>0</b>                     | <b>2</b>   | <b>0</b> | <b>0</b> | <b>2</b>   | <b>3</b>                     | <b>0</b>  | <b>0</b> | <b>0</b> | <b>3</b>   | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>5</b>   |
| <b>Grand Total</b> | <b>39</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>39</b> | <b>14</b>                    | <b>171</b> | <b>0</b> | <b>0</b> | <b>185</b> | <b>209</b>                   | <b>45</b> | <b>9</b> | <b>0</b> | <b>263</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>487</b> |
| Approach %         | 100.0      | 0.0      | 0.0      | 0.0      |           | 7.6                          | 92.4       | 0.0      | 0.0      |            | 79.5                         | 17.1      | 3.4      | 0.0      |            | 0.0                          | 0.0      | 0.0      | 0.0      |          |            |
| Total %            | 8.0        | 0.0      | 0.0      | 0.0      | 8.0       | 2.9                          | 35.1       | 0.0      | 0.0      | 38.0       | 42.9                         | 9.2       | 1.8      | 0.0      | 54.0       | 0.0                          | 0.0      | 0.0      | 0.0      | 0.0      |            |
| Exiting Leg Total  | 59         |          |          |          |           | 209                          |            |          |          |            | 0                            |           |          |          |            | 219                          |          |          |          |          | 487        |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Elm Street |          |          |          |          | Washington Street (Route 16) |           |          |          |           | Washington Street (Route 16) |          |          |          |           | Washington Street (Route 16) |          |          |          |          | Total      |
|---------------------|------------|----------|----------|----------|----------|------------------------------|-----------|----------|----------|-----------|------------------------------|----------|----------|----------|-----------|------------------------------|----------|----------|----------|----------|------------|
|                     | from North |          |          |          |          | from East                    |           |          |          |           | from South                   |          |          |          |           | from West                    |          |          |          |          |            |
|                     | Right      | Thru     | Left     | U-Turn   | Total    | Right                        | Thru      | Left     | U-Turn   | Total     | Right                        | Thru     | Left     | U-Turn   | Total     | Right                        | Thru     | Left     | U-Turn   | Total    |            |
| 9:30 AM             | 1          | 0        | 0        | 0        | 1        | 0                            | 4         | 0        | 0        | 4         | 6                            | 1        | 0        | 0        | 7         | 0                            | 0        | 0        | 0        | 0        | 12         |
| 9:45 AM             | 0          | 0        | 0        | 0        | 0        | 0                            | 10        | 0        | 0        | 10        | 6                            | 2        | 0        | 0        | 8         | 0                            | 0        | 0        | 0        | 0        | 18         |
| 10:00 AM            | 1          | 0        | 0        | 0        | 1        | 0                            | 6         | 0        | 0        | 6         | 3                            | 2        | 3        | 0        | 8         | 0                            | 0        | 0        | 0        | 0        | 15         |
| 10:15 AM            | 1          | 0        | 0        | 0        | 1        | 1                            | 4         | 0        | 0        | 5         | 5                            | 0        | 0        | 0        | 5         | 0                            | 0        | 0        | 0        | 0        | 11         |
| <b>Total Volume</b> | <b>3</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b> | <b>1</b>                     | <b>24</b> | <b>0</b> | <b>0</b> | <b>25</b> | <b>20</b>                    | <b>5</b> | <b>3</b> | <b>0</b> | <b>28</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>56</b>  |
| % Approach Total    | 100.0      | 0.0      | 0.0      | 0.0      |          | 4.0                          | 96.0      | 0.0      | 0.0      |           | 71.4                         | 17.9     | 10.7     | 0.0      |           | 0.0                          | 0.0      | 0.0      | 0.0      |          |            |
| PHF                 | 0.750      | 0.000    | 0.000    | 0.000    | 0.750    | 0.250                        | 0.600     | 0.000    | 0.000    | 0.625     | 0.833                        | 0.625    | 0.250    | 0.000    | 0.875     | 0.000                        | 0.000    | 0.000    | 0.000    | 0.000    | 0.778      |
| Entering Leg        | 3          | 0        | 0        | 0        | 3        | 1                            | 24        | 0        | 0        | 25        | 20                           | 5        | 3        | 0        | 28        | 0                            | 0        | 0        | 0        | 0        | 56         |
| Exiting Leg         | 6          |          |          |          |          | 20                           |           |          |          |           | 0                            |          |          |          |           | 30                           |          |          |          |          | 56         |
| <b>Total</b>        | <b>9</b>   |          |          |          |          | <b>45</b>                    |           |          |          |           | <b>28</b>                    |          |          |          |           | <b>30</b>                    |          |          |          |          | <b>112</b> |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Elm Street |          |          |          |          | Washington Street (Route 16) |           |          |          |           | Washington Street (Route 16) |          |          |          |           | Washington Street (Route 16) |          |          |          |          | Total      |
|---------------------|------------|----------|----------|----------|----------|------------------------------|-----------|----------|----------|-----------|------------------------------|----------|----------|----------|-----------|------------------------------|----------|----------|----------|----------|------------|
|                     | from North |          |          |          |          | from East                    |           |          |          |           | from South                   |          |          |          |           | from West                    |          |          |          |          |            |
|                     | Right      | Thru     | Left     | U-Turn   | Total    | Right                        | Thru      | Left     | U-Turn   | Total     | Right                        | Thru     | Left     | U-Turn   | Total     | Right                        | Thru     | Left     | U-Turn   | Total    |            |
| 10:45 AM            | 3          | 0        | 0        | 0        | 3        | 1                            | 5         | 0        | 0        | 6         | 7                            | 0        | 0        | 0        | 7         | 0                            | 0        | 0        | 0        | 0        | 16         |
| 11:00 AM            | 1          | 0        | 0        | 0        | 1        | 0                            | 4         | 0        | 0        | 4         | 10                           | 0        | 0        | 0        | 10        | 0                            | 0        | 0        | 0        | 0        | 15         |
| 11:15 AM            | 0          | 0        | 0        | 0        | 0        | 0                            | 2         | 0        | 0        | 2         | 3                            | 1        | 0        | 0        | 4         | 0                            | 0        | 0        | 0        | 0        | 6          |
| 11:30 AM            | 2          | 0        | 0        | 0        | 2        | 0                            | 11        | 0        | 0        | 11        | 3                            | 3        | 1        | 0        | 7         | 0                            | 0        | 0        | 0        | 0        | 20         |
| <b>Total Volume</b> | <b>6</b>   | <b>0</b> | <b>0</b> | <b>0</b> | <b>6</b> | <b>1</b>                     | <b>22</b> | <b>0</b> | <b>0</b> | <b>23</b> | <b>23</b>                    | <b>4</b> | <b>1</b> | <b>0</b> | <b>28</b> | <b>0</b>                     | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>57</b>  |
| % Approach Total    | 100.0      | 0.0      | 0.0      | 0.0      |          | 4.3                          | 95.7      | 0.0      | 0.0      |           | 82.1                         | 14.3     | 3.6      | 0.0      |           | 0.0                          | 0.0      | 0.0      | 0.0      |          |            |
| PHF                 | 0.500      | 0.000    | 0.000    | 0.000    | 0.500    | 0.250                        | 0.500     | 0.000    | 0.000    | 0.523     | 0.575                        | 0.333    | 0.250    | 0.000    | 0.700     | 0.000                        | 0.000    | 0.000    | 0.000    | 0.000    | 0.713      |
| Entering Leg        | 6          | 0        | 0        | 0        | 6        | 1                            | 22        | 0        | 0        | 23        | 23                           | 4        | 1        | 0        | 28        | 0                            | 0        | 0        | 0        | 0        | 57         |
| Exiting Leg         | 5          |          |          |          |          | 23                           |           |          |          |           | 0                            |          |          |          |           | 29                           |          |          |          |          | 57         |
| <b>Total</b>        | <b>11</b>  |          |          |          |          | <b>46</b>                    |           |          |          |           | <b>28</b>                    |          |          |          |           | <b>29</b>                    |          |          |          |          | <b>114</b> |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|---------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|         | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|         | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 2:00 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 8    | 0    | 0      | 8     | 4                            | 3    | 0    | 0      | 7     | 0                            | 0    | 0    | 0      | 0     | 15    |
| 2:15 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 0    | 0      | 3     | 4                            | 4    | 0    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 11    |
| 2:30 PM | 2          | 0    | 0    | 0      | 2     | 0                            | 4    | 0    | 0      | 4     | 3                            | 1    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 10    |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Single-Unit Trucks**

|                  | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                  | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                  | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 2:45 PM          | 0          | 0     | 0     | 0      | 0     | 2                            | 5     | 0     | 0      | 7     | 4                            | 0     | 0     | 0      | 4     | 0                            | 0     | 0     | 0      | 0     | 11    |
| Total Volume     | 2          | 0     | 0     | 0      | 2     | 2                            | 20    | 0     | 0      | 22    | 15                           | 8     | 0     | 0      | 23    | 0                            | 0     | 0     | 0      | 0     | 47    |
| % Approach Total | 100.0      | 0.0   | 0.0   | 0.0    |       | 9.1                          | 90.9  | 0.0   | 0.0    |       | 65.2                         | 34.8  | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF              | 0.250      | 0.000 | 0.000 | 0.000  | 0.250 | 0.250                        | 0.625 | 0.000 | 0.000  | 0.688 | 0.938                        | 0.500 | 0.000 | 0.000  | 0.719 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.783 |
| Entering Leg     | 2          | 0     | 0     | 0      | 2     | 2                            | 20    | 0     | 0      | 22    | 15                           | 8     | 0     | 0      | 23    | 0                            | 0     | 0     | 0      | 0     | 47    |
| Exiting Leg      |            |       |       |        | 10    |                              |       |       |        | 15    |                              |       |       |        | 0     |                              |       |       |        | 22    | 47    |
| Total            |            |       |       |        | 12    |                              |       |       |        | 37    |                              |       |       |        | 23    |                              |       |       |        | 22    | 94    |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|          | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|----------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|          | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|          | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 6:00 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 1    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 6:15 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 6:30 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 6:45 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 2     |
| Total    | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 1    | 0      | 4     | 4                            | 0    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 8     |
| 7:00 AM  | 0          | 0    | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 7:15 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 7:30 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 7:45 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 2     |
| Total    | 1          | 0    | 0    | 0      | 1     | 1                            | 1    | 0    | 0      | 2     | 5                            | 0    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 8     |
| 8:00 AM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 8:15 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 1    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 8:30 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 4    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 4     |
| 8:45 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| Total    | 1          | 0    | 0    | 0      | 1     | 0                            | 6    | 0    | 0      | 6     | 2                            | 0    | 1    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 10    |
| 9:00 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 9:15 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 9:30 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 9:45 AM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 4     |
| Total    | 0          | 0    | 0    | 0      | 0     | 0                            | 2    | 0    | 0      | 2     | 5                            | 0    | 0    | 0      | 5     | 0                            | 0    | 0    | 0      | 0     | 7     |
| 10:00 AM | 0          | 0    | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 10:15 AM | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 10:30 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 10:45 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| Total    | 1          | 0    | 0    | 0      | 1     | 1                            | 3    | 0    | 0      | 4     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 8     |
| 11:00 AM | 0          | 0    | 0    | 0      | 0     | 1                            | 1    | 0    | 0      | 2     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 11:15 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 11:30 AM | 0          | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 11:45 AM | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1     |
| Total    | 0          | 0    | 0    | 0      | 0     | 2                            | 2    | 0    | 0      | 4     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 6     |
| 12:00 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 12:15 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 2    | 0    | 0      | 2     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 12:30 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2                            | 1    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 12:45 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| Total    | 0          | 0    | 0    | 0      | 0     | 0                            | 3    | 0    | 0      | 3     | 6                            | 2    | 0    | 0      | 8     | 0                            | 0    | 0    | 0      | 0     | 11    |
| 1:00 PM  | 0          | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 1:15 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 1:30 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 1:45 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 2     |
| Total    | 2          | 0    | 0    | 0      | 2     | 1                            | 1    | 0    | 0      | 2     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 7     |
| 2:00 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 2:15 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 2:30 PM  | 1          | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 2:45 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1     |
| Total    | 1          | 0    | 0    | 0      | 1     | 0                            | 2    | 0    | 0      | 2     | 3                            | 1    | 0    | 0      | 4     | 0                            | 0    | 0    | 0      | 0     | 7     |
| 3:00 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 3:15 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 3:30 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 3:45 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| Total    | 0          | 0    | 0    | 0      | 0     | 0                            | 2    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 4:00 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1     |
| 4:15 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |
| 4:30 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 4:45 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| Total    | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 5:00 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 5:15 PM  | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2     |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|                    | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|--------------------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|                    | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|                    | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 5:30 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 5:45 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0     |
| <b>Total</b>       | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 6:00 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 6:15 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 6:30 PM            | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 2                            | 0    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 6:45 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 1     |
| <b>Total</b>       | 1          | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3                            | 0    | 0    | 0      | 3     | 0                            | 0    | 0    | 0      | 0     | 4     |
| 7:00 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 7:15 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 7:30 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 7:45 PM            | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| <b>Total</b>       | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 1     |
| <b>Grand Total</b> | 7          | 0    | 0    | 0      | 7     | 5                            | 28   | 1    | 0      | 34    | 38                           | 5    | 1    | 0      | 44    | 0                            | 0    | 0    | 0      | 0     | 85    |
| Approach %         | 100.0      | 0.0  | 0.0  | 0.0    |       | 14.7                         | 82.4 | 2.9  | 0.0    |       | 86.4                         | 11.4 | 2.3  | 0.0    |       | 0.0                          | 0.0  | 0.0  | 0.0    |       |       |
| Total %            | 8.2        | 0.0  | 0.0  | 0.0    | 8.2   | 5.9                          | 32.9 | 1.2  | 0.0    | 40.0  | 44.7                         | 5.9  | 1.2  | 0.0    | 51.8  | 0.0                          | 0.0  | 0.0  | 0.0    | 0.0   |       |
| Exiting Leg Total  | 10         |      |      |        |       | 38                           |      |      |        |       | 1                            |      |      |        |       | 36                           |      |      |        |       | 85    |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                     | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|---------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                     | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                     | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 9:30 AM             | 0          | 0     | 0     | 0      | 0     | 0                            | 1     | 0     | 0      | 1     | 1                            | 0     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 0     |
| 9:45 AM             | 0          | 0     | 0     | 0      | 0     | 0                            | 1     | 0     | 0      | 1     | 3                            | 0     | 0     | 0      | 3     | 0                            | 0     | 0     | 0      | 0     | 4     |
| 10:00 AM            | 0          | 0     | 0     | 0      | 0     | 1                            | 1     | 0     | 0      | 2     | 1                            | 0     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 3     |
| 10:15 AM            | 1          | 0     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 2                            | 0     | 0     | 0      | 2     | 0                            | 0     | 0     | 0      | 0     | 3     |
| <b>Total Volume</b> | 1          | 0     | 0     | 0      | 1     | 1                            | 3     | 0     | 0      | 4     | 7                            | 0     | 0     | 0      | 7     | 0                            | 0     | 0     | 0      | 0     | 12    |
| % Approach Total    | 100.0      | 0.0   | 0.0   | 0.0    |       | 25.0                         | 75.0  | 0.0   | 0.0    |       | 100.0                        | 0.0   | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF                 | 0.250      | 0.000 | 0.000 | 0.000  | 0.250 | 0.250                        | 0.750 | 0.000 | 0.000  | 0.500 | 0.583                        | 0.000 | 0.000 | 0.000  | 0.583 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.750 |
| Entering Leg        | 1          | 0     | 0     | 0      | 1     | 1                            | 3     | 0     | 0      | 4     | 7                            | 0     | 0     | 0      | 7     | 0                            | 0     | 0     | 0      | 0     | 12    |
| Exiting Leg         | 1          |       |       |        |       | 7                            |       |       |        |       | 0                            |       |       |        |       | 4                            |       |       |        |       | 12    |
| <b>Total</b>        | 2          |       |       |        |       | 11                           |       |       |        |       | 7                            |       |       |        |       | 4                            |       |       |        |       | 24    |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                     | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|---------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                     | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                     | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 12:00 PM            | 0          | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 2                            | 0     | 0     | 0      | 2     | 0                            | 0     | 0     | 0      | 0     | 2     |
| 12:15 PM            | 0          | 0     | 0     | 0      | 0     | 0                            | 2     | 0     | 0      | 2     | 0                            | 1     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 3     |
| 12:30 PM            | 0          | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 2                            | 1     | 0     | 0      | 3     | 0                            | 0     | 0     | 0      | 0     | 3     |
| 12:45 PM            | 0          | 0     | 0     | 0      | 0     | 0                            | 1     | 0     | 0      | 1     | 2                            | 0     | 0     | 0      | 2     | 0                            | 0     | 0     | 0      | 0     | 3     |
| <b>Total Volume</b> | 0          | 0     | 0     | 0      | 0     | 0                            | 3     | 0     | 0      | 3     | 6                            | 2     | 0     | 0      | 8     | 0                            | 0     | 0     | 0      | 0     | 11    |
| % Approach Total    | 0.0        | 0.0   | 0.0   | 0.0    |       | 0.0                          | 100.0 | 0.0   | 0.0    |       | 75.0                         | 25.0  | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF                 | 0.000      | 0.000 | 0.000 | 0.000  | 0.000 | 0.000                        | 0.375 | 0.000 | 0.000  | 0.375 | 0.750                        | 0.500 | 0.000 | 0.000  | 0.667 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.917 |
| Entering Leg        | 0          | 0     | 0     | 0      | 0     | 0                            | 3     | 0     | 0      | 3     | 6                            | 2     | 0     | 0      | 8     | 0                            | 0     | 0     | 0      | 0     | 11    |
| Exiting Leg         | 2          |       |       |        |       | 6                            |       |       |        |       | 0                            |       |       |        |       | 3                            |       |       |        |       | 11    |
| <b>Total</b>        | 2          |       |       |        |       | 9                            |       |       |        |       | 8                            |       |       |        |       | 3                            |       |       |        |       | 22    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Elm Street |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Washington Street (Route 16) |      |      |        |       | Total |
|---------|------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|------------------------------|------|------|--------|-------|-------|
|         | from North |      |      |        |       | from East                    |      |      |        |       | from South                   |      |      |        |       | from West                    |      |      |        |       |       |
|         | Right      | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total | Right                        | Thru | Left | U-Turn | Total |       |
| 2:00 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 1    | 0    | 0      | 1     | 1                            | 1    | 0    | 0      | 2     | 0                            | 0    | 0    | 0      | 0     | 3     |
| 2:15 PM | 0          | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0                            | 0    | 0    | 0      | 0     | 0     |
| 2:30 PM | 1          | 0    | 0    | 0      | 1     | 0                            | 1    | 0    | 0      | 1     | 1                            | 0    | 0    | 0      | 1     | 0                            | 0    | 0    | 0      | 0     | 3     |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Articulated Trucks**

|                  | Elm Street |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Washington Street (Route 16) |       |       |        |       | Total |
|------------------|------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|------------------------------|-------|-------|--------|-------|-------|
|                  | from North |       |       |        |       | from East                    |       |       |        |       | from South                   |       |       |        |       | from West                    |       |       |        |       |       |
|                  | Right      | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total | Right                        | Thru  | Left  | U-Turn | Total |       |
| 2:45 PM          | 0          | 0     | 0     | 0      | 0     | 0                            | 0     | 0     | 0      | 0     | 1                            | 0     | 0     | 0      | 1     | 0                            | 0     | 0     | 0      | 0     | 1     |
| Total Volume     | 1          | 0     | 0     | 0      | 1     | 0                            | 2     | 0     | 0      | 2     | 3                            | 1     | 0     | 0      | 4     | 0                            | 0     | 0     | 0      | 0     | 7     |
| % Approach Total | 100.0      | 0.0   | 0.0   | 0.0    |       | 0.0                          | 100.0 | 0.0   | 0.0    |       | 75.0                         | 25.0  | 0.0   | 0.0    |       | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |
| PHF              | 0.250      | 0.000 | 0.000 | 0.000  | 0.250 | 0.000                        | 0.500 | 0.000 | 0.000  | 0.500 | 0.750                        | 0.250 | 0.000 | 0.000  | 0.500 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.583 |
| Entering Leg     | 1          | 0     | 0     | 0      | 1     | 0                            | 2     | 0     | 0      | 2     | 3                            | 1     | 0     | 0      | 4     | 0                            | 0     | 0     | 0      | 0     | 7     |
| Exiting Leg      |            |       |       |        | 1     |                              |       |       |        | 3     |                              |       |       |        | 0     |                              |       |       |        | 3     | 7     |
| Total            |            |       |       |        | 2     |                              |       |       |        | 5     |                              |       |       |        | 4     |                              |       |       |        | 3     | 14    |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Bicycles (on Roadway and Crosswalks)**

|          | Elm Street |      |      |        |       |       |       | Washington Street (Route 16) |      |      |        |       |       |       | Washington Street (Route 16) |      |      |        |       |       |       | Washington Street (Route 16) |      |      |        |       |       |       | Total |
|----------|------------|------|------|--------|-------|-------|-------|------------------------------|------|------|--------|-------|-------|-------|------------------------------|------|------|--------|-------|-------|-------|------------------------------|------|------|--------|-------|-------|-------|-------|
|          | from North |      |      |        |       |       |       | from East                    |      |      |        |       |       |       | from South                   |      |      |        |       |       |       | from West                    |      |      |        |       |       |       |       |
|          | Right      | Thru | Left | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru | Left | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru | Left | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 6:00 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 6:15 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 1      | 1     | 1     | 1     |       |
| 6:30 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 6:45 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 1    | 1      | 1     | 1     | 1     |       |
| 7:00 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 7:15 AM  | 0          | 0    | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 7:30 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 7:45 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| Total    | 0          | 0    | 0    | 0      | 1     | 0     | 1     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 2                            | 0    | 0    | 0      | 0     | 0     | 0     | 2                            | 0    | 0    | 0      | 0     | 0     | 4     |       |
| 8:00 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 8:15 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 8:30 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 8:45 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 9:00 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 9:15 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 9:30 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 9:45 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 1    | 0    | 0      | 0     | 0     | 2     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 2     |       |
| 10:00 AM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 10:15 AM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 10:30 AM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 10:45 AM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 1                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 2     |       |
| 11:00 AM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 11:15 AM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 11:30 AM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 11:45 AM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 12:00 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 12:15 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 12:30 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 12:45 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 1:00 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 1:15 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 1:30 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 1:45 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     | 1                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 2     |       |
| 2:00 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 2:15 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 2:30 PM  | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 1    | 0    | 0      | 0     | 1     | 2     | 2                            | 0    | 0    | 0      | 0     | 0     | 0     | 2                            | 0    | 0    | 0      | 0     | 0     | 5     |       |
| 2:45 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 3    | 0    | 0      | 0     | 1     | 4     | 2                            | 0    | 0    | 0      | 0     | 0     | 0     | 2                            | 0    | 0    | 0      | 0     | 0     | 7     |       |
| 3:00 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 3:15 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 3:30 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 3:45 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     | 1                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 0    | 0      | 0     | 0     | 2     |       |
| 4:00 PM  | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 1    | 0      | 1     | 0     | 2     | 3     |
| 4:15 PM  | 1          | 0    | 0    | 0      | 0     | 1     | 2     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 3     |       |
| 4:30 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 4:45 PM  | 1          | 0    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| Total    | 2          | 0    | 0    | 0      | 0     | 2     | 4     | 1                            | 0    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 1    | 0      | 1     | 0     | 7     |       |
| 5:00 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 5:15 PM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |

PDI File #: 218212 E  
 Location: N: Elm Street S: Washington Street (Route 16)  
 Location: E: Washington St (Route 16) W: Washington St (Route 16)  
 City, State: West Newton, MA  
 Client: BETA/J. Centracchio  
 Site Code: 5472-14  
 Count Date: Tuesday, October 19, 2021  
 Start Time: 6:00 AM  
 End Time: 8:00 PM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

|                   | Elm Street |      |      |        |       |       |       |      | Washington Street (Route 16) |      |      |        |       |       |       |     | Washington Street (Route 16) |      |      |        |       |       |       |     | Washington Street (Route 16) |      |      |        |       |       |       |  | Total |
|-------------------|------------|------|------|--------|-------|-------|-------|------|------------------------------|------|------|--------|-------|-------|-------|-----|------------------------------|------|------|--------|-------|-------|-------|-----|------------------------------|------|------|--------|-------|-------|-------|--|-------|
|                   | from North |      |      |        |       |       |       |      | from East                    |      |      |        |       |       |       |     | from South                   |      |      |        |       |       |       |     | from West                    |      |      |        |       |       |       |  |       |
|                   | Right      | Thru | Left | U-Turn | CW-EB | CW-WB | Total |      | Right                        | Thru | Left | U-Turn | CW-SB | CW-NB | Total |     | Right                        | Thru | Left | U-Turn | CW-WB | CW-EB | Total |     | Right                        | Thru | Left | U-Turn | CW-NB | CW-SB | Total |  |       |
| 5:30 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 0                            | 2    | 0    | 0      | 0     | 0     | 2     | 0   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 2     |       |       |  |       |
| 5:45 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 0                            | 1    | 0    | 0      | 0     | 0     | 1     | 1   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 2     |       |       |  |       |
| Total             | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 0                            | 4    | 0    | 0      | 0     | 0     | 4     | 1   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 5     |       |       |  |       |
| 6:00 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 0                            | 0    | 0    | 0      | 0     | 0     | 2     | 2   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 2     |       |       |  |       |
| 6:15 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 1                            | 1    | 0    | 0      | 0     | 0     | 2     | 0   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 2     |       |       |  |       |
| 6:30 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 0     |       |       |  |       |
| 6:45 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 0     |       |       |  |       |
| Total             | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 1                            | 1    | 0    | 0      | 0     | 0     | 2     | 2   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 4     |       |       |  |       |
| 7:00 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 1                            | 0    | 0    | 0      | 0     | 0     | 1     | 0   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 1     |       |       |  |       |
| 7:15 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 0     |       |       |  |       |
| 7:30 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 0     |       |       |  |       |
| 7:45 PM           | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 0     |       |       |  |       |
| Total             | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0    | 1                            | 0    | 0    | 0      | 0     | 0     | 1     | 0   | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0   | 0                            | 0    | 0    | 0      | 1     |       |       |  |       |
| Grand Total       | 2          | 0    | 0    | 0      | 1     | 3     | 6     | 6    | 6                            | 13   | 0    | 0      | 0     | 1     | 20    | 10  | 0                            | 0    | 0    | 0      | 0     | 0     | 10    | 0   | 0                            | 1    | 0    | 1      | 3     | 39    |       |  |       |
| Approach %        | 33.3       | 0.0  | 0.0  | 0.0    | 16.7  | 50.0  |       | 30.0 | 65.0                         | 0.0  | 0.0  | 0.0    | 5.0   |       | 100.0 | 0.0 | 0.0                          | 0.0  | 0.0  | 0.0    | 0.0   |       | 0.0   | 0.0 | 33.3                         | 0.0  | 33.3 | 33.3   |       |       |       |  |       |
| Total %           | 5.1        | 0.0  | 0.0  | 0.0    | 2.6   | 7.7   | 15.4  | 15.4 | 33.3                         | 0.0  | 0.0  | 0.0    | 2.6   | 51.3  | 25.6  | 0.0 | 0.0                          | 0.0  | 0.0  | 0.0    | 0.0   | 25.6  | 0.0   | 0.0 | 2.6                          | 0.0  | 2.6  | 7.7    |       |       |       |  |       |
| Exiting Leg Total | 11         |      |      |        |       |       |       |      | 11                           |      |      |        |       |       |       |     | 0                            |      |      |        |       |       |       |     | 17                           |      |      |        |       |       |       |  | 39    |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                  | Elm Street |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |  | Total |
|------------------|------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|--|-------|
|                  | from North |       |       |        |       |       |       |       | from East                    |       |       |        |       |       |       |       | from South                   |       |       |        |       |       |       |       | from West                    |       |       |        |       |       |       |  |       |
|                  | Right      | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-WB | CW-EB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-NB | CW-SB | Total |  |       |
| 7:00 AM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 1     | 0     | 0      | 0     | 0     | 1     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 1     |       |       |  |       |
| 7:15 AM          | 0          | 0     | 0     | 0      | 1     | 0     | 1     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 1     |       |       |  |       |
| 7:30 AM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 1     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 1     | 0                            | 0     | 0     | 0      | 1     |       |       |  |       |
| 7:45 AM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 1     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 1     | 0                            | 0     | 0     | 0      | 1     |       |       |  |       |
| Total Volume     | 0          | 0     | 0     | 0      | 1     | 0     | 1     | 0     | 0                            | 1     | 0     | 0      | 0     | 0     | 1     | 2     | 0                            | 0     | 0     | 0      | 0     | 0     | 2     | 0     | 0                            | 0     | 0     | 0      | 4     |       |       |  |       |
| % Approach Total | 0.0        | 0.0   | 0.0   | 0.0    | 100.0 | 0.0   |       | 0.0   | 100.0                        | 0.0   | 0.0   | 0.0    | 0.0   |       | 100.0 | 0.0   | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   |       | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0   | 0.0    |       |       |       |  |       |
| PHF              | 0.000      | 0.000 | 0.000 | 0.000  | 0.250 | 0.000 | 0.250 | 0.000 | 0.250                        | 0.000 | 0.000 | 0.000  | 0.250 |       | 0.500 | 0.000 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.500 |       | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000 | 0.000  | 1.000 |       |       |  |       |
| Entering Leg     | 0          | 0     | 0     | 0      | 1     | 0     | 1     | 0     | 1                            | 0     | 0     | 0      | 0     | 1     | 2     | 0     | 0                            | 0     | 0     | 0      | 0     | 2     | 0     | 0     | 0                            | 0     | 0     | 0      | 4     |       |       |  |       |
| Exiting Leg      | 1          |       |       |        |       |       |       |       | 2                            |       |       |        |       |       |       |       | 0                            |       |       |        |       |       |       |       | 1                            |       |       |        |       |       |       |  | 4     |
| Total            | 2          |       |       |        |       |       |       |       | 3                            |       |       |        |       |       |       |       | 2                            |       |       |        |       |       |       |       | 1                            |       |       |        |       |       |       |  | 8     |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                  | Elm Street |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |  | Total |
|------------------|------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|--|-------|
|                  | from North |       |       |        |       |       |       |       | from East                    |       |       |        |       |       |       |       | from South                   |       |       |        |       |       |       |       | from West                    |       |       |        |       |       |       |  |       |
|                  | Right      | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-WB | CW-EB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-NB | CW-SB | Total |  |       |
| 1:45 PM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     |       |       |  |       |
| 2:00 PM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 1     | 0     | 0      | 0     | 0     | 1     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 1     |       |       |  |       |
| 2:15 PM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     |       |       |  |       |
| 2:30 PM          | 0          | 0     | 0     | 0      | 0     | 1     | 1     | 0     | 1                            | 0     | 0     | 0      | 1     | 2     | 2     | 0     | 0                            | 0     | 0     | 0      | 0     | 2     | 0     | 0     | 0                            | 0     | 0     | 0      | 5     |       |       |  |       |
| Total Volume     | 0          | 0     | 0     | 0      | 0     | 1     | 1     | 0     | 2                            | 0     | 0     | 0      | 1     | 3     | 2     | 0     | 0                            | 0     | 0     | 0      | 2     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 6     |       |       |  |       |
| % Approach Total | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 100.0 |       | 0.0   | 66.7                         | 0.0   | 0.0   | 0.0    | 33.3  |       | 100.0 | 0.0   | 0.0                          | 0.0   | 0.0   | 0.0    |       | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0   |        |       |       |       |  |       |
| PHF              | 0.000      | 0.000 | 0.000 | 0.000  | 0.000 | 0.250 | 0.250 | 0.000 | 0.500                        | 0.000 | 0.000 | 0.250  | 0.375 |       | 0.250 | 0.000 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.250 |       | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.300 |       |       |  |       |
| Entering Leg     | 0          | 0     | 0     | 0      | 0     | 1     | 1     | 0     | 2                            | 0     | 0     | 0      | 1     | 3     | 2     | 0     | 0                            | 0     | 0     | 0      | 2     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 6     |       |       |  |       |
| Exiting Leg      | 1          |       |       |        |       |       |       |       | 3                            |       |       |        |       |       |       |       | 0                            |       |       |        |       |       |       |       | 2                            |       |       |        |       |       |       |  | 6     |
| Total            | 2          |       |       |        |       |       |       |       | 6                            |       |       |        |       |       |       |       | 2                            |       |       |        |       |       |       |       | 2                            |       |       |        |       |       |       |  | 12    |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Elm Street |      |      |        |       |       |       |   | Washington Street (Route 16) |      |      |        |       |       |       |   | Washington Street (Route 16) |      |      |        |       |       |       |   | Washington Street (Route 16) |      |      |        |       |       |       |  | Total |
|---------|------------|------|------|--------|-------|-------|-------|---|------------------------------|------|------|--------|-------|-------|-------|---|------------------------------|------|------|--------|-------|-------|-------|---|------------------------------|------|------|--------|-------|-------|-------|--|-------|
|         | from North |      |      |        |       |       |       |   | from East                    |      |      |        |       |       |       |   | from South                   |      |      |        |       |       |       |   | from West                    |      |      |        |       |       |       |  |       |
|         | Right      | Thru | Left | U-Turn | CW-EB | CW-WB | Total |   | Right                        | Thru | Left | U-Turn | CW-SB | CW-NB | Total |   | Right                        | Thru | Left | U-Turn | CW-WB | CW-EB | Total |   | Right                        | Thru | Left | U-Turn | CW-NB | CW-SB | Total |  |       |
| 5:30 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 2                            | 0    | 0    | 0      | 0     | 2     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 0    | 0    | 2      |       |       |       |  |       |
| 5:45 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 1                            | 0    | 0    | 0      | 0     | 1     | 1     | 0 | 0                            | 0    | 0    | 0      | 1     | 0     | 0     | 0 | 0                            | 0    | 0    | 2      |       |       |       |  |       |
| 6:00 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 2     | 0 | 0                            | 0    | 0    | 0      | 2     | 0     | 0     | 0 | 0                            | 0    | 0    | 2      |       |       |       |  |       |



PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Bicycles (on Roadway and Crosswalks)**

|                  | Elm Street |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Total |
|------------------|------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|
|                  | from North |       |       |        |       |       |       | from East                    |       |       |        |       |       |       | from South                   |       |       |        |       |       |       | from West                    |       |       |        |       |       |       |       |
|                  | Right      | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru  | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 6:15 PM          | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 1                            | 1     | 0     | 0      | 0     | 0     | 2     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 2     |
| Total Volume     | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 1                            | 4     | 0     | 0      | 0     | 0     | 5     | 3                            | 0     | 0     | 0      | 0     | 0     | 3     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 8     |
| % Approach Total | 0.0        | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 20.0                         | 80.0  | 0.0   | 0.0    | 0.0   | 0.0   | 100.0 | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0   | 0.0    | 0.0   |       |       |       |
| PHF              | 0.000      | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.250                        | 0.500 | 0.000 | 0.000  | 0.000 | 0.625 | 0.375 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.375 | 0.000 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 1.000 |       |
| Entering Leg     | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 1                            | 4     | 0     | 0      | 0     | 5     | 3     | 0                            | 0     | 0     | 0      | 0     | 3     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 8     |       |
| Exiting Leg      |            |       |       |        |       |       | 1     |                              |       |       |        |       | 3     |       |                              |       |       |        |       | 0     |       |                              |       |       |        |       | 4     | 8     |       |
| Total            |            |       |       |        |       |       | 1     |                              |       |       |        |       | 8     |       |                              |       |       |        |       | 3     |       |                              |       |       |        |       | 4     | 16    |       |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Pedestrians**

|          | Elm Street |      |      |        |       |       |       | Washington Street (Route 16) |      |      |        |       |       |       | Washington Street (Route 16) |      |      |        |       |       |       | Washington Street (Route 16) |      |      |        |       |       |       | Total |
|----------|------------|------|------|--------|-------|-------|-------|------------------------------|------|------|--------|-------|-------|-------|------------------------------|------|------|--------|-------|-------|-------|------------------------------|------|------|--------|-------|-------|-------|-------|
|          | from North |      |      |        |       |       |       | from East                    |      |      |        |       |       |       | from South                   |      |      |        |       |       |       | from West                    |      |      |        |       |       |       |       |
|          | Right      | Thru | Left | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru | Left | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru | Left | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru | Left | U-Turn | CW-NB | CW-SB | Total |       |
| 6:00 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 2     | 2     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 2     |
| 6:15 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 3     | 3     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 3     |       |
| 6:30 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 1      | 0     | 1     | 0     | 0                            | 0    | 0    | 1      | 0     | 1     | 2     |       |
| 6:45 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0                            | 0    | 0    | 1      | 5     | 6     | 0     | 0                            | 0    | 0    | 1      | 0     | 1     | 8     |       |
| 7:00 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 1      | 1     | 0     | 0     | 0                            | 0    | 0    | 1      | 1     | 1     | 2     |       |
| 7:15 AM  | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 4      | 0     | 4     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 2    | 0    | 2      | 0     | 2     | 7     |       |
| 7:30 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 2    | 0      | 2     | 0     | 0     | 0                            | 0    | 2    | 0      | 2     | 4     | 4     |       |
| 7:45 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 1      | 0     | 1     | 1     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 4      | 0     | 4     | 0     | 0                            | 0    | 2    | 1      | 3     | 0     | 0     | 0                            | 0    | 5    | 1      | 6     | 14    | 14    |       |
| 8:00 AM  | 0          | 0    | 0    | 0      | 2     | 0     | 2     | 0                            | 0    | 0    | 3      | 0     | 3     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 5     |       |
| 8:15 AM  | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 6      | 0     | 6     | 0     | 0                            | 0    | 0    | 3      | 3     | 0     | 0     | 0                            | 0    | 0    | 1      | 1     | 1     | 11    |       |
| 8:30 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 1      | 0     | 1     | 1     |       |
| 8:45 AM  | 0          | 0    | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| Total    | 0          | 0    | 0    | 0      | 3     | 1     | 4     | 0                            | 0    | 0    | 9      | 0     | 9     | 0     | 0                            | 0    | 0    | 3      | 3     | 0     | 0     | 0                            | 0    | 1    | 1      | 2     | 18    | 18    |       |
| 9:00 AM  | 0          | 0    | 0    | 0      | 2     | 1     | 3     | 0                            | 0    | 0    | 4      | 0     | 4     | 0     | 0                            | 0    | 2    | 1      | 3     | 0     | 0     | 0                            | 2    | 1    | 3      | 0     | 1     | 13    |       |
| 9:15 AM  | 0          | 0    | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0    | 2      | 0     | 2     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 0    | 1      | 0     | 1     | 4     |       |
| 9:30 AM  | 0          | 0    | 0    | 0      | 2     | 0     | 2     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 1    | 1      | 0     | 0     | 0     | 0                            | 0    | 1    | 1      | 0     | 1     | 4     |       |
| 9:45 AM  | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 2      | 0     | 2     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 2     |       |
| Total    | 0          | 0    | 0    | 0      | 5     | 1     | 6     | 0                            | 0    | 0    | 8      | 0     | 8     | 0     | 0                            | 0    | 2    | 2      | 4     | 0     | 0     | 0                            | 3    | 2    | 5      | 0     | 2     | 23    |       |
| 10:00 AM | 0          | 0    | 0    | 0      | 5     | 2     | 7     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 7     |       |
| 10:15 AM | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 10:30 AM | 0          | 0    | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 1    | 1      | 0     | 1     | 3     |       |
| 10:45 AM | 0          | 0    | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 2     |       |
| Total    | 0          | 0    | 0    | 0      | 7     | 4     | 11    | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 1    | 1      | 0     | 1     | 13    |       |
| 11:00 AM | 0          | 0    | 0    | 0      | 1     | 2     | 3     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 1    | 0      | 1     | 4     | 4     |       |
| 11:15 AM | 0          | 0    | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 2                            | 1    | 3    | 0      | 1     | 4     | 4     |       |
| 11:30 AM | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 1    | 0      | 1     | 2     | 2     |       |
| 11:45 AM | 0          | 0    | 0    | 0      | 2     | 4     | 6     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 6     |       |
| Total    | 0          | 0    | 0    | 0      | 4     | 7     | 11    | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 4                            | 1    | 5    | 0      | 1     | 5     | 16    |       |
| 12:00 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 12:15 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 1    | 0      | 1     | 0     | 0     | 0                            | 1    | 0    | 1      | 0     | 0     | 0     | 0                            | 1    | 1    | 2      | 0     | 1     | 4     |       |
| 12:30 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     |       |
| 12:45 PM | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 1      | 1     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| Total    | 0          | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 1    | 1      | 2     | 0     | 0     | 0                            | 1    | 0    | 1      | 0     | 0     | 0     | 1                            | 1    | 2    | 0      | 1     | 2     | 5     |       |
| 1:00 PM  | 0          | 0    | 0    | 0      | 7     | 3     | 10    | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 1    | 0      | 1     | 11    | 11    |       |
| 1:15 PM  | 0          | 0    | 0    | 0      | 1     | 2     | 3     | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 4     |       |
| 1:30 PM  | 0          | 0    | 0    | 0      | 0     | 3     | 3     | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 4     |       |
| 1:45 PM  | 0          | 0    | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 0    | 1    | 0      | 1     | 2     | 2     |       |
| Total    | 0          | 0    | 0    | 0      | 9     | 8     | 17    | 0                            | 0    | 0    | 0      | 2     | 2     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 1                            | 1    | 2    | 0      | 1     | 2     | 21    |       |
| 2:00 PM  | 0          | 0    | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 3     |       |
| 2:15 PM  | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 1      | 3     | 4     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 5     |       |
| 2:30 PM  | 0          | 0    | 0    | 0      | 3     | 0     | 3     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 3     |       |
| 2:45 PM  | 0          | 0    | 0    | 0      | 1     | 1     | 2     | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 3     |       |
| Total    | 0          | 0    | 0    | 0      | 5     | 3     | 8     | 0                            | 0    | 0    | 1      | 5     | 6     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 14    |       |
| 3:00 PM  | 0          | 0    | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0    | 0      | 2     | 2     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 3     |       |
| 3:15 PM  | 0          | 0    | 0    | 0      | 0     | 1     | 1     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 1     |       |
| 3:30 PM  | 0          | 0    | 0    | 0      | 3     | 2     | 5     | 0                            | 0    | 0    | 1      | 0     | 1     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 6     |       |
| 3:45 PM  | 0          | 0    | 0    | 0      | 3     | 0     | 3     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 1    | 0      | 1     | 4     | 4     |       |
| Total    | 0          | 0    | 0    | 0      | 7     | 3     | 10    | 0                            | 0    | 0    | 1      | 2     | 3     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 1    | 1    | 0      | 1     | 1     | 14    |       |
| 4:00 PM  | 0          | 0    | 0    | 0      | 0     | 4     | 4     | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0                            | 0    | 1    | 1      | 2     | 0     | 0     | 0                            | 2    | 1    | 3      | 0     | 10    | 10    |       |
| 4:15 PM  | 0          | 0    | 0    | 0      | 1     | 0     | 1     | 0                            | 0    | 0    | 0      | 2     | 2     | 0     | 0                            | 0    | 1    | 0      | 1     | 0     | 0     | 0                            | 1    | 0    | 1      | 0     | 5     | 5     |       |
| 4:30 PM  | 0          | 0    | 0    | 0      | 3     | 2     | 5     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 1    | 1      | 0     | 0     | 0     | 1                            | 1    | 2    | 0      | 1     | 8     | 8     |       |
| 4:45 PM  | 0          | 0    | 0    | 0      | 2     | 0     | 2     | 0                            | 0    | 0    | 5      | 1     | 6     | 0     | 0                            | 0    | 1    | 0      | 1     | 0     | 0     | 1                            | 1    | 2    | 0      | 1     | 11    | 11    |       |
| Total    | 0          | 0    | 0    | 0      | 6     | 6     | 12    | 0                            | 0    | 0    | 5      | 4     | 9     | 0     | 0                            | 0    | 3    | 2      | 5     | 0     | 0     | 0                            | 5    | 3    | 8      | 0     | 34    | 34    |       |
| 5:00 PM  | 0          | 0    | 0    | 0      | 1     | 3     | 4     | 0                            | 0    | 0    | 0      | 5     | 5     | 0     | 0                            | 0    | 1    | 0      | 1     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 10    | 10    |       |
| 5:15 PM  | 0          | 0    | 0    | 0      | 1     | 2     | 3     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0                            | 0    | 0    | 0      | 0     | 3     | 3     |       |

PDI File #: 218212 E  
 Location: N: Elm Street S: Washington Street (Route 16)  
 Location: E: Washington St (Route 16) W: Washington St (Route 16)  
 City, State: West Newton, MA  
 Client: BETA/J. Centracchio  
 Site Code: 5472-14  
 Count Date: Tuesday, October 19, 2021  
 Start Time: 6:00 AM  
 End Time: 8:00 PM  
 Class:



**Pedestrians**

|                          | Elm Street |      |      |        |       |       |       |    | Washington Street (Route 16) |      |      |        |       |       |       |   | Washington Street (Route 16) |      |      |        |       |       |       |   | Washington Street (Route 16) |      |      |        |       |       |       |  | Total |
|--------------------------|------------|------|------|--------|-------|-------|-------|----|------------------------------|------|------|--------|-------|-------|-------|---|------------------------------|------|------|--------|-------|-------|-------|---|------------------------------|------|------|--------|-------|-------|-------|--|-------|
|                          | from North |      |      |        |       |       |       |    | from East                    |      |      |        |       |       |       |   | from South                   |      |      |        |       |       |       |   | from West                    |      |      |        |       |       |       |  |       |
|                          | Right      | Thru | Left | U-Turn | CW-EB | CW-WB | Total |    | Right                        | Thru | Left | U-Turn | CW-SB | CW-NB | Total |   | Right                        | Thru | Left | U-Turn | CW-WB | CW-EB | Total |   | Right                        | Thru | Left | U-Turn | CW-NB | CW-SB | Total |  |       |
| 5:30 PM                  | 0          | 0    | 0    | 0      | 2     | 2     | 4     | 0  | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 5     |       |  |       |
| 5:45 PM                  | 0          | 0    | 0    | 0      | 4     | 2     | 6     | 0  | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 0    | 0    | 0      | 6     |       |       |  |       |
| <b>Total</b>             | 0          | 0    | 0    | 0      | 8     | 9     | 17    | 0  | 0                            | 0    | 0    | 0      | 6     | 6     | 0     | 0 | 0                            | 0    | 1    | 0      | 1     | 0     | 0     | 0 | 0                            | 0    | 0    | 0      | 24    |       |       |  |       |
| 6:00 PM                  | 0          | 0    | 0    | 0      | 0     | 3     | 3     | 0  | 0                            | 0    | 0    | 1      | 8     | 9     | 0     | 0 | 0                            | 0    | 1    | 0      | 1     | 0     | 0     | 0 | 0                            | 3    | 0    | 3      | 16    |       |       |  |       |
| 6:15 PM                  | 0          | 0    | 0    | 0      | 1     | 3     | 4     | 0  | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 2    | 0    | 2      | 7     |       |       |  |       |
| 6:30 PM                  | 0          | 0    | 0    | 0      | 0     | 3     | 3     | 0  | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 1    | 1    | 5      |       |       |       |  |       |
| 6:45 PM                  | 0          | 0    | 0    | 0      | 3     | 0     | 3     | 0  | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 1    | 1    | 2      | 0     | 0     | 0     | 0 | 1                            | 1    | 2    | 7      |       |       |       |  |       |
| <b>Total</b>             | 0          | 0    | 0    | 0      | 4     | 9     | 13    | 0  | 0                            | 0    | 0    | 1      | 10    | 11    | 0     | 0 | 0                            | 0    | 2    | 1      | 3     | 0     | 0     | 0 | 0                            | 6    | 2    | 8      | 35    |       |       |  |       |
| 7:00 PM                  | 0          | 0    | 0    | 0      | 1     | 5     | 6     | 0  | 0                            | 0    | 0    | 0      | 4     | 4     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 1    | 1    | 11     |       |       |       |  |       |
| 7:15 PM                  | 0          | 0    | 0    | 0      | 2     | 0     | 2     | 0  | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 0    | 4    | 4      | 0     | 0     | 0     | 0 | 0                            | 1    | 1    | 7      |       |       |       |  |       |
| 7:30 PM                  | 0          | 0    | 0    | 0      | 1     | 0     | 1     | 0  | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 0    | 0    | 1      |       |       |       |  |       |
| 7:45 PM                  | 0          | 0    | 0    | 0      | 2     | 0     | 2     | 0  | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 1                            | 1    | 2    | 4      |       |       |       |  |       |
| <b>Total</b>             | 0          | 0    | 0    | 0      | 6     | 5     | 11    | 0  | 0                            | 0    | 0    | 0      | 4     | 4     | 0     | 0 | 0                            | 0    | 4    | 4      | 0     | 0     | 0     | 0 | 1                            | 3    | 4    | 23     |       |       |       |  |       |
| <b>Grand Total</b>       | 0          | 0    | 0    | 0      | 64    | 57    | 121   | 0  | 0                            | 0    | 0    | 30     | 36    | 66    | 0     | 0 | 0                            | 0    | 12   | 18     | 30    | 0     | 0     | 0 | 0                            | 28   | 17   | 45     | 262   |       |       |  |       |
| <b>Approach %</b>        | 0          | 0    | 0    | 0      | 52.9  | 47.1  |       | 0  | 0                            | 0    | 0    | 45.5   | 54.5  |       | 0     | 0 | 0                            | 0    | 40   | 60     |       | 0     | 0     | 0 | 0                            | 62.2 | 37.8 |        |       |       |       |  |       |
| <b>Total %</b>           | 0          | 0    | 0    | 0      | 24.4  | 21.8  | 46.2  | 0  | 0                            | 0    | 0    | 11.5   | 13.7  | 25.2  | 0     | 0 | 0                            | 0    | 4.58 | 6.87   | 11.5  | 0     | 0     | 0 | 0                            | 10.7 | 6.49 | 17.2   |       |       |       |  |       |
| <b>Exiting Leg Total</b> | 121        |      |      |        |       |       |       | 66 |                              |      |      |        |       |       | 30    |   |                              |      |      |        |       | 45    |       |   |                              |      |      |        | 262   |       |       |  |       |

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

|                         | Elm Street |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |  | Total |
|-------------------------|------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|--|-------|
|                         | from North |       |       |        |       |       |       |       | from East                    |       |       |        |       |       |       |       | from South                   |       |       |        |       |       |       |       | from West                    |       |       |        |       |       |       |  |       |
|                         | Right      | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-WB | CW-EB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-NB | CW-SB | Total |  |       |
| 8:15 AM                 | 0          | 0     | 0     | 0      | 0     | 1     | 1     | 0     | 0                            | 0     | 0     | 6      | 0     | 6     | 0     | 0     | 0                            | 0     | 0     | 3      | 3     | 0     | 0     | 0     | 0                            | 0     | 1     | 1      | 11    |       |       |  |       |
| 8:30 AM                 | 0          | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 1                            | 0     | 1     | 1      |       |       |       |  |       |
| 8:45 AM                 | 0          | 0     | 0     | 0      | 1     | 0     | 1     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 1      |       |       |       |  |       |
| 9:00 AM                 | 0          | 0     | 0     | 0      | 2     | 1     | 3     | 0     | 0                            | 0     | 0     | 4      | 0     | 4     | 0     | 0     | 0                            | 2     | 1     | 3      | 0     | 0     | 0     | 0     | 2                            | 1     | 3     | 13     |       |       |       |  |       |
| <b>Total Volume</b>     | 0          | 0     | 0     | 0      | 3     | 2     | 5     | 0     | 0                            | 0     | 0     | 10     | 0     | 10    | 0     | 0     | 0                            | 2     | 4     | 6      | 0     | 0     | 0     | 0     | 3                            | 2     | 5     | 26     |       |       |       |  |       |
| <b>% Approach Total</b> | 0.0        | 0.0   | 0.0   | 0.0    | 60.0  | 40.0  |       | 0.0   | 0.0                          | 0.0   | 0.0   | 100.0  | 0.0   |       | 0.0   | 0.0   | 0.0                          | 0.0   | 33.3  | 66.7   |       | 0.0   | 0.0   | 0.0   | 0.0                          | 60.0  | 40.0  |        |       |       |       |  |       |
| <b>PHF</b>              | 0.000      | 0.000 | 0.000 | 0.000  | 0.375 | 0.500 | 0.417 | 0.000 | 0.000                        | 0.000 | 0.000 | 0.417  | 0.000 | 0.417 | 0.000 | 0.000 | 0.000                        | 0.250 | 0.333 | 0.500  | 0.000 | 0.000 | 0.000 | 0.000 | 0.375                        | 0.500 | 0.417 | 0.500  |       |       |       |  |       |
| <b>Entering Leg</b>     | 0          | 0     | 0     | 0      | 3     | 2     | 5     | 0     | 0                            | 0     | 0     | 10     | 0     | 10    | 0     | 0     | 0                            | 2     | 4     | 6      | 0     | 0     | 0     | 0     | 3                            | 2     | 5     | 26     |       |       |       |  |       |
| <b>Exiting Leg</b>      | 5          |       |       |        |       |       |       | 10    |                              |       |       |        |       |       | 6     |       |                              |       |       |        |       | 5     |       |       |                              |       |       |        | 26    |       |       |  |       |
| <b>Total</b>            | 10         |       |       |        |       |       |       | 20    |                              |       |       |        |       |       | 12    |       |                              |       |       |        |       | 10    |       |       |                              |       |       |        | 52    |       |       |  |       |

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

|                         | Elm Street |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       |  | Total |
|-------------------------|------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|--|-------|
|                         | from North |       |       |        |       |       |       |       | from East                    |       |       |        |       |       |       |       | from South                   |       |       |        |       |       |       |       | from West                    |       |       |        |       |       |       |  |       |
|                         | Right      | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-WB | CW-EB | Total |       | Right                        | Thru  | Left  | U-Turn | CW-NB | CW-SB | Total |  |       |
| 1:00 PM                 | 0          | 0     | 0     | 0      | 7     | 3     | 10    | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 1                            | 1     | 1     | 11     |       |       |       |  |       |
| 1:15 PM                 | 0          | 0     | 0     | 0      | 1     | 2     | 3     | 0     | 0                            | 0     | 0     | 0      | 1     | 1     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 4      |       |       |       |  |       |
| 1:30 PM                 | 0          | 0     | 0     | 0      | 0     | 3     | 3     | 0     | 0                            | 0     | 0     | 0      | 1     | 1     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 4      |       |       |       |  |       |
| 1:45 PM                 | 0          | 0     | 0     | 0      | 1     | 0     | 1     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 1                            | 0     | 1     | 2      |       |       |       |  |       |
| <b>Total Volume</b>     | 0          | 0     | 0     | 0      | 9     | 8     | 17    | 0     | 0                            | 0     | 0     | 0      | 2     | 2     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 1                            | 1     | 2     | 21     |       |       |       |  |       |
| <b>% Approach Total</b> | 0.0        | 0.0   | 0.0   | 0.0    | 52.9  | 47.1  |       | 0.0   | 0.0                          | 0.0   | 0.0   | 0.0    | 100.0 |       | 0.0   | 0.0   | 0.0                          | 0.0   | 0.0   | 0.0    |       | 0.0   | 0.0   | 0.0   | 0.0                          | 50.0  | 50.0  |        |       |       |       |  |       |
| <b>PHF</b>              | 0.000      | 0.000 | 0.000 | 0.000  | 0.321 | 0.667 | 0.425 | 0.000 | 0.000                        | 0.000 | 0.000 | 0.500  | 0.500 | 0.000 | 0.000 | 0.000 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.000 | 0.000 | 0.000 | 0.250 | 0.250                        | 0.500 | 0.477 |        |       |       |       |  |       |
| <b>Entering Leg</b>     | 0          | 0     | 0     | 0      | 9     | 8     | 17    | 0     | 0                            | 0     | 0     | 0      | 2     | 2     | 0     | 0     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0     | 1                            | 1     | 2     | 21     |       |       |       |  |       |
| <b>Exiting Leg</b>      | 17         |       |       |        |       |       |       | 2     |                              |       |       |        |       |       | 0     |       |                              |       |       |        |       | 2     |       |       |                              |       |       |        | 21    |       |       |  |       |
| <b>Total</b>            | 34         |       |       |        |       |       |       | 4     |                              |       |       |        |       |       | 0     |       |                              |       |       |        |       | 4     |       |       |                              |       |       |        | 42    |       |       |  |       |

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

|         | Elm Street |      |      |        |       |       |       |   | Washington Street (Route 16) |      |      |        |       |       |       |   | Washington Street (Route 16) |      |      |        |       |       |       |   | Washington Street (Route 16) |      |      |        |       |       |       |  | Total |
|---------|------------|------|------|--------|-------|-------|-------|---|------------------------------|------|------|--------|-------|-------|-------|---|------------------------------|------|------|--------|-------|-------|-------|---|------------------------------|------|------|--------|-------|-------|-------|--|-------|
|         | from North |      |      |        |       |       |       |   | from East                    |      |      |        |       |       |       |   | from South                   |      |      |        |       |       |       |   | from West                    |      |      |        |       |       |       |  |       |
|         | Right      | Thru | Left | U-Turn | CW-EB | CW-WB | Total |   | Right                        | Thru | Left | U-Turn | CW-SB | CW-NB | Total |   | Right                        | Thru | Left | U-Turn | CW-WB | CW-EB | Total |   | Right                        | Thru | Left | U-Turn | CW-NB | CW-SB | Total |  |       |
| 6:00 PM | 0          | 0    | 0    | 0      | 0     | 3     | 3     | 0 | 0                            | 0    | 0    | 1      | 8     | 9     | 0     | 0 | 0                            | 0    | 1    | 0      | 1     | 0     | 0     | 0 | 3                            | 0    | 3    | 16     |       |       |       |  |       |
| 6:15 PM | 0          | 0    | 0    | 0      | 1     | 3     | 4     | 0 | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 2                            | 0    | 2    | 7      |       |       |       |  |       |
| 6:30 PM | 0          | 0    | 0    | 0      | 0     | 3     | 3     | 0 | 0                            | 0    | 0    | 0      | 1     | 1     | 0     | 0 | 0                            | 0    | 0    | 0      | 0     | 0     | 0     | 0 | 1                            | 1    | 1    | 5      |       |       |       |  |       |

PDI File #: **218212 E**  
 Location: **N: Elm Street S: Washington Street (Route 16)**  
 Location: **E: Washington St (Route 16) W: Washington St (Route 16)**  
 City, State: **West Newton, MA**  
 Client: **BETA/J. Centracchio**  
 Site Code: **5472-14**  
 Count Date: **Tuesday, October 19, 2021**  
 Start Time: **6:00 AM**  
 End Time: **8:00 PM**  
 Class:



**Pedestrians**

|                  | Elm Street |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Washington Street (Route 16) |       |       |        |       |       |       | Total |
|------------------|------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|------------------------------|-------|-------|--------|-------|-------|-------|-------|
|                  | from North |       |       |        |       |       |       | from East                    |       |       |        |       |       |       | from South                   |       |       |        |       |       |       | from West                    |       |       |        |       |       |       |       |
|                  | Right      | Thru  | Left  | U-Turn | CW-EB | CW-WB | Total | Right                        | Thru  | Left  | U-Turn | CW-SB | CW-NB | Total | Right                        | Thru  | Left  | U-Turn | CW-WB | CW-EB | Total | Right                        | Thru  | Left  | U-Turn | CW-NB | CW-SB | Total |       |
| 6:45 PM          | 0          | 0     | 0     | 0      | 3     | 0     | 3     | 0                            | 0     | 0     | 0      | 0     | 0     | 0     | 0                            | 0     | 0     | 0      | 1     | 1     | 2     | 0                            | 0     | 0     | 0      | 1     | 1     | 2     | 7     |
| Total Volume     | 0          | 0     | 0     | 0      | 4     | 9     | 13    | 0                            | 0     | 0     | 0      | 1     | 10    | 11    | 0                            | 0     | 0     | 0      | 2     | 1     | 3     | 0                            | 0     | 0     | 0      | 6     | 2     | 8     | 35    |
| % Approach Total | 0.0        | 0.0   | 0.0   | 0.0    | 30.8  | 69.2  |       | 0.0                          | 0.0   | 0.0   | 0.0    | 9.1   | 90.9  |       | 0.0                          | 0.0   | 0.0   | 0.0    | 66.7  | 33.3  |       | 0.0                          | 0.0   | 0.0   | 0.0    | 75.0  | 25.0  |       |       |
| PHF              | 0.000      | 0.000 | 0.000 | 0.000  | 0.333 | 0.750 | 0.813 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.250 | 0.313 | 0.306 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.500 | 0.250 | 0.375 | 0.000                        | 0.000 | 0.000 | 0.000  | 0.500 | 0.500 | 0.667 | 0.547 |
| Entering Leg     | 0          | 0     | 0     | 0      | 4     | 9     | 13    | 0                            | 0     | 0     | 0      | 1     | 10    | 11    | 0                            | 0     | 0     | 0      | 2     | 1     | 3     | 0                            | 0     | 0     | 0      | 6     | 2     | 8     | 35    |
| Exiting Leg      |            |       |       |        |       |       | 13    |                              |       |       |        |       | 11    |       |                              |       |       |        |       |       | 3     |                              |       |       |        |       |       | 8     | 35    |
| Total            |            |       |       |        |       |       | 26    |                              |       |       |        |       | 22    |       |                              |       |       |        |       |       | 6     |                              |       |       |        |       |       | 16    | 70    |

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## Count Adjustments

### COUNT ADJUSTMENT CALCULATIONS

Project Name: West Newton - Santander  
 Project No: 15636.00  
 Location: Newton, MA  
 Date: March 2022

*Chestnut Street closed during portion of February 2022 counts with traffic diverted to Davis Street. Volumes are not accurate, Existing Conditions based on Oct 2021 counts instead.*

Average Comparison to Feb 2022  
 0.99 0.99  
 101% 101%  
 (does not include Highland or Chestnut intersections)

Average Comparison to Oct 2021  
 1.23 1.11  
 82% 90%

| INTERSECTION  | MOVEMENT | APRIL 2019 EXISTING VOLUMES - RAW |         | OCTOBER 2021 EXISTING VOLUMES - RAW |         | FEBRUARY 2022 EXISTING VOLUMES - RAW |         | OCT 2021 TO FEB 2022 COMPARISON |      | OCT 2021 TO FEB 2022 COMPARISON |         | APR 2019 TO OCT 2021 COMPARISON |      | APR 2019 TO OCT 2021 COMPARISON |         | APR 2019 TO OCT 2021 COMPARISON (BY APPROACH) |      |  |
|---|----------|-----------------------------------|---------|-------------------------------------|---------|--------------------------------------|---------|---------------------------------|------|---------------------------------|---------|---------------------------------|------|---------------------------------|---------|---|------|--|
|   |          | 7:30 AM                           | 5:00 PM | 7:45 AM                             | 5:00 PM | 8:00 AM                              | 5:00 PM | AM                              | PM   | AM                              | PM      | AM                              | PM   | AM                              | PM      | AM  | PM   |  |
| 1. WASHINGTON STREET AT ELM STREET                        |          |                                   |         |                                     |         |                                      |         |                                 |      |                                 |         |                                 |      |                                 |         |   |      |  |
| Washington Street   | WB T     | 602                               | 594     | 434                                 | 555     | 407                                  | 526     | -27                             | -29  | 94%                             | 95%     | -168                            | -39  | 72%                             | 93%     | 70%   | 89%  |  |
|   | WB R     | 50                                | 76      | 24                                  | 44      | 54                                   | 60      | 30                              | 16   | 225%                            | 136%    | -26                             | -32  | 48%                             | 58%     |   |      |  |
| Washington Street   | NB L     | 89                                | 44      | 19                                  | 37      | 29                                   | 33      | 10                              | -4   | 153%                            | 89%     | -70                             | -7   | 21%                             | 84%     | 83%   | 76%  |  |
|   | NB T     | 123                               | 259     | 112                                 | 137     | 117                                  | 139     | 5                               | 2    | 104%                            | 101%    | -11                             | -122 | 91%                             | 53%     |   |      |  |
|   | NB R     | 641                               | 774     | 574                                 | 641     | 573                                  | 672     | -1                              | 31   | 100%                            | 105%    | -67                             | -133 | 90%                             | 83%     |   |      |  |
| Elm Street  | SB R     | 467                               | 260     | 252                                 | 210     | 266                                  | 227     | 14                              | 17   | 106%                            | 108%    | -215                            | -50  | 54%                             | 81%     | 54%   | 81%  |  |
|   |          | 1972                              | 2007    | 1415                                | 1624    | 1446                                 | 1657    | 31                              | 33   | 102%                            | 102%    | -557                            | -383 | 72%                             | 81%     |   |      |  |
| 2. WASHINGTON STREET AT CHERRY STREET                     |          |                                   |         |                                     |         |                                      |         |                                 |      |                                 |         |                                 |      |                                 |         |   |      |  |
| Washington Street   | EB L     | 94                                | 136     | 80                                  | 151     | 97                                   | 148     | 17                              | -3   | #DIV/0!                         | #DIV/0! | -14                             | 15   | 85%                             | 111%    | 90%   | 83%  |  |
|   | EB T     | 547                               | 638     | 500                                 | 488     | 470                                  | 520     | -30                             | 32   | 94%                             | 107%    | -47                             | -150 | 91%                             | 76%     |   |      |  |
| Washington Street   | WB T     | 574                               | 593     | 400                                 | 517     | 415                                  | 492     | 15                              | -25  | 104%                            | 95%     | -174                            | -76  | 70%                             | 87%     | 70%   | 89%  |  |
|   | WB R     | 182                               | 224     | 127                                 | 209     | 179                                  | 233     | 52                              | 24   | 141%                            | 111%    | -55                             | -15  | 70%                             | 93%     |   |      |  |
| Cherry Street   | SB L     | 351                               | 229     | 443                                 | 315     | 386                                  | 281     | -57                             | -34  | 87%                             | 89%     | 92                              | 86   | 126%                            | 138%    | 117%  | 133% |  |
|   | SB R     | 78                                | 77      | 58                                  | 91      | 61                                   | 101     | 3                               | 10   | 105%                            | 111%    | -20                             | 14   | 74%                             | 118%    |   |      |  |
|   |          | 1826                              | 1897    | 1608                                | 1771    | 1608                                 | 1775    | 4                               |      | 100%                            | 100%    | -218                            | -126 | 88%                             | 93%     |   |      |  |
| 3. WASHINGTON STREET AT HIGHLAND STREET                   |          |                                   |         |                                     |         |                                      |         |                                 |      |                                 |         |                                 |      |                                 |         |   |      |  |
| Washington Street   | EB T     | 657                               | 675     | 698                                 | 615     | 630                                  | 641     | -68                             | 26   | 90%                             | 104%    | 41                              | -60  | 106%                            | 91%     | 105%  | 92%  |  |
|   | EB R     | 241                               | 192     | 242                                 | 185     | 225                                  | 149     | -17                             | -36  | 93%                             | 81%     | 1                               | -7   | 100%                            | 96%     |   |      |  |
| Washington Street   | WB L     | 136                               | 104     | 99                                  | 94      | 93                                   | 66      | -6                              | -28  | 94%                             | 70%     | -37                             | -10  | 73%                             | 90%     | 70%   | 91%  |  |
|   | WB T     | 605                               | 572     | 419                                 | 522     | 413                                  | 511     | -6                              | -11  | 99%                             | 98%     | -186                            | -50  | 69%                             | 91%     |   |      |  |
| Highland Street   | NB L     | 151                               | 245     | 120                                 | 216     | 177                                  | 225     | 57                              | 9    | 148%                            | 104%    | -31                             | -29  | 79%                             | 88%     | 66%   | 93%  |  |
|   | NB R     | 72                                | 26      | 27                                  | 37      | 163                                  | 50      | 136                             | 13   | 604%                            | 135%    | -45                             | 11   | 38%                             | 142%    |   |      |  |
|   |          | 1862                              | 1814    | 1605                                | 1669    | 1701                                 | 1642    | 96                              | -27  | 106%                            | 98%     | -257                            | -145 | 86%                             | 92%     |   |      |  |
| 4. WASHINGTON STREET AT WALTHAM STREET / WATERTOWN STREET |          |                                   |         |                                     |         |                                      |         |                                 |      |                                 |         |                                 |      |                                 |         |   |      |  |
| Washington Street   | EB L     |                                   |         | 1                                   | 3       | 4                                    | 3       | 3                               |      | #DIV/0!                         | #DIV/0! | 1                               | 3    | #DIV/0!                         | #DIV/0! | 96%   | 93%  |  |
|   | EB BL    | 312                               | 313     | 253                                 | 286     | 303                                  | 338     | 50                              | 52   | 400%                            | 100%    | -59                             | -27  | 81%                             | 91%     |   |      |  |
|   | EB T     | 417                               | 388     | 449                                 | 362     | 473                                  | 362     | 24                              |      | 105%                            | 100%    | 32                              | -26  | 108%                            | 93%     |   |      |  |
| Washington Street   | WB T     | 270                               | 202     | 170                                 | 208     | 167                                  | 254     | -3                              | 46   | 98%                             | 122%    | -100                            | 6    | 63%                             | 103%    | 65%   | 99%  |  |
|   | WB R     | 162                               | 163     | 124                                 | 174     | 79                                   | 130     | -45                             | -44  | 64%                             | 75%     | -38                             | 11   | 77%                             | 107%    |   |      |  |
|   | WB HR    | 20                                | 26      | 2                                   | 4       |                                      | 1       | -2                              | -3   |                                 | 25%     | -18                             | -22  | 10%                             | 15%     |   |      |  |
| Waltham Street  | SB R     | 209                               | 185     | 162                                 | 135     | 151                                  | 118     | -11                             | -17  | 93%                             | 87%     | -47                             | -50  | 78%                             | 73%     | 78%   | 73%  |  |
| Watertown Street  | SWB R    | 261                               | 289     | 174                                 | 242     | 190                                  | 206     | 16                              | -36  | 109%                            | 85%     | -87                             | -47  | 67%                             | 84%     | 67%   | 81%  |  |
|   | SWB HR   | 46                                | 56      | 31                                  | 36      | 28                                   | 38      | -3                              | 2    | 90%                             | 106%    | -15                             | -20  | 67%                             | 64%     |   |      |  |
|   |          | 1697                              | 1622    | 1366                                | 1450    | 1395                                 | 1450    | 29                              |      | 102%                            | 100%    | -331                            | -172 | 80%                             | 89%     |   |      |  |
| 5. WASHINGTON STREET AT CHESTNUT STREET                   |          |                                   |         |                                     |         |                                      |         |                                 |      |                                 |         |                                 |      |                                 |         |   |      |  |
| Washington Street   | EB T     | 367                               | 356     | 421                                 | 330     | 433                                  | 338     | 12                              | 8    | 103%                            | 102%    | 54                              | -26  | 115%                            | 93%     | 112%  | 93%  |  |
|   | EB R     | 50                                | 32      | 45                                  | 29      | 49                                   | 30      | 4                               | 1    | 109%                            | 103%    | -5                              | -3   | 90%                             | 91%     |   |      |  |
| Washington Street   | WB L     | 166                               | 185     | 163                                 | 211     | 154                                  | 149     | -9                              | -62  | 94%                             | 71%     | -3                              | 26   | 98%                             | 114%    | 85%   | 110% |  |
|   | WB T     | 309                               | 296     | 242                                 | 319     | 238                                  | 382     | -4                              | 63   | 98%                             | 120%    | -67                             | 23   | 78%                             | 108%    |   |      |  |
| Chestnut Street   | NB L     | 143                               | 95      | 65                                  | 91      | 11                                   | 9       | -54                             | -82  | 17%                             | 10%     | -78                             | -4   | 45%                             | 96%     | 46%   | 76%  |  |
|   | NB R     | 256                               | 235     | 117                                 | 161     | 155                                  | 78      | 38                              | -83  | 132%                            | 48%     | -139                            | -74  | 46%                             | 69%     |   |      |  |
|   |          | 1291                              | 1199    | 1053                                | 1141    | 1040                                 | 986     | -13                             | -155 | 99%                             | 86%     | -238                            | -58  | 82%                             | 95%     |   |      |  |

# EXISTING VOLUMES

Project Name: West Newton - Santander  
 Project No: 15636.00  
 Location: Newton, MA  
 Date: March 2022

*Chestnut Street closed during portion of February 2022 counts with traffic diverted to Davis Street. Volumes are not accurate, Existing Conditions based on Oct 2021 counts instead.*

based on Oct 2021 TMCs  
 based on Feb 2022 ATR  
 matches Feb 2022 TMCs

xx = balanced

| INTERSECTION   | MOVEMENT | APRIL 2019 EXISTING VOLUMES - RAW |         | OCTOBER 2021 EXISTING VOLUMES - RAW |         | FEBRUARY 2022 EXISTING VOLUMES - RAW |         | OCT 2021 VOLUMES - ADJUSTED |     | EXISTING VOLUMES - BALANCED |     |
|--|----------|-----------------------------------|---------|-------------------------------------|---------|--------------------------------------|---------|-----------------------------|-----|-----------------------------|-----|
|  |          | 7:30 AM                           | 5:00 PM | 7:45 AM                             | 5:00 PM | 8:00 AM                              | 5:00 PM | AM                          | PM  | AM                          | PM  |
| <b>1. WASHINGTON STREET AT ELM STREET</b>                        |          |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Washington Street  | WB T     | 602                               | 594     | 434                                 | 555     | 407                                  | 526     | 532                         | 616 | 540                         | 635 |
|  | WB R     | 50                                | 76      | 24                                  | 44      | 54                                   | 60      | 29                          | 49  | 30                          | 50  |
| Washington Street  | NB L     | 89                                | 44      | 19                                  | 37      | 29                                   | 33      | 23                          | 41  | 25                          | 40  |
|  | NB T     | 123                               | 259     | 112                                 | 137     | 117                                  | 139     | 137                         | 152 | 135                         | 150 |
|  | NB R     | 641                               | 774     | 574                                 | 641     | 573                                  | 672     | 703                         | 711 | 715                         | 710 |
| Elm Street   | SB R     | 467                               | 260     | 252                                 | 210     | 266                                  | 227     | 309                         | 233 | 310                         | 235 |
|  |          | 1972                              | 2007    | 1415                                | 1624    | 1446                                 | 1657    |                             |     |                             |     |
| <b>2. WASHINGTON STREET AT CHERRY STREET</b>                     |          |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Washington Street  | EB L     | 94                                | 136     | 80                                  | 151     | 97                                   | 148     | 98                          | 167 | 100                         | 170 |
|  | EB T     | 547                               | 638     | 500                                 | 488     | 470                                  | 520     | 613                         | 541 | 615                         | 540 |
| Washington Street  | WB T     | 574                               | 593     | 400                                 | 517     | 415                                  | 492     | 490                         | 573 | 500                         | 585 |
|  | WB R     | 182                               | 224     | 127                                 | 209     | 179                                  | 233     | 156                         | 232 | 160                         | 235 |
| Cherry Street  | SB L     | 351                               | 229     | 443                                 | 315     | 386                                  | 281     | 543                         | 349 | 545                         | 350 |
|  | SB R     | 78                                | 77      | 58                                  | 91      | 61                                   | 101     | 71                          | 101 | 70                          | 100 |
|  |          | 1826                              | 1897    | 1608                                | 1771    | 1608                                 | 1775    |                             |     |                             |     |
| <b>3. WASHINGTON STREET AT HIGHLAND STREET</b>                   |          |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Washington Street  | EB T     | 657                               | 675     | 698                                 | 615     | 630                                  | 641     | 855                         | 682 | 860                         | 685 |
|  | EB R     | 241                               | 192     | 242                                 | 185     | 225                                  | 149     | 297                         | 205 | 300                         | 205 |
| Washington Street  | WB L     | 136                               | 104     | 99                                  | 94      | 93                                   | 66      | 121                         | 104 | 120                         | 105 |
|  | WB T     | 605                               | 572     | 419                                 | 522     | 413                                  | 511     | 513                         | 579 | 515                         | 580 |
| Highland Street  | NB L     | 151                               | 245     | 120                                 | 216     | 177                                  | 225     | 147                         | 240 | 145                         | 240 |
|  | NB R     | 72                                | 26      | 27                                  | 37      | 163                                  | 50      | 33                          | 41  | 35                          | 40  |
|  |          | 1862                              | 1814    | 1605                                | 1669    | 1701                                 | 1642    |                             |     |                             |     |
| <b>4. WASHINGTON STREET AT WALTHAM STREET / WATERTOWN STREET</b> |          |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Washington Street  | EB L     |                                   |         | 1                                   | 3       | 4                                    | 3       | 1                           | 3   | 1                           | 5   |
|  | EB BL    | 312                               | 313     | 253                                 | 286     | 303                                  | 338     | 310                         | 317 | 325                         | 320 |
|  | EB T     | 417                               | 388     | 449                                 | 362     | 473                                  | 362     | 550                         | 401 | 570                         | 405 |
| Washington Street  | WB T     | 270                               | 202     | 170                                 | 208     | 167                                  | 254     | 208                         | 231 | 220                         | 245 |
|  | WB R     | 162                               | 163     | 124                                 | 174     | 79                                   | 130     | 152                         | 193 | 155                         | 205 |
|  | WB HR    | 20                                | 26      | 2                                   | 4       |                                      | 1       | 2                           | 4   | 2                           | 5   |
| Waltham Street   | SB R     | 209                               | 185     | 162                                 | 135     | 151                                  | 118     | 198                         | 150 | 200                         | 155 |
| Watertown Street   | SWB R    | 261                               | 289     | 174                                 | 242     | 190                                  | 206     | 213                         | 268 | 215                         | 285 |
|  | SWB HR   | 46                                | 56      | 31                                  | 36      | 28                                   | 38      | 38                          | 40  | 40                          | 40  |
|  |          | 1697                              | 1622    | 1366                                | 1450    | 1395                                 | 1450    |                             |     |                             |     |
| <b>5. WASHINGTON STREET AT CHESTNUT STREET</b>                   |          |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Washington Street  | EB T     | 367                               | 356     | 421                                 | 330     | 433                                  | 338     | 516                         | 366 | 515                         | 375 |
|  | EB R     | 50                                | 32      | 45                                  | 29      | 49                                   | 30      | 55                          | 32  | 55                          | 30  |
| Washington Street  | WB L     | 166                               | 185     | 163                                 | 211     | 154                                  | 149     | 200                         | 234 | 200                         | 235 |
|  | WB T     | 309                               | 296     | 242                                 | 319     | 238                                  | 382     | 297                         | 354 | 295                         | 355 |
| Chestnut Street  | NB L     | 143                               | 95      | 65                                  | 91      | 11                                   | 9       | 80                          | 101 | 80                          | 100 |
|  | NB R     | 256                               | 235     | 117                                 | 161     | 155                                  | 78      | 143                         | 179 | 145                         | 180 |
|  |          | 1291                              | 1199    | 1053                                | 1141    | 1040                                 | 986     |                             |     |                             |     |

# EXISTING VOLUMES

Project Name: West Newton - Santander  
 Project No: 15636.00  
 Location: Newton, MA  
 Date: March 2022

*Chestnut Street closed during portion of February 2022 counts with traffic diverted to Davis Street. Volumes are not accurate, Existing Conditions based on Oct 2021 counts instead.*

based on Oct 2021 TMCs  
 based on Feb 2022 ATR  
 matches Feb 2022 TMCs

xx = balanced

| INTERSECTION                                | MOVEMENT | APRIL 2019 EXISTING VOLUMES - RAW |         | OCTOBER 2021 EXISTING VOLUMES - RAW |         | FEBRUARY 2022 EXISTING VOLUMES - RAW |         | OCT 2021 VOLUMES - ADJUSTED |     | EXISTING VOLUMES - BALANCED |     |
|---|----------|-----------------------------------|---------|-------------------------------------|---------|--------------------------------------|---------|-----------------------------|-----|-----------------------------|-----|
|   |          | 7:30 AM                           | 5:00 PM | 7:45 AM                             | 5:00 PM | 8:00 AM                              | 5:00 PM | AM                          | PM  | AM                          | PM  |
| 6. HIGHLAND STREET AT SITE DRIVEWAY         |          |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Site Driveway                               | WB L     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
|   | WB R     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Highland Street                             | NB T     |                                   |         |                                     |         | 340                                  | 275     | 180                         | 281 | 180                         | 280 |
|   | NB R     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Highland Street                             | SB L     |                                   |         |                                     |         | 318                                  | 215     | 418                         | 309 | 420                         | 310 |
|   | SB T     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| 7. HIGHLAND STREET AT CHURCH NORTH DRIVEWAY |          |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Church North Driveway                       | EB L     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
|   | EB R     |                                   |         |                                     |         |                                      | 1       |                             | 1   |                             | 1   |
| Highland Street                             | NB L     |                                   |         |                                     |         | 5                                    | 4       | 5                           | 4   | 5                           | 5   |
|   | NB T     |                                   |         |                                     |         | 338                                  | 268     | 180                         | 281 | 180                         | 280 |
| Highland Street                             | SB T     |                                   |         |                                     |         | 298                                  | 210     | 401                         | 302 | 405                         | 305 |
|   | SB R     |                                   |         |                                     |         | 17                                   | 7       | 17                          | 7   | 15                          | 5   |
| 8. HIGHLAND STREET AT DAVIS STREET          |          |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Church South Driveway                       | EB L     |                                   |         |                                     |         | 16                                   | 8       | 16                          | 8   | 15                          | 10  |
|   | EB T     |                                   |         |                                     |         | 3                                    | 1       | 3                           | 1   | 5                           | 1   |
|   | EB R     |                                   |         |                                     |         | 3                                    | 4       | 3                           | 4   | 5                           | 5   |
| Davis Street                                | WB L     |                                   |         |                                     |         | 152                                  | 129     |                             |     |                             |     |
|   | WB T     |                                   |         |                                     |         |                                      | 1       |                             | 1   |                             | 1   |
|   | WB R     |                                   |         |                                     |         | 22                                   | 49      | 45                          | 62  | 45                          | 60  |
| Highland Street                             | NB L     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
|   | NB T     |                                   |         |                                     |         | 305                                  | 215     | 124                         | 214 | 125                         | 215 |
|   | NB R     |                                   |         |                                     |         | 119                                  | 33      | 90                          | 27  | 90                          | 30  |
| Highland Street                             | SB L     |                                   |         |                                     |         | 49                                   | 25      | 49                          | 25  | 50                          | 25  |
|   | SB T     |                                   |         |                                     |         | 249                                  | 186     | 352                         | 278 | 355                         | 280 |
|   | SB R     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| 9. DAVIS STREET AT SITE DRIVEWAY            |          |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Davis Street                                | EB L     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
|   | EB T     |                                   |         |                                     |         | 171                                  | 59      | 142                         | 53  | 145                         | 55  |
| Davis Street                                | WB T     |                                   |         |                                     |         | 174                                  | 179     | 45                          | 62  | 45                          | 60  |
|   | WB R     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Site Driveway                               | SB L     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
|   | SB R     |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| 10. CHESTNUT STREET AT DAVIS STREET         |          |                                   |         |                                     |         |                                      |         |                             |     |                             |     |
| Davis Street                                | EB U     |                                   |         |                                     |         | 3                                    | 1       |                             |     |                             |     |
|   | EB L     |                                   |         |                                     |         | 165                                  | 62      | 66                          | 27  | 65                          | 30  |
|   | EB R     |                                   |         |                                     |         | 4                                    | 2       | 76                          | 26  | 80                          | 25  |
| Chestnut Street                             | NB L     |                                   |         |                                     |         | 1                                    | 5       | 21                          | 32  | 20                          | 30  |
|   | NB T     |                                   |         |                                     |         | 13                                   | 12      | 157                         | 252 | 160                         | 250 |
|   | SB U     |                                   |         |                                     |         | 4                                    | 4       |                             |     |                             |     |
| Chestnut Street                             | SB T     |                                   |         |                                     |         | 3                                    | 12      | 231                         | 236 | 230                         | 235 |
|   | SB R     |                                   |         |                                     |         | 172                                  | 166     | 24                          | 30  | 25                          | 30  |



Massachusetts Highway Department  
Statewide Traffic Data Collection  
2019 Weekday Seasonal Factors

| Factor Group | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  | OCT  | NOV  | DEC  | Axle Factor |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|
| R1           | 1.22 | 1.14 | 1.12 | 1.06 | 1.00 | 0.96 | 0.87 | 0.85 | 0.96 | 0.99 | 1.04 | 1.12 | 0.85        |
| R2           | 0.95 | 0.96 | 0.98 | 0.97 | 0.97 | 0.93 | 0.97 | 0.94 | 0.96 | 0.90 | 0.92 | 0.93 | 0.96        |
| R3           | 1.15 | 1.06 | 1.07 | 1.00 | 0.89 | 0.88 | 0.89 | 0.89 | 0.95 | 0.92 | 1.02 | 1.01 | 0.97        |
| R4-R7        | 1.09 | 1.09 | 1.11 | 1.02 | 0.96 | 0.92 | 0.89 | 0.89 | 0.99 | 0.98 | 1.09 | 1.13 | 0.98        |
| U1-Boston    | 1.03 | 1.01 | 0.98 | 0.94 | 0.94 | 0.92 | 0.95 | 0.93 | 0.94 | 0.94 | 0.97 | 1.04 | 0.96        |
| U1-Essex     | 1.09 | 1.06 | 1.03 | 0.99 | 0.94 | 0.90 | 0.88 | 0.86 | 0.93 | 0.94 | 0.99 | 1.06 | 0.93        |
| U1-Southeast | 1.06 | 1.05 | 1.01 | 0.97 | 0.95 | 0.93 | 0.93 | 0.90 | 0.94 | 0.94 | 0.98 | 1.04 | 0.98        |
| U1-West      | 1.19 | 1.14 | 1.09 | 0.95 | 0.92 | 0.89 | 0.89 | 0.86 | 0.91 | 0.95 | 0.97 | 1.07 | 0.84        |
| U1-Worcester | 1.02 | 1.04 | 0.97 | 0.94 | 0.93 | 0.91 | 0.95 | 0.91 | 0.93 | 0.92 | 0.95 | 1.10 | 0.88        |
| U2           | 1.01 | 1.00 | 0.94 | 0.93 | 0.91 | 0.89 | 0.93 | 0.90 | 0.90 | 0.91 | 0.94 | 1.02 | 0.99        |
| U3           | 1.06 | 1.03 | 0.98 | 0.94 | 0.93 | 0.91 | 0.95 | 0.91 | 0.92 | 0.93 | 0.97 | 1.00 | 0.98        |
| U4-U7        | 1.01 | 1.00 | 0.95 | 0.92 | 0.88 | 0.86 | 0.92 | 0.91 | 0.92 | 0.94 | 0.99 | 1.04 | 0.99        |
| Rec - East   | 1.04 | 1.16 | 1.12 | 0.98 | 0.92 | 0.88 | 0.77 | 0.81 | 0.94 | 1.02 | 1.08 | 1.12 | 0.99        |
| Rec - West   | 1.30 | 1.23 | 1.32 | 1.18 | 0.95 | 0.82 | 0.70 | 0.69 | 0.97 | 0.96 | 1.16 | 1.15 | 0.98        |

Round off:

0-999 = 10

>1000 = 100

U = Urban

R = Rural

1 - Interstate

2 - Freeway and Expressway

3 - Other Principal Arterial

4 - Minor Arterial

5 - Major Collector

6 - Minor Collector

7 - Local Road and Street

|   |
|---|
| <p><b>Recreational - East Group</b> - Cape Cod (all towns) including the town of Plymouth south of Route 3A (stations 7014,7079,7080,7090,7091,7092,7093,7094,7095,7096,7097,7108 and 7178), Martha's Vineyard and Nantucket.</p>   |
| <p><b>Recreational - West Group</b> - Continuous Stations 2 and 189 including stations 1066,1067,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1113,1114,1116,2196,2197 and 2198.</p> |

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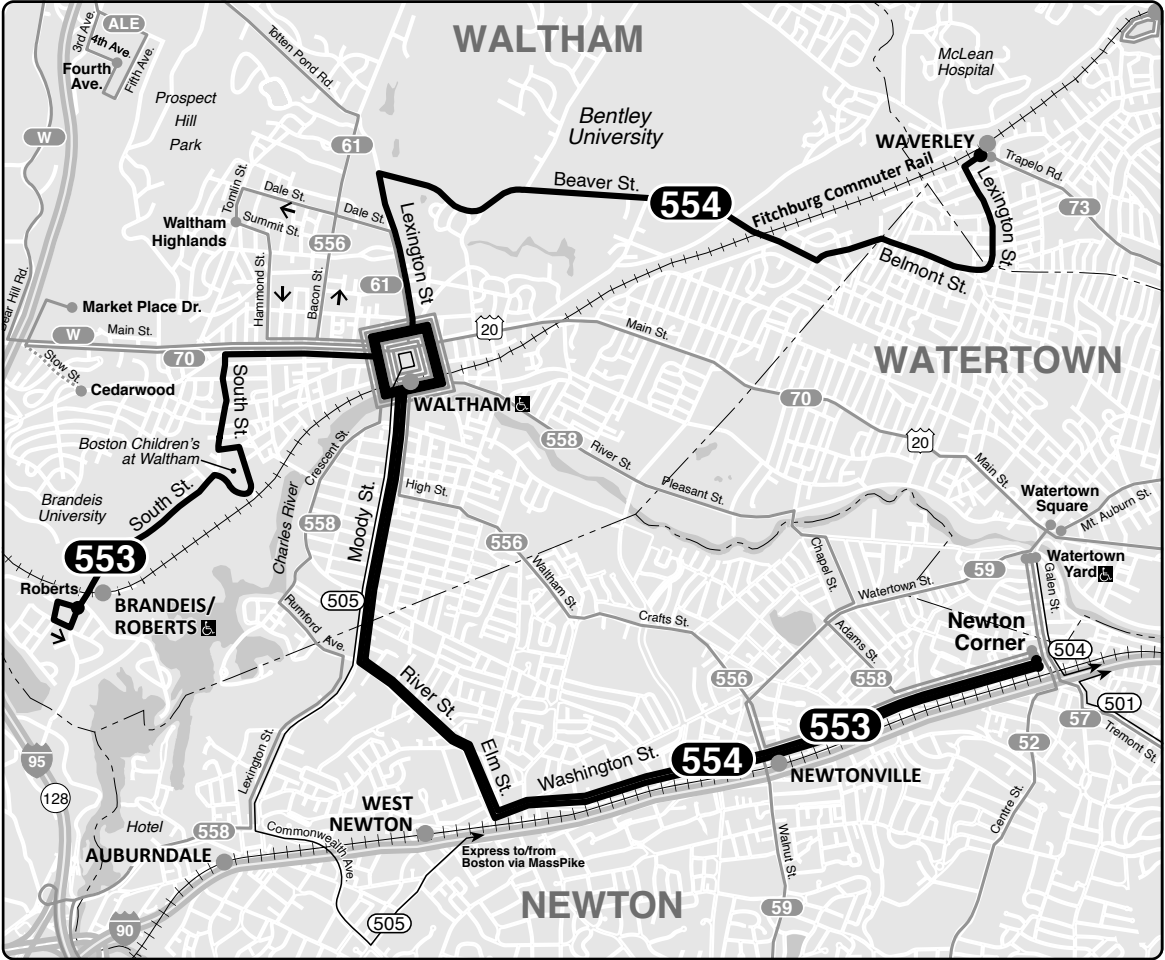
## Public Transportation Schedules

Effective March 13, 2022

**553** Roberts – Newton Corner

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**554** Waverley Sq – Newton Corner



**Connections**

FITCHBURG LINE

FRAMINGHAM/WORCESTER LINE



Information **617-222-3200**

Lost and Found **617-222-1450**

TTY **617-222-5146**

Realtime arrival information, maps, and more

**mbta.com**

- Transfer to bus/subway available on CharlieCard—good for 2 hours, pay fare difference.
- Children 11 & under ride free with a paying customer.
- ♿ All MBTA buses are accessible to people with disabilities.

|                       | CharlieCard   | Cash on board | Reduced fare  |
|-----------------------|---------------|---------------|---------------|
| <b>Local Bus</b>      | <b>\$1.70</b> | <b>\$1.70</b> | <b>\$0.85</b> |
| <b>Local + Exp</b>    | <b>\$4.25</b> | <b>\$5.95</b> | <b>\$2.10</b> |
| <b>Local + Subway</b> | <b>\$2.40</b> | <b>\$4.10</b> | <b>\$1.10</b> |

Fare/pass rules on [mbta.com/fares](http://mbta.com/fares) or call **617-222-3200**

A123-XP2-3-22.0

**Weekday 553 554**

| Inbound       |                     |              |               |  |
|---------------|---------------------|--------------|---------------|--|
| Roberts       | Central Sq, Waltham | West Newton  | Newton Corner |  |
| 6:25          | 6:34                | 6:47         | 6:58          |  |
| <b>A</b> 6:45 | 6:57                | 7:06         | 7:16          |  |
| 7:10          | 7:19                | 7:32         | 7:45          |  |
| 7:55          | 8:08                | 8:21         | 8:34          |  |
| <b>A</b> 8:15 | 8:27                | 8:37         | 8:48          |  |
| 8:40          | 8:50                | 9:03         | 9:13          |  |
| 9:25          | 9:35                | 9:47         | 9:57          |  |
| <b>A</b> 9:45 | 9:58                | 10:08        | 10:19         |  |
| 10:10         | 10:20               | 10:32        | 10:42         |  |
| 10:55         | 11:05               | 11:15        | 11:25         |  |
| 11:40         | 11:50               | <b>12:00</b> | <b>12:10</b>  |  |
| <b>12:25</b>  | <b>12:36</b>        | <b>12:48</b> | <b>12:59</b>  |  |
| <b>1:10</b>   | <b>1:21</b>         | <b>1:33</b>  | <b>1:44</b>   |  |
| <b>1:55</b>   | <b>2:06</b>         | <b>2:18</b>  | <b>2:29</b>   |  |
| <b>2:40</b>   | <b>2:51</b>         | <b>3:03</b>  | <b>3:14</b>   |  |
| <b>3:25</b>   | <b>3:36</b>         | <b>3:48</b>  | <b>3:59</b>   |  |
| <b>4:10</b>   | <b>4:21</b>         | <b>4:33</b>  | <b>4:44</b>   |  |
| <b>A</b> 4:20 | <b>4:33</b>         | <b>4:45</b>  | <b>4:58</b>   |  |
| 4:55          | 5:06                | 5:18         | 5:29          |  |
| 5:05          | 5:13                | 5:20         | 5:40          |  |
| 5:40          | 5:51                | 6:03         | 6:14          |  |
| 6:25          | 6:35                | 6:46         | 6:55          |  |
| <b>A</b> 6:40 | 6:47                | 6:54         | 7:14          |  |
| 7:10          | 7:20                | 7:31         | 7:40          |  |
| 7:55          | 8:05                | 8:16         | 8:25          |  |
| 8:40          | 8:50                | 9:01         | 9:10          |  |

Outbound

| Newton Corner | West Newton  | Central Sq, Waltham | Roberts       |  |
|---------------|--------------|---------------------|---------------|--|
| 6:00          | 6:06         | 6:12                | <b>A</b> 6:28 |  |
| 6:30          | 6:38         | 6:46                | 7:00          |  |
| 7:05          | 7:13         | 7:21                | 7:36          |  |
| 7:30          | 7:37         | 7:43                | <b>A</b> 8:03 |  |
| 7:55          | 8:06         | 8:14                | 8:30          |  |
| 8:40          | 8:51         | 8:59                | 9:17          |  |
| 9:05          | 9:12         | 9:19                | <b>A</b> 9:37 |  |
| 9:20          | 9:34         | 9:41                | 9:59          |  |
| 10:10         | 10:19        | 10:26               | 10:44         |  |
| 10:50         | 11:04        | 11:11               | 11:29         |  |
| 11:35         | 11:46        | 11:55               | <b>12:12</b>  |  |
| <b>12:15</b>  | <b>12:26</b> | <b>12:34</b>        | <b>12:54</b>  |  |
| <b>1:05</b>   | <b>1:16</b>  | <b>1:24</b>         | <b>1:44</b>   |  |
| <b>1:50</b>   | <b>2:01</b>  | <b>2:09</b>         | <b>2:29</b>   |  |
| <b>2:35</b>   | <b>2:50</b>  | <b>2:59</b>         | <b>3:21</b>   |  |
| <b>3:20</b>   | <b>3:35</b>  | <b>3:44</b>         | <b>4:06</b>   |  |
| <b>3:30</b>   | <b>3:38</b>  | <b>3:46</b>         | <b>A</b> 4:07 |  |
| 4:05          | 4:20         | 4:29                | 4:48          |  |
| 4:50          | 5:05         | 5:16                | 5:34          |  |
| 5:05          | 5:13         | 5:20                | <b>A</b> 5:40 |  |
| 5:35          | 5:49         | 6:02                | 6:18          |  |
| 6:20          | 6:34         | 6:47                | 7:03          |  |
| 6:40          | 6:47         | 6:54                | <b>A</b> 7:14 |  |
| 7:00          | 7:14         | 7:27                | 7:43          |  |
| 7:45          | 7:59         | 8:12                | 8:28          |  |
| 8:30          | 8:44         | 8:57                | 9:13          |  |

**Saturday 553**

| Inbound      |                     |             |               |  |
|--------------|---------------------|-------------|---------------|--|
| Roberts      | Central Sq, Waltham | West Newton | Newton Corner |  |
| 6:30         | 6:38                | 6:47        | 6:56          |  |
| 7:30         | 7:38                | 7:47        | 7:56          |  |
| 8:40         | 8:50                | 8:59        | 9:09          |  |
| 9:50         | 10:00               | 10:12       | 10:23         |  |
| 11:15        | 11:27               | 11:39       | 11:50         |  |
| <b>12:45</b> | <b>12:58</b>        | <b>1:09</b> | <b>1:22</b>   |  |
| <b>2:15</b>  | <b>2:27</b>         | <b>2:39</b> | <b>2:49</b>   |  |
| <b>3:40</b>  | <b>3:52</b>         | <b>4:04</b> | <b>4:14</b>   |  |
| <b>5:10</b>  | <b>5:22</b>         | <b>5:34</b> | <b>5:45</b>   |  |
| <b>6:35</b>  | <b>6:45</b>         | <b>6:55</b> | <b>7:06</b>   |  |

Outbound

| Newton Corner | West Newton  | Central Sq, Waltham | Roberts      |  |
|---------------|--------------|---------------------|--------------|--|
| 7:00          | 7:05         | 7:13                | 7:26         |  |
| 8:05          | 8:10         | 8:18                | 8:31         |  |
| 9:15          | 9:22         | 9:30                | 9:44         |  |
| 10:35         | 10:44        | 10:53               | 11:09        |  |
| <b>12:00</b>  | <b>12:11</b> | <b>12:21</b>        | <b>12:37</b> |  |
| <b>1:30</b>   | <b>1:40</b>  | <b>1:50</b>         | <b>2:05</b>  |  |
| <b>3:00</b>   | <b>3:09</b>  | <b>3:19</b>         | <b>3:33</b>  |  |
| <b>4:25</b>   | <b>4:34</b>  | <b>4:43</b>         | <b>4:57</b>  |  |
| <b>5:55</b>   | <b>6:04</b>  | <b>6:13</b>         | <b>6:27</b>  |  |
| <b>7:15</b>   | <b>7:23</b>  | <b>7:31</b>         | <b>7:45</b>  |  |

**A** start/end at Waverley Square at this time

554 trips are shaded

PM times are **bold**

Information in this timetable is subject to change without notice. Traffic and weather may affect running times.

Always check bus destination signs before boarding. Some buses may only serve a part, or skip portions of this route.

2022 Holidays

- SUN** Memorial Day
- SUN** Independence Day
- SUN** Labor Day
- SUN** Thanksgiving Day
- SUN** Christmas Day
- SUN** Christmas Day Observed
- SAT** New Year's Eve
- SUN** New Year's Day

# FRAMINGHAM/WORCESTER LINE

# 2021 Fall/Winter Schedule Effective October 11, 2021

## Monday to Friday (except when Storm Service is operating)

| Inbound to Boston |                  | AM      |               |               |               |               |               |               |               |               |                |                | PM             |               |               |               |               |               |               |               |               |               |               |               |                |                |   |
|-------------------|------------------|---------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|---|
| ZONE              | STATION          | TRAIN # | 500           | 502           | 582           | 504           | 584           | 506           | 586           | 508           | 510            | 512            | 514            | 516           | 518           | 520           | 522           | 524           | 592           | 526           | 528           | 596           | 530           | 532           | 534            | 536            |   |
|                   |                  |         |               |               |               |               |               |               |               |               |                |                |                |               |               |               |               |               |               |               |               |               |               |               |                |                |   |
| 8                 | Worcester        | ♣       | 4:15          | 5:00          | -             | 6:00          | -             | 7:00          | -             | 8:00          | 9:00           | 10:00          | 11:00          | 12:00         | 1:00          | 2:00          | 3:00          | 4:00          | -             | 5:00          | 6:00          | -             | 7:00          | 8:20          | 9:20           | 10:20          |   |
| 8                 | Grafton          | ♣       | 4:28          | 5:13          | -             | 6:13          | -             | 7:13          | -             | 8:13          | 9:13           | 10:13          | 11:13          | 12:13         | 1:13          | 2:13          | 3:13          | 4:13          | -             | 5:13          | 6:13          | -             | 7:13          | 8:33          | 9:33           | <b>f 10:33</b> |   |
| 7                 | Westborough      | ♣       | 4:32          | 5:17          | -             | 6:17          | -             | 7:17          | -             | 8:17          | 9:17           | 10:17          | 11:17          | 12:17         | 1:17          | 2:17          | 3:17          | 4:17          | -             | 5:17          | 6:17          | -             | 7:17          | 8:37          | 9:37           | <b>f 10:37</b> |   |
| 6                 | Southborough     | ♣       | 4:41          | 5:26          | -             | 6:26          | -             | 7:26          | -             | 8:26          | 9:26           | 10:26          | 11:26          | 12:26         | 1:26          | 2:26          | 3:26          | 4:26          | -             | 5:26          | 6:26          | -             | 7:26          | 8:46          | 9:46           | <b>f 10:46</b> |   |
| 6                 | Ashland          | ♣       | 4:45          | 5:30          | -             | 6:30          | -             | 7:30          | -             | 8:30          | 9:30           | 10:30          | 11:30          | 12:30         | 1:30          | 2:30          | 3:30          | 4:30          | -             | 5:30          | 6:30          | -             | 7:30          | 8:50          | 9:50           | <b>f 10:50</b> |   |
| 5                 | Framingham       | ♣       | 4:55          | 5:40          | 5:55          | 6:40          | 6:55          | 7:40          | 7:55          | 8:40          | 9:40           | 10:40          | 11:40          | 12:40         | 1:40          | 2:40          | 3:40          | 4:40          | 5:10          | 5:40          | 6:40          | 7:10          | 7:40          | 9:00          | 10:00          | <b>f 11:00</b> |   |
| 4                 | West Natick      | ♣       | 5:00          | 5:45          | 6:00          | 6:45          | 7:00          | 7:45          | 8:00          | 8:45          | 9:45           | 10:45          | 11:45          | 12:45         | 1:45          | 2:45          | 3:45          | 4:45          | 5:15          | 5:45          | 6:45          | 7:15          | 7:45          | 9:05          | 10:05          | <b>f 11:05</b> |   |
| 4                 | Natick Center    | ♣       | 5:05          | -             | 6:05          | -             | 7:05          | -             | 8:05          | 8:50          | 9:50           | 10:50          | 11:50          | 12:50         | 1:50          | 2:50          | 3:50          | 4:50          | 5:20          | 5:50          | 6:50          | 7:20          | 7:50          | 9:10          | 10:10          | <b>f 11:10</b> |   |
| 3                 | Wellesley Square | ♣       | 5:09          | -             | 6:09          | -             | 7:09          | -             | 8:09          | 8:54          | 9:54           | 10:54          | 11:54          | 12:54         | 1:54          | 2:54          | 3:54          | 4:54          | 5:24          | 5:54          | 6:54          | 7:24          | 7:54          | 9:14          | 10:14          | <b>f 11:14</b> |   |
| 3                 | Wellesley Hills  | ♣       | 5:13          | -             | 6:13          | -             | 7:13          | -             | 8:13          | 8:57          | 9:57           | 10:57          | 11:57          | 12:57         | 1:57          | 2:57          | 3:57          | 4:57          | 5:27          | 5:57          | 6:57          | 7:27          | 7:57          | 9:17          | 10:17          | <b>f 11:17</b> |   |
| 3                 | Wellesley Farms  | ♣       | 5:16          | -             | 6:16          | -             | 7:16          | -             | 8:16          | 9:00          | 10:00          | 11:00          | 12:00          | 1:00          | 2:00          | 3:00          | 4:00          | 5:00          | 5:30          | 6:00          | 7:00          | 7:30          | 8:00          | 9:20          | 10:20          | <b>f 11:20</b> |   |
| 2                 | Auburndale       | ♣       | 5:21          | -             | 6:21          | -             | 7:21          | -             | 8:21          | 9:05          | <b>f 10:05</b> | <b>f 11:05</b> | -              | <b>f 1:05</b> | -             | -             | -             | -             | -             | -             | -             | -             | <b>f 7:35</b> | -             | <b>f 9:25</b>  | <b>f 10:25</b> | - |
| 2                 | West Newton      | ♣       | 5:24          | -             | 6:24          | -             | 7:24          | -             | 8:24          | 9:08          | <b>f 10:08</b> | <b>f 11:08</b> | -              | <b>f 1:08</b> | -             | -             | -             | -             | -             | -             | -             | -             | <b>f 7:38</b> | -             | <b>f 9:28</b>  | <b>f 10:28</b> | - |
| 1                 | Newtonville      | ♣       | 5:27          | -             | 6:28          | -             | 7:27          | -             | 8:28          | 9:12          | <b>f 10:11</b> | <b>f 11:11</b> | -              | <b>f 1:11</b> | -             | -             | -             | -             | -             | -             | -             | -             | <b>f 7:41</b> | -             | <b>f 9:31</b>  | <b>f 10:31</b> | - |
| 1A                | Boston Landing   | ♣       | <b>L 5:34</b> | <b>L 6:07</b> | <b>L 6:35</b> | <b>L 7:07</b> | <b>L 7:35</b> | <b>L 8:07</b> | <b>L 8:35</b> | <b>L 9:18</b> | <b>L 10:17</b> | <b>L 11:17</b> | <b>L 12:12</b> | <b>L 1:17</b> | <b>L 2:12</b> | <b>L 3:12</b> | <b>L 4:12</b> | <b>L 5:12</b> | <b>L 5:42</b> | <b>L 6:12</b> | <b>L 7:12</b> | <b>L 7:47</b> | <b>L 8:12</b> | <b>L 9:37</b> | <b>L 10:37</b> | <b>L 11:32</b> |   |
| 1A                | Lansdowne        | ♣       | <b>L 5:39</b> | <b>L 6:12</b> | <b>L 6:40</b> | <b>L 7:12</b> | <b>L 7:40</b> | <b>L 8:12</b> | <b>L 8:40</b> | <b>L 9:23</b> | <b>L 10:22</b> | <b>L 11:22</b> | <b>L 12:17</b> | <b>L 1:22</b> | <b>L 2:17</b> | <b>L 3:17</b> | <b>L 4:17</b> | <b>L 5:17</b> | <b>L 5:47</b> | <b>L 6:17</b> | <b>L 7:17</b> | <b>L 7:52</b> | <b>L 8:17</b> | <b>L 9:42</b> | <b>L 10:42</b> | <b>L 11:37</b> |   |
| 1A                | Back Bay         | ♣       | <b>L 5:44</b> | <b>L 6:17</b> | <b>L 6:45</b> | <b>L 7:17</b> | <b>L 7:45</b> | <b>L 8:17</b> | <b>L 8:45</b> | <b>L 9:28</b> | <b>L 10:27</b> | <b>L 11:27</b> | <b>L 12:22</b> | <b>L 1:27</b> | <b>L 2:22</b> | <b>L 3:22</b> | <b>L 4:22</b> | <b>L 5:22</b> | <b>L 5:52</b> | <b>L 6:22</b> | <b>L 7:22</b> | <b>L 7:57</b> | <b>L 8:22</b> | <b>L 9:47</b> | <b>L 10:47</b> | <b>L 11:42</b> |   |
| 1A                | South Station    | ♣       | 5:50          | 6:23          | 6:51          | 7:23          | 7:51          | 8:23          | 8:51          | 9:34          | 10:33          | 11:33          | 12:28          | 1:33          | 2:28          | 3:28          | 4:28          | 5:28          | 5:58          | 6:28          | 7:28          | 8:03          | 8:28          | 9:53          | 10:53          | 11:48          |   |

## Monday to Friday (except when Storm Service is operating)

| Outbound from Boston |                  | AM      |               |               |      |      |       |                |                |                |               |               | PM            |      |      |      |      |      |      |      |               |               |                |                |
|----------------------|------------------|---------|---------------|---------------|------|------|-------|----------------|----------------|----------------|---------------|---------------|---------------|------|------|------|------|------|------|------|---------------|---------------|----------------|----------------|
| ZONE                 | STATION          | TRAIN # | 501           | 503           | 505  | 507  | 509   | 511            | 513            | 515            | 517           | 519           | 521           | 591  | 523  | 593  | 525  | 595  | 527  | 529  | 531           | 533           | 535            | 537            |
|                      |                  |         |               |               |      |      |       |                |                |                |               |               |               |      |      |      |      |      |      |      |               |               |                |                |
| 1A                   | South Station    | ♣       | 4:55          | 5:55          | 6:55 | 7:55 | 8:55  | 9:55           | 10:55          | 11:50          | 12:55         | 1:50          | 2:50          | 3:35 | 4:05 | 4:35 | 5:05 | 5:35 | 6:05 | 6:35 | 7:35          | 8:35          | 9:55           | 10:55          |
| 1A                   | Back Bay         | ♣       | 5:01          | 6:01          | 7:01 | 8:01 | 9:01  | 10:01          | 11:01          | 11:56          | 1:01          | 1:56          | 2:56          | 3:41 | 4:11 | 4:41 | 5:11 | 5:41 | 6:11 | 6:41 | 7:41          | 8:41          | 10:01          | 11:01          |
| 1A                   | Lansdowne        | ♣       | 5:06          | 6:06          | 7:06 | 8:06 | 9:06  | 10:06          | 11:06          | 12:01          | 1:06          | 2:01          | 3:01          | 3:46 | 4:16 | 4:46 | 5:16 | 5:46 | 6:16 | 6:46 | 7:46          | 8:46          | 10:06          | 11:06          |
| 1A                   | Boston Landing   | ♣       | <b>f 5:11</b> | <b>f 6:11</b> | 7:11 | 8:11 | 9:11  | <b>f 10:11</b> | <b>f 11:11</b> | <b>f 12:06</b> | <b>f 1:11</b> | <b>f 2:06</b> | <b>f 3:06</b> | 3:51 | 4:21 | 4:51 | 5:21 | 5:51 | 6:21 | 6:51 | <b>f 7:51</b> | <b>f 8:51</b> | <b>f 10:11</b> | <b>f 11:11</b> |
| 1                    | Newtonville      | ♣       | -             | -             | -    | -    | -     | -              | -              | <b>f 12:11</b> | -             | <b>f 2:11</b> | <b>f 3:11</b> | 3:56 | -    | 4:56 | -    | 5:56 | -    | 6:56 | <b>f 7:56</b> | <b>f 8:56</b> | <b>f 10:16</b> | <b>f 11:16</b> |
| 2                    | West Newton      | ♣       | -             | -             | -    | -    | -     | -              | -              | <b>f 12:14</b> | -             | <b>f 2:14</b> | <b>f 3:14</b> | 4:00 | -    | 5:00 | -    | 6:00 | -    | 7:00 | <b>f 7:59</b> | <b>f 8:59</b> | <b>f 10:19</b> | <b>f 11:19</b> |
| 2                    | Auburndale       | ♣       | -             | -             | -    | -    | -     | -              | -              | <b>f 12:17</b> | -             | <b>f 2:17</b> | <b>f 3:17</b> | 4:03 | -    | 5:03 | -    | 6:03 | -    | 7:03 | <b>f 8:02</b> | <b>f 9:02</b> | <b>f 10:22</b> | <b>f 11:22</b> |
| 3                    | Wellesley Farms  | ♣       | <b>f 5:21</b> | 6:21          | 7:21 | 8:21 | 9:21  | 10:21          | 11:21          | 12:21          | 1:21          | 2:21          | 3:21          | 4:07 | -    | 5:07 | -    | 6:07 | -    | 7:06 | 8:06          | 9:06          | 10:26          | 11:26          |
| 3                    | Wellesley Hills  | ♣       | <b>f 5:23</b> | 6:23          | 7:23 | 8:23 | 9:23  | 10:23          | 11:23          | 12:23          | 1:23          | 2:23          | 3:23          | 4:10 | -    | 5:10 | -    | 6:10 | -    | 7:08 | 8:08          | 9:08          | 10:28          | 11:28          |
| 3                    | Wellesley Square | ♣       | <b>f 5:26</b> | 6:26          | 7:26 | 8:26 | 9:26  | 10:26          | 11:26          | 12:26          | 1:26          | 2:26          | 3:26          | 4:13 | -    | 5:13 | -    | 6:13 | -    | 7:11 | 8:11          | 9:11          | 10:31          | 11:31          |
| 4                    | Natick Center    | ♣       | <b>f 5:30</b> | 6:30          | 7:30 | 8:30 | 9:30  | 10:30          | 11:30          | 12:30          | 1:30          | 2:30          | 3:30          | 4:17 | -    | 5:17 | -    | 6:17 | -    | 7:15 | 8:15          | 9:15          | 10:35          | 11:35          |
| 4                    | West Natick      | ♣       | 5:35          | 6:35          | 7:35 | 8:35 | 9:35  | 10:35          | 11:35          | 12:35          | 1:35          | 2:35          | 3:35          | 4:22 | 4:38 | 5:22 | 5:38 | 6:22 | 6:38 | 7:20 | 8:20          | 9:20          | 10:40          | 11:40          |
| 5                    | Framingham       | ♣       | 5:40          | 6:40          | 7:40 | 8:40 | 9:40  | 10:40          | 11:40          | 12:40          | 1:40          | 2:40          | 3:40          | 4:30 | 4:43 | 5:30 | 5:43 | 6:30 | 6:43 | 7:25 | 8:25          | 9:25          | 10:45          | 11:45          |
| 6                    | Ashland          | ♣       | 5:46          | 6:46          | 7:46 | 8:46 | 9:46  | 10:46          | 11:46          | 12:46          | 1:46          | 2:46          | 3:46          | -    | 4:49 | -    | 5:49 | -    | 6:49 | 7:31 | 8:31          | 9:31          | 10:51          | 11:51          |
| 6                    | Southborough     | ♣       | 5:51          | 6:51          | 7:51 | 8:51 | 9:51  | 10:51          | 11:51          | 12:51          | 1:51          | 2:51          | 3:51          | -    | 4:54 | -    | 5:54 | -    | 6:54 | 7:36 | 8:36          | 9:36          | 10:56          | 11:56          |
| 7                    | Westborough      | ♣       | 6:00          | 7:00          | 8:00 | 9:00 | 10:00 | 11:00          | 12:00          | 1:00           | 2:00          | 3:00          | 4:00          | -    | 5:03 | -    | 6:03 | -    | 7:03 | 7:45 | 8:45          | 9:45          | 11:05          | 12:05          |
| 8                    | Grafton          | ♣       | 6:05          | 7:05          | 8:05 | 9:05 | 10:05 | 11:05          | 12:05          | 1:05           | 2:05          | 3:05          | 4:05          | -    | 5:09 | -    | 6:09 | -    | 7:09 | 7:50 | 8:50          | 9:50          | <b>f 11:10</b> | <b>f 12:10</b> |
| 8                    | Worcester        | ♣       | 6:21          | 7:21          | 8:21 | 9:21 | 10:21 | 11:21          | 12:21          | 1:21           | 2:21          | 3:21          | 4:21          | -    | 5:28 | -    | 6:28 | -    | 7:28 | 8:08 | 9:06          | 10:06         | 11:26          | 12:26          |

- Times in purple with “f” indicate a flag stop: Passengers must tell the conductor that they wish to leave. Passengers waiting to board must be visible on the platform for the train to stop.
- Times in blue with “L” indicate an early departure: The train may leave ahead of schedule at these stops.
- Bikes: Bicycles are allowed on trains with the bicycle symbol shown below the train number.
- High level platform and bridge plate available. Visit [mbta.com/accessibility](https://www.mbta.com/accessibility) for more information.

**Schedules may change in the event of severe weather**

During weather events, these symbols will communicate service level and impact on passengers. Service level for the following day will be announced mid afternoon on the prior day.

- REGULAR SERVICE**  
Trains will operate on a normal schedule.
- STORM SERVICE**  
Trains will operate on a weekend schedule.
- NO SERVICE**  
No passenger service on Commuter Rail.

## Weekend & Storm Service

| Inbound to Boston |                  | AM             |      |      |       |       |      |      |      |      |       |       | PM   |      |      |      |      |      |      |      |      |      |  |
|-------------------|------------------|----------------|------|------|-------|-------|------|------|------|------|-------|-------|------|------|------|------|------|------|------|------|------|------|--|
| ZONE              | STATION          | SUNDAY TRAIN # | 1500 | 1502 | 1504  | 1506  | 1508 | 1510 | 1512 | 1514 | 1516  | 1518  | 2500 | 2502 | 2504 | 2506 | 2508 | 2510 | 2512 | 2514 | 2516 | 2518 |  |
|                   |                  |                |      |      |       |       |      |      |      |      |       |       |      |      |      |      |      |      |      |      |      |      |  |
| 8                 | Worcester        | ♣              | 5:10 | 7:10 | 9:10  | 11:10 | 1:10 | 3:10 | 5:10 | 7:10 | 9:10  | 11:10 | ♣    |      |      |      |      |      |      |      |      |      |  |
| 8                 | Grafton          | ♣              | 5:23 | 7:23 | 9:23  | 11:23 | 1:23 | 3:23 | 5:23 | 7:23 | 9:23  | 11:23 | ♣    |      |      |      |      |      |      |      |      |      |  |
| 7                 | Westborough      | ♣              | 5:27 | 7:27 | 9:27  | 11:27 | 1:27 | 3:27 | 5:27 | 7:27 | 9:27  | 11:27 | ♣    |      |      |      |      |      |      |      |      |      |  |
| 6                 | Southborough     | ♣              | 5:35 | 7:35 | 9:35  | 11:35 | 1:35 | 3:35 | 5:35 | 7:35 | 9:35  | 11:35 | ♣    |      |      |      |      |      |      |      |      |      |  |
| 6                 | Ashland          | ♣              | 5:40 | 7:40 | 9:40  | 11:40 | 1:40 | 3:40 | 5:40 | 7:40 | 9:40  | 11:40 | ♣    |      |      |      |      |      |      |      |      |      |  |
| 5                 | Framingham       | ♣              | 5:50 | 7:50 | 9:50  | 11:50 | 1:50 | 3:50 | 5:50 | 7:50 | 9:50  | 11:50 | ♣    |      |      |      |      |      |      |      |      |      |  |
| 4                 | West Natick      | ♣              | 5:54 | 7:54 | 9:54  | 11:54 | 1:54 | 3:54 | 5:54 | 7:54 | 9:54  | 11:54 | ♣    |      |      |      |      |      |      |      |      |      |  |
| 4                 | Natick Center    | ♣              | 5:59 | 7:59 | 9:59  | 11:59 | 1:59 | 3:59 | 5:59 | 7:59 | 9:59  | 11:59 | ♣    |      |      |      |      |      |      |      |      |      |  |
| 3                 | Wellesley Square | ♣              | 6:04 | 8:04 | 10:04 | 12:04 | 2:04 | 4:04 | 6:04 | 8:04 | 10:04 |       |      |      |      |      |      |      |      |      |      |      |  |

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## Crash Data (2015-2019)

























1314 Washington Street Redevelopment

Crash Data

| Crash Number | City Town Name | Crash Date | Crash Severity                      | Crash Time | Max Injury Severity Reported          | Number of Vehicles | Police Agency Type | Age of Driver - Youngest Known | Age of Driver - Oldest Known | Driver Contributing Circumstances (All Drivers)  | Light Conditions       | Manner of Collision           | Non-Motorist Type (All Persons) | Road Surface Condition | Total Fatalities | Total Non-Fatal Injuries | Vehicle Actions Prior to Crash (All Vehicles)   | Vehicle Configuration (All Vehicles)   | Vehicle Travel Directions (All Vehicles) | Weather Conditions | Crash Report IDs        | Most Harmful Event (All Vehicles)  | Street Number | Roadway                                |
|--------------|----------------|------------|-------------------------------------|------------|---------------------------------------|--------------------|--------------------|--------------------------------|------------------------------|--|------------------------|-------------------------------|---------------------------------|------------------------|------------------|--------------------------|---|--|--|--------------------|-------------------------|--|---------------|--|
| 3996175      | NEWTON         | 01/09/2015 | Property damage only (none injured) | 9:52 AM    | No injury                             | 3                  | Local police       | 25-34                          | 55-64                        | D1: (No improper driving) / D2: (No improper driving) / D3: (No improper driving)                        | Daylight               | Angle                         |                                 | Snow                   | 0                | 0                        | V1: Travelling straight ahead / V2: Slowing or stopped in traffic / V3: Travelling straight ahead | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car) / V3:(Passenger car)                                     | V1: W / V2: N / V3: W                    | Snow               | 150000027               | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic) |               | WASHINGTON ST Rte 16 W / ELM ST        |
| 4008933      | NEWTON         | 02/03/2015 | Property damage only (none injured) | 8:16 PM    | No injury                             | 2                  | Local police       | 25-34                          | 35-44                        | D1: (No improper driving) / D2: (Unknown),(Unknown)  | Dark - lighted roadway | Sideswipe, opposite direction |                                 | Snow                   | 0                | 0                        | V1: Travelling straight ahead / V2: Travelling straight ahead                                     | V1:(Passenger car) / V2:(Passenger car)  | V1: N / V2: W                            | Clear              | 1500000157              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  |               | ELM ST / WASHINGTON ST                 |
| 4016506      | NEWTON         | 02/19/2015 | Non-fatal injury                    | 10:40 AM   | Non-fatal injury - Non-incapacitating | 2                  | Local police       | 25-34                          | 55-64                        | D1: (Unknown) / D2: (Unknown)  | Daylight               | Unknown                       |                                 | Wet                    | 0                | 1                        | V1: Travelling straight ahead / V2: Travelling straight ahead                                     | V1:(Passenger car) / V2:(Passenger car)  | V1: W / V2: N                            | Cloudy             | 1500000257              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  |               | ELM ST / WASHINGTON ST                 |
| 4100179      | NEWTON         | 08/26/2015 | Property damage only (none injured) | 12:56 PM   | No injury                             | 2                  | Local police       | 18-20                          | 18-20                        | D1: (Distracted)   | Daylight               | Rear-end                      |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Parked  | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))                      | V1: W / V2: Not Reported                 | Clear              | 1500000940              | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)  | 1369          | WASHINGTON ST                          |
| 4147117      | NEWTON         | 01/20/2016 | Non-fatal injury                    | 5:25 PM    | Non-fatal injury - Incapacitating     | 1                  | Local police       | 55-64                          | 55-64                        | D1: (Inattention)  | Dark - lighted roadway | Single vehicle crash          | P2: Pedestrian                  | Dry                    | 0                | 1                        | V1: Turning right   | V1:(Passenger car)   | V1: W                                    | Clear              | 1600000048 / 1600000048 | V1:(Collision with pedestrian)   |               | WASHINGTON ST / ELM ST                 |
| 4226019      | NEWTON         | 07/15/2016 | Property damage only (none injured) | 4:19 PM    | No injury                             | 3                  | Local police       | 35-44                          | 75-84                        | D1: (Unknown) / D2: (Unknown)  | Daylight               | Angle                         |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Turning right / V3: Parked                                    | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) / V3:(Passenger car) | V1: W / V2: S / V3: W                    | Clear              | 1600000697 / 1600000697 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic) |               | WASHINGTON ST Rte 16 W / ELM ST        |
| 4229246      | NEWTON         | 07/29/2016 | Property damage only (none injured) | 1:31 PM    | No injury                             | 2                  | Local police       | 25-34                          | 25-34                        | D1: (Inattention)  | Daylight               | Sideswipe, same direction     |                                 | Dry                    | 0                | 0                        | V1: Leaving traffic lane / V2: Parked   | V1:(Passenger car) / V2:(Passenger car)  | V1: W / V2: W                            | Clear              | 1600000744 / 1600000744 | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)  |               | WASHINGTON AT / ELM ST / WASHINGTON ST |
| 4283470      | NEWTON         | 10/27/2016 | Property damage only (none injured) | 7:16 PM    | No injury                             | 2                  | Local police       | 35-44                          | 55-64                        | D1: (Inattention) / D2: (No improper driving)  | Dark - lighted roadway | Rear-end                      |                                 | Wet                    | 0                | 0                        | V1: Travelling straight ahead / V2: Slowing or stopped in traffic                                 | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))                      | V1: W / V2: W                            | Rain               | 1600001120 / 1600001120 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  |               | WASHINGTON ST Rte 16 W / ELM ST        |
| 4300680      | NEWTON         | 11/11/2016 | Unknown                             | 9:00 AM    | Not reported                          | 1                  | Local police       |                                |                              |  | Daylight               | Sideswipe, opposite direction |                                 | Dry                    | 0                | 0                        | V1: Parked  | V1:(Passenger car)   | V1: N                                    | Not Reported       | 1600001201 / 1600001201 | V1:(Collision with parked motor vehicle)   | 1369          | WASHINGTON TON ST                      |
| 4402744      | NEWTON         | 06/19/2017 | Property damage only (none injured) | 12:02 PM   | No injury                             | 2                  | Local police       |                                |                              | D1: (No improper driving) / D2: (Other improper action)  | Daylight               | Angle                         |                                 | Dry                    | 0                | 0                        | V1: Slowing or stopped in traffic / V2: Backing   | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))  | V1: N / V2: S                            | Clear              | 1700000718 / 1700000718 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  |               | WASHINGTON TON ST                      |
| 4473365      | NEWTON         | 12/05/2017 | Property damage only (none injured) | 7:10 PM    | No injury                             | 2                  | Local police       | 35-44                          | 35-44                        | D1: (No improper driving)  | Dark - lighted roadway | Angle                         |                                 | Wet                    | 0                | 0                        | V1: Travelling straight ahead / V2: Travelling straight ahead                                     | V1:(Passenger car) / V2:(Passenger car)  | V1: N / V2: W                            | Rain               | 1700001413              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  |               | ELM ST / WASHINGTON TON ST             |
| 4515688      | NEWTON         | 03/08/2018 | Property damage only (none injured) | 8:25 AM    | No injury                             | 2                  | Local police       | 25-34                          | 25-34                        | D1: (Inattention)  | Daylight               | Sideswipe, same direction     |                                 | Wet                    | 0                | 0                        | V1: Travelling straight ahead / V2: Parked  | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))                      | V1: W / V2: W                            | Snow               | 1800000261              | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)  | 1369          | WASHINGTON TON STREET                  |
| 4551945      | NEWTON         | 06/01/2018 | Property damage only (none injured) | 12:43 PM   | No injury                             | 2                  | Local police       | 21-24                          | 35-44                        | D1: (No improper driving) / D2: (Other improper action)  | Daylight               | Rear-end                      |                                 | Wet                    | 0                | 0                        | V1: Slowing or stopped in traffic / V2: Travelling straight ahead                                 | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Other e.g. farm equipment)  | V1: W / V2: W                            | Rain               | 1800000612              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  |               | ELM ST / WASHINGTON TON ST             |
| 4568146      | NEWTON         | 06/21/2018 | Property damage only (none injured) | 1:11 AM    | No injury                             | 1                  | Local police       | 25-34                          | 25-34                        | D1: (Wrong side or wrong way)  | Dark - lighted roadway | Single vehicle crash          |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead   | V1:(Passenger car)   | V1: W                                    | Clear              | 1800000698              | V1:(Collision with guardrail)  | 1369          | WASHINGTON TON ST                      |
| 4589154      | NEWTON         | 08/05/2018 | Property damage only (none injured) | 2:42 AM    | No injury                             | 1                  | Local police       | 25-34                          | 25-34                        | D1: (Operating vehicle in erratic, reckless, careless, negligent or aggressive manner),(Failure to keep) | Dark - lighted roadway | Single vehicle crash          |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead   | V1:(Passenger car)   | V1: E                                    | Clear              | 1800000898              | V1:(Collision with utility pole)   | 1362          | WASHINGTON TON ST                      |
| 4702016      | NEWTON         | 04/25/2019 | Not Reported                        | 2:51 PM    | Not reported                          | 1                  | Local police       |                                |                              |  | Unknown                | Unknown                       |                                 | Unknown                | 0                | 0                        | V1: Parked  | V1:(Passenger car)   | V1: U                                    | Unknown/Unknown    | 1900000418              | V1:(Collision with motor vehicle in traffic)   | 1369          | WASHINGTON TON ST                      |

1314 Washington Street Redevelopment

Crash Data

| Crash Number | City Town Name | Crash Date | Crash Severity                      | Crash Time | Max Injury Severity Reported      | Number of Vehicles | Police Agency Type | Age of Driver - Youngest | Age of Driver - Oldest | Driver Contributing Circumstances (All Drivers)  | Light Conditions       | Manner of Collision       | Non-Motorist Type (All Persons) | Road Surface Condition       | Total Fatalities | Total Non-Fatal Injuries | Vehicle Actions Prior to Crash (All Vehicles)   | Vehicle Configuration (All Vehicles)   | Vehicle Travel Directions (All Vehicles)            | Weather Conditions | Crash Report IDs        | Most Harmful Event (All Vehicles)  | Street Number | Roadway   |
|--------------|----------------|------------|-------------------------------------|------------|-----------------------------------|--------------------|--------------------|--------------------------|------------------------|--|------------------------|---------------------------|---------------------------------|------------------------------|------------------|--------------------------|---|--|---|--------------------|-------------------------|--|---------------|---|
| 4072459      | NEWTON         | 08/03/2015 | Property damage only (none injured) | 9:32 PM    | No injury                         | 1                  | Local police       | 35-44                    | 35-44                  | D1: (No improper driving),(No improper driving)  | Dark - lighted roadway | Sideswipe, same direction |                                 | Dry                          | 0                | 0                        | V1: Slowing or stopped in traffic / V2: Travelling straight ahead / V3: Slowing or stopped in traffic | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility)) / V3:(Light truck(van, mini-van, pickup, sport utility))                                     | V1: W   | Clear              | 1500000868              | V1:(Collision with motor vehicle in traffic)   | 1359          | WASHINGTON ST Rte 16 W                          |
| 4106943      | NEWTON         | 09/30/2015 | Property damage only (none injured) | 3:35 PM    | No injury                         | 3                  | Local police       | 25-34                    | 45-54                  | D1: (Followed too closely),(No improper driving) / D2: (Driving too fast for conditions) | Daylight               | Rear-end                  |                                 | Wet                          | 0                | 0                        | V1: Slowing or stopped in traffic / V2: Travelling straight ahead / V3: Slowing or stopped in traffic | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) / V3:(Light truck(van, mini-van, pickup, sport utility)) | V1: E / V2: E / V3: E                               | Rain/Cloudy        | 1500001057              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic) | 1349          | WASHINGTON STREET Rte 16 E /                    |
| 4217955      | NEWTON         | 07/05/2016 | Property damage only (none injured) | 3:22 PM    | No injury                         | 2                  | Local police       | 21-24                    | 35-44                  | D1: (Unknown) / D2: (Unknown)  | Daylight               | Sideswipe, same direction |                                 | Dry                          | 0                | 0                        | V1: Travelling straight ahead / V2: Turning left  | V1:(Single-unit truck (2-axle, 6-tires)) / V2:(Single-unit truck (2-axle, 6-tires))  | V1: E / V2: E                                       | Clear              | 1600000657 / 1600000657 | V1:(Collision with embankment) / V2:(Collision with motor vehicle in traffic)  |               | WASHINGTON STREET / CHERRY                      |
| 4250524      | NEWTON         | 09/13/2016 | Non-fatal injury                    | 3:40 PM    | Non-fatal injury - Possible       | 2                  | Local police       | 35-44                    | 35-44                  | D1: (No improper driving) / D2: (Inattention)  | Daylight               | Rear-end                  |                                 | Dry                          | 0                | 1                        | V1: Slowing or stopped in traffic / V2: Travelling straight ahead                                     | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))  | V1: W / V2: W                                       | Clear              | 1600000925 / 1600000925 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  | 1349          | WASHINGTON ST                                   |
| 4283393      | NEWTON         | 10/09/2016 | Property damage only (none injured) | 12:37 AM   | No injury                         | 1                  | Local police       | 25-34                    | 25-34                  | D1: (Failure to keep in proper lane or running off road)                                 | Dark - lighted roadway | Single vehicle crash      |                                 | Wet                          | 0                | 0                        | V1: Travelling straight ahead   | V1:(Passenger car)   | V1: W   | Clear              | 1600001039 / 1600001039 | V1:(Collision with highway traffic sign post)  | 1349          | WASHINGTON ST CHERRY STREET / WASHINGTON STREET |
| 4284168      | NEWTON         | 11/10/2016 | Property damage only (none injured) | 8:23 AM    | No injury                         | 2                  | Local police       | 55-64                    | 55-64                  | D1: (No improper driving)  | Daylight               | Sideswipe, same direction |                                 | Dry                          | 0                | 0                        | V1: Travelling straight ahead / V2: Changing lanes  | V1:(Passenger car) / V2:(Unknown heavy truck, cannot classify)   | V1: W / V2: W                                       | Clear              | 1600001184 / 1600001184 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  |               | CHERRY ST / WASHINGTON ST                       |
| 4402635      | NEWTON         | 06/09/2017 | Non-fatal injury                    | 8:24 AM    | Non-fatal injury - Incapacitating | 1                  | Local police       | 25-34                    | 25-34                  | D1: (No improper driving)  | Daylight               | Single vehicle crash      | P2: Pedestrian                  | Dry                          | 0                | 1                        | V1: Turning left  | V1:(Light truck(van, mini-van, pickup, sport utility))   | V1: N   | Clear              | 1700000670 / 1700000670 | V1:(Collision with pedestrian)   |               | CHERRY ST / WASHINGTON ST                       |
| 4408257      | NEWTON         | 01/25/2017 | Not Reported                        | 1:57 PM    | Not reported                      | 2                  | Local police       |                          |                        |  | Daylight               | Sideswipe, same direction |                                 | Dry                          | 0                | 0                        | V1: Parked / V2: Parked   | V1:(Passenger car) / V2:(Passenger car)  | V1: Reported but invalid / V2: Reported but invalid | Clear              | 1700000080              | V1:(Collision with parked motor vehicle) / V2:(Collision with parked motor vehicle)  | 1359          | WASHINGTON ST CHERRY ST / WASHINGTON Rte 16 E   |
| 4408548      | NEWTON         | 04/24/2017 | Property damage only (none injured) | 5:34 AM    | No injury                         | 1                  | Local police       | 35-44                    | 35-44                  | D1: (No improper driving)  | Dawn                   | Sideswipe, same direction |                                 | Dry                          | 0                | 0                        | V1: Turning left  | V1:(Passenger car)   | V1: S   | Clear              | 1700000467 / 1700000467 | V1:(Collision with motor vehicle in traffic)   |               | WASHINGTON ST CHERRY ST / WASHINGTON Rte 16 E   |
| 4409165      | NEWTON         | 02/16/2017 | Property damage only (none injured) | 7:40 AM    | No injury                         | 2                  | Local police       | 35-44                    | 45-54                  | D1: (No improper driving) / D2: (Failure to keep in proper lane or running off road)     | Daylight               | Angle                     |                                 | Wet                          | 0                | 0                        | V1: Travelling straight ahead / V2: Travelling straight ahead   | V1:(Passenger car) / V2:(Single-unit truck (2-axle, 6-tires))  | V1: E / V2: E                                       | Cloudy             | 1700000212 / 1700000212 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  | 1326          | WASHINGTON ST CHERRY ST / WASHINGTON Rte 16 W   |
| 4409188      | NEWTON         | 04/20/2017 | Property damage only (none injured) | 3:16 PM    | No injury                         | 2                  | Local police       | 45-54                    | >84                    | D1: (Unknown) / D2: (Unknown)  | Daylight               | Sideswipe, same direction |                                 | Dry                          | 0                | 0                        | V1: Travelling straight ahead / V2: Travelling straight ahead   | V1:(Unknown heavy truck, cannot classify) / V2:(Passenger car)   | V1: W / V2: W                                       | Clear              | 1700000451 / 1700000451 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  |               | WASHINGTON ST CHERRY ST / WASHINGTON Rte 16 W   |
| 4414595      | NEWTON         | 07/24/2017 | Property damage only (none injured) | 8:10 AM    | No injury                         | 1                  | Local police       | 55-64                    | 55-64                  |  | Daylight               | Angle                     |                                 | Wet                          | 0                | 0                        | V1: Slowing or stopped in traffic   | V1:(Light truck(van, mini-van, pickup, sport utility))   | V1: S   | Cloudy/Rain        | 1700000844 / 1700000844 | V1:(Collision with cyclist (bicycle, tricycle, unicycle, pedal car))   |               | CHERRY ST / WASHINGTON ST                       |
| 4443050      | NEWTON         | 10/18/2017 | Property damage only (none injured) | 6:27 PM    | No injury                         | 2                  | Local police       | 21-24                    | 45-54                  | D1: (No improper driving)  | Dark - lighted roadway | Sideswipe, same direction |                                 | Dry                          | 0                | 0                        | V1: Travelling straight ahead / V2: Changing lanes  | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))  | V1: E / V2: E                                       | Clear              | 1700001219 / 1700001219 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  | 1354          | WASHINGTON ST                                   |
| 4463165      | NEWTON         | 11/13/2017 | Property damage only (none injured) | 5:55 PM    | No injury                         | 2                  | Local police       | 25-34                    | 35-44                  | D1: (No improper driving) / D2: (Failure to keep in proper lane or running off road)     | Dark - lighted roadway | Rear-end                  |                                 | Wet                          | 0                | 0                        | V1: Slowing or stopped in traffic / V2: Changing lanes  | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)  | V1: E / V2: E                                       | Rain               | 1700001322 / 1700001322 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  | 1354          | WASHINGTON ST                                   |
| 4473373      | NEWTON         | 12/25/2017 | Property damage only (none injured) | 5:53 PM    | No injury                         | 2                  | Local police       | 55-64                    | 55-64                  | D1: (No improper driving)  | Dark - lighted roadway | Rear-end                  |                                 | Slush                        | 0                | 0                        | V1: Slowing or stopped in traffic / V2: Travelling straight ahead                                     | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))  | V1: W / V2: W                                       | Snow               | 1700001506              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  |               | WASHINGTON STREET Rte 16 W                      |
| 4487933      | NEWTON         | 01/10/2018 | Property damage only (none injured) | 6:08 PM    | No injury                         | 2                  | Local police       | 55-64                    | 55-64                  | D2: (Other improper action)  | Dark - lighted roadway | Sideswipe, same direction |                                 | Sand, mud, dirt, oil, gravel | 0                | 0                        | V1: Parked / V2: Other  | V1:(Passenger car) / V2:(Passenger car)  | V1: Not Reported / V2: W                            | Clear              | 1800000050              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with parked motor vehicle)  | 1359          | WASHINGTON ST                                   |

1314 Washington Street Redevelopment

Crash Data

| Crash Number | City Town Name | Crash Date | Crash Severity                      | Crash Time | Max Injury Severity Reported          | Number of Vehicles | Police Agency Type | Age of Driver - Youngest Known | Age of Driver - Oldest Known | Driver Contributing Circumstances (All Drivers)  | Light Conditions       | Manner of Collision       | Non-Motorist Type (All Persons) | Road Surface Condition | Total Fatalities | Total Non-Fatal Injuries | Vehicle Actions Prior to Crash (All Vehicles)                  | Vehicle Configuration (All Vehicles)   | Vehicle Travel Directions (All Vehicles) | Weather Conditions | Crash Report IDs | Most Harmful Event (All Vehicles)  | Street Number | Roadway                           |
|--------------|----------------|------------|-------------------------------------|------------|---------------------------------------|--------------------|--------------------|--------------------------------|------------------------------|--|------------------------|---------------------------|---------------------------------|------------------------|------------------|--------------------------|--|--|--|--------------------|------------------|--|---------------|-----------------------------------|
| 4548255      | NEWTON         | 05/04/2018 | Property damage only (none injured) | 2:11 PM    | No injury                             | 1                  | Local police       | 45-54                          | 45-54                        | D1: (Unknown)  | Daylight               | Single vehicle crash      |                                 | Dry                    | 0                | 0                        | V1: Turning right  | V1:(Tractor/semi-trailer)  | V1: N                                    | Clear              | 1800000495       | V1:(Collision with light pole or other post/support)   |               | CHERRY STREET / WASHINGTON STREET |
| 4621092      | NEWTON         | 10/26/2018 | Property damage only (none injured) | 8:35 AM    | No injury                             | 2                  | Local police       | 35-44                          | 75-84                        | D1: (Unknown)  | Daylight               | Sideswipe, same direction |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Entering traffic lane      | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                      | V1: E / V2: E                            | Clear              | 1800001222       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  | 1354          | WASHINGTON ST                     |
| 4692793      | NEWTON         | 03/01/2019 | Non-fatal injury                    | 5:37 PM    | Non-fatal injury - Non-incapacitating | 3                  | Local police       | 35-44                          | 65-74                        | D1: (Failure to keep in proper lane or running off road),(Physical impairment) / D2: (No improper driving) | Dusk                   | Head-on                   |                                 | Dry                    | 0                | 2                        | V1: Travelling straight ahead / V2: Turning right / V3: Parked | V1:(Passenger car) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility)) | V1: E / V2: E / V3: U                    | Clear/Unknown      | 1900000222       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic) | 1354          | WASHINGTON ST                     |
| 4702227      | NEWTON         | 04/27/2019 | Property damage only (none injured) | 5:16 PM    | No Apparent Injury (O)                | 2                  | Local police       | 25-34                          | 55-64                        | D1: (No improper driving)  | Daylight               | Rear-end                  |                                 | Dry                    | 0                | 0                        | V1: Parked / V2: Backing                                       | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                      | V1: W / V2: W                            | Cloudy             | 1900000430       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with parked motor vehicle)  | 1349          | WASHINGTON ST                     |
| 4724466      | NEWTON         | 06/22/2019 | Property damage only (none injured) | 1:33 PM    | No Apparent Injury (O)                | 2                  | Local police       | 21-24                          | 25-34                        | D1: (No improper driving) / D2: (Unknown)  | Daylight               | Rear-to-rear              |                                 | Unknown                | 0                | 0                        | V1: Backing / V2: Backing                                      | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))                      | V1: N / V2: S                            | Clear              | 1900000641       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)  | 1349          | WASHINGTON ST                     |
| 4747790      | NEWTON         | 07/13/2019 | Property damage only (none injured) | 1:14 PM    | No Apparent Injury (O)                | 2                  | Local police       | >84                            | >84                          | D2: (Inattention)  | Daylight               | Sideswipe, same direction |                                 | Dry                    | 0                | 0                        | V1: Parked / V2: Entering traffic lane                         | V1:(Passenger car) / V2:(Passenger car)  | V1: W / V2: W                            | Clear              | 1900000718       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with parked motor vehicle)  | 1353          | WASHINGTON ST                     |
| 4784967      | NEWTON         | 11/13/2019 | Property damage only (none injured) | 9:37 PM    | No Apparent Injury (O)                | 2                  | Local police       | 35-44                          | 65-74                        | D1: (Failure to keep in proper lane or running off road),(Physical impairment) / D2: (No improper driving) | Dark - lighted roadway | Sideswipe, same direction |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Entering traffic lane      | V1:(Passenger car) / V2:(Passenger car)  | V1: W / V2: W                            | Clear              | 1900001170       | V1:(Collision with parked motor vehicle) / V2:(Collision with parked motor vehicle)  | 1351          | WASHINGTON ST                     |
| 4834703      | NEWTON         | 10/27/2019 | Property damage only (none injured) | 5:53 PM    | No Apparent Injury (O)                | 2                  | Local police       | 35-44                          | 35-44                        | D1: (Unknown)  | Dark - lighted roadway | Sideswipe, same direction |                                 | Wet                    | 0                | 0                        | V1: Turning left / V2: Turning right                           | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                      | V1: E / V2: W                            | Rain               | 1900001103       | V1:(Collision with motor vehicle in traffic) / V2:(Unknown)  |               | CHERRY ST / WASHINGTON ST         |

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Crash Data

| Crash Number | City Town Name | Crash Date | Crash Severity                      | Crash Time | Max Injury Severity Reported      | Number of Vehicles | Police Agency Type | Age of Driver - Youngest Known | Age of Driver - Oldest Known | Driver Contributing Circumstances (All Drivers)          | Light Conditions       | Manner of Collision       | Motorist Type (All Persons) | Road Surface Condition | Total Fatalities | Total Non-Fatal Injuries | Vehicle Actions Prior to Crash (All Vehicles)                     | Vehicle Configuration (All Vehicles)  | Vehicle Travel Directions (All Vehicles) | Weather Conditions | Crash Report IDs        | Most Harmful Event (All Vehicles)   | Street Number | Roadway                     |
|--------------|----------------|------------|-------------------------------------|------------|-----------------------------------|--------------------|--------------------|--------------------------------|------------------------------|--|------------------------|---------------------------|-----------------------------|------------------------|------------------|--------------------------|---|---|--|--------------------|-------------------------|---|---------------|-----------------------------|
| 4008914      | NEWTON         | 02/06/2015 | Property damage only (none injured) | 9:50 AM    | No injury                         | 2                  | Local police       | 35-44                          | 35-44                        | D1: (No improper driving)                                | Daylight               | Angle                     |                             | Ice                    | 0                | 0                        | V1: Travelling straight ahead / V2: Travelling straight ahead     | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                                     | V1: U / V2: U                            | Clear              | 1500000174              | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)     | 1321          | WASHINGTON ST               |
| 4016525      | NEWTON         | 02/22/2015 | Property damage only (none injured) | 1:55 PM    | No injury                         | 2                  | Local police       |                                |                              | D1: (Unknown)  | Daylight               | Angle                     |                             | Slush                  | 0                | 0                        | V1: Travelling straight ahead / V2: Parked                        | V1:(Passenger car) / V2:(Passenger car)   | V1: N / V2: N                            | Clear              | 1500000272              | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)     | 1321          | WASHINGTON ST               |
| 4080531      | NEWTON         | 08/22/2015 | Not Reported                        | 7:36 AM    | Not reported                      | 1                  | Local police       |                                |                              |  | Daylight               | Angle                     |                             | Dry                    | 0                | 0                        | V1: Parked  | V1:(Light truck(van, mini-van, pickup, sport utility))  | V1: Not Reported                         | Clear/Clear        | 1500000926              | V1:(Collision with motor vehicle in traffic)  | 1321          | WASHINGTON ST               |
| 4108102      | NEWTON         | 10/30/2015 | Property damage only (none injured) | 12:21 PM   | No injury                         | 2                  | Local police       | 55-64                          | 55-64                        | D1: (Inattention)  | Daylight               | Angle                     |                             | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Parked                        | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))                                     | V1: W / V2: Not Reported                 | Clear              | 1500001175              | V1:(Collision with parked motor vehicle) / V2:(Other)                                       | 1321          | WASHINGTON ST               |
| 4132226      | NEWTON         | 12/27/2015 | Property damage only (none injured) | 5:10 PM    | No injury                         | 2                  | Local police       | 65-74                          | 75-84                        | D1: (No improper driving) / D2: (Inattention)            | Dark - lighted roadway | Sideswipe, same direction |                             | Wet                    | 0                | 0                        | V1: Travelling straight ahead / V2: Parked                        | V1:(Passenger car) / V2:(Passenger car)   | V1: E / V2: E                            | Rain               | 1500001393              | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)     | 1309          | WASHINGTON ST Rte 16 E      |
| 4150208      | NEWTON         | 02/07/2016 | Not Reported                        | 10:06 AM   | Not Applicable                    | 2                  | Local police       |                                |                              | D1: (Unknown)  | Daylight               | Sideswipe, same direction |                             | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Not reported                  | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))                                     | V1: W / V2: Not Reported                 | Clear              | 1600000125              | V1:(Collision with pedestrian)  | 1309          | WASHINGTON ST               |
| 4181430      | NEWTON         | 04/09/2016 | Property damage only (none injured) | 11:31 AM   | No injury                         | 2                  | Local police       | 45-54                          | 55-64                        | D1: (No improper driving) / D2: (Inattention)            | Daylight               | Rear-end                  |                             | Dry                    | 0                | 0                        | V1: Slowing or stopped in traffic / V2: Travelling straight ahead | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                                     | V1: E / V2: E                            | Clear              | 1600000333 / 1600000333 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | HIGHLAND ST / WASHINGTON ST |
| 4215340      | NEWTON         | 06/09/2016 | Property damage only (none injured) | 1:22 PM    | No injury                         | 2                  | Local police       | 55-64                          | 75-84                        | D1: (No improper driving) / D2: (No improper driving)    | Daylight               | Rear-end                  |                             | Dry                    | 0                | 0                        | V1: Backing / V2: Slowing or stopped in traffic                   | V1:(Passenger car) / V2:(Passenger car)   | V1: W / V2: W                            | Clear              | 1600000572 / 1600000572 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) | 1321          | WASHINGTON ST               |
| 4224220      | NEWTON         | 06/18/2016 | Property damage only (none injured) | 4:02 PM    | No injury                         | 2                  | Local police       | 25-34                          | 25-34                        | D1: (Inattention)  | Daylight               | Angle                     |                             | Dry                    | 0                | 0                        | V1: Backing / V2: Parked  | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: S                                    | Clear              | 1600000600 / 1600000600 | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)     | 1321          | WASHINGTON ST               |
| 4231957      | NEWTON         | 08/02/2016 | Property damage only (none injured) | 6:01 PM    | No injury                         | 2                  | Local police       | 25-34                          | 25-34                        | D1: (Glare)  | Daylight               | Angle                     |                             | Dry                    | 0                | 0                        | V1: Backing / V2: Parked  | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: N / V2: E                            | Clear              | 1600000755 / 1600000755 | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)     | 1321          | WASHINGTON ST               |
| 4242447      | NEWTON         | 08/30/2016 | Non-fatal injury                    | 5:45 PM    | Non-fatal injury - Possible       | 1                  | Local police       | 75-84                          | 75-84                        | D1: (Inattention)  | Daylight               | Single vehicle crash      |                             | Dry                    | 0                | 1                        | V1: Travelling straight ahead                                     | V1:(Passenger car)  | V1: W                                    | Clear              | 1600000854 / 1600000854 | V1:(Collision with other movable object)  | 1326          | WASHINGTON ST               |
| 4300717      | NEWTON         | 11/18/2016 | Property damage only (none injured) | 4:16 PM    | No injury                         | 2                  | Local police       | 25-34                          | 25-34                        | D2: (Failure to keep in proper lane or running off road) | Daylight               | Sideswipe, same direction |                             | Dry                    | 0                | 0                        | V1: Parked / V2: Travelling straight ahead                        | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))                                     | V1: W / V2: W                            | Clear              | 1600001231 / 1600001231 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) | 1309          | WASHINGTON ST               |
| 4404010      | NEWTON         | 06/01/2017 | Non-fatal injury                    | 9:41 PM    | Non-fatal injury - Incapacitating | 2                  | Local police       | 21-24                          | 35-44                        |  | Dark - lighted roadway | Rear-end                  | P1: Pedestrian              | Dry                    | 0                | 1                        | V1: Parked / V2: Parked   | V1:(Other e.g. farm equipment) / V2:(Light truck(van, mini-van, pickup, sport utility))                         | V1: W / V2: W                            | Clear              | 1700000640 / 1700000640 | V1:(Collision with pedestrian) / V2:(Collision with motor vehicle in traffic)               | 1321          | WASHINGTON ST               |
| 4408327      | NEWTON         | 02/14/2017 | Property damage only (none injured) | 5:52 PM    | No injury                         | 2                  | Local police       | 65-74                          | 65-74                        | D1: (Inattention),(Unknown)                              | Dark - lighted roadway | Rear-end                  |                             | Wet                    | 0                | 0                        | V1: Backing / V2: Parked  | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))                                     |  | Clear              | 1700000201 / 1700000201 | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)     | 1321          | WASHINGTON ST               |
| 4423630      | NEWTON         | 08/31/2017 | Property damage only (none injured) | 8:32 AM    | No injury                         | 2                  | Local police       | 25-34                          | 45-54                        | D1: (No improper driving) / D2: (Unknown)                | Daylight               | Sideswipe, same direction |                             | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Turning right                 | V1:(Single-unit truck (2-axle, 6-tires)) / V2:(Light truck(van, mini-van, pickup, sport utility))               | V1: E / V2: S                            | Clear              | 1700001005 / 1700001005 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | WASHINGTON ST / HIGHLAND ST |
| 4450749      | NEWTON         | 10/19/2017 | Property damage only (none injured) | 1:06 AM    | No injury                         | 1                  | Local police       | 35-44                          | 35-44                        | D1: (Inattention)  | Dark - lighted roadway | Single vehicle crash      |                             | Dry                    | 0                | 0                        | V1: Travelling straight ahead                                     | V1:(Passenger car)  | V1: E                                    | Clear              | 1700001220 / 1700001220 | V1:(Collision with ditch)   | 1314          | WASHINGTON ST               |

1314 Washington Street Redevelopment

Crash Data

| Crash Number | City Town Name | Crash Date | Crash Severity                      | Crash Time | Max Injury Severity Reported          | Number of Vehicles | Police Agency Type | Age of Driver - Youngest Known | Age of Driver - Oldest Known | Driver Contributing Circumstances (All Drivers)                                      | Light Conditions       | Manner of Collision           | Non-Motorist Type (All Persons) | Road Surface Condition | Total Fatalities | Total Non-Fatal Injuries | Vehicle Actions Prior to Crash (All Vehicles)                     | Vehicle Configuration (All Vehicles)  | Vehicle Travel Directions (All Vehicles) | Weather Conditions                                 | Crash Report IDs | Most Harmful Event (All Vehicles)   | Street Number | Roadway                      |
|--------------|----------------|------------|-------------------------------------|------------|---------------------------------------|--------------------|--------------------|--------------------------------|------------------------------|--|------------------------|-------------------------------|---------------------------------|------------------------|------------------|--------------------------|---|---|--|--|------------------|---|---------------|------------------------------|
| 4495496      | NEWTON         | 01/17/2018 | Property damage only (none injured) | 2:38 PM    | No injury                             | 2                  | Local police       | 45-54                          | 55-64                        | D1: (No improper driving) / D2: (Inattention)  | Daylight               | Angle                         |                                 | Wet                    | 0                | 0                        | V1: Travelling straight ahead / V2: Changing lanes                | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                                     | V1: W / V2: W                            | Snow   | 1800000095       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) | 1326          | WASHINGTON ST                |
| 4529248      | NEWTON         | 04/18/2018 | Property damage only (none injured) | 7:06 AM    | No injury                             | 2                  | Local police       | 45-54                          | 45-54                        | D1: (Visibility obstructed)  | Daylight               | Sideswipe, same direction     |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Parked                        | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: W / V2: W                            | Clear  | 1800000438       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) | 1309          | WASHINGTON ST                |
| 4529261      | NEWTON         | 04/14/2018 | Property damage only (none injured) | 7:03 PM    | No injury                             | 2                  | Local police       | 65-74                          | 65-74                        | D1: (No improper driving)  | Daylight               | Rear-end                      |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Travelling straight ahead     | V1:(Passenger car) / V2:(Passenger car)   | V1: W / V2: W                            | Clear  | 1800000427       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | HIGHLAND ST / WASHINGTON ST  |
| 4568076      | NEWTON         | 06/27/2018 | Property damage only (none injured) | 7:48 AM    | No injury                             | 1                  | Local police       | 55-64                          | 55-64                        | D1: (No improper driving)  | Daylight               | Angle                         |                                 | Dry                    | 0                | 0                        | V1: Slowing or stopped in traffic                                 | V1:(Passenger car)  | V1: E                                    | Clear  | 1800000721       | V1:(Collision with motor vehicle in traffic)  |               | WASHINGTON STREET Rte 16 E / |
| 4620999      | NEWTON         | 10/10/2018 | Property damage only (none injured) | 9:15 AM    | No injury                             | 2                  | Local police       | 55-64                          | 55-64                        | D1: (Inattention)  | Daylight               | Angle                         |                                 | Dry                    | 0                | 0                        | V1: Backing / V2: Parked  | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))                                     | V1: E / V2: S                            | Clear  | 1800001136       | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)     | 1321          | WASHINGTON ST                |
| 4621004      | NEWTON         | 10/10/2018 | Non-fatal injury                    | 7:11 PM    | Non-fatal injury - Non-incapacitating | 2                  | Local police       | 25-34                          | 45-54                        | D1: (Unknown)  | Dark - lighted roadway | Sideswipe, same direction     |                                 | Dry                    | 0                | 1                        | V1: Travelling straight ahead / V2: Travelling straight ahead     | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                                     | V1: E / V2: E                            | Clear  | 1800001141       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | HIGHLAND ST / WASHINGTON ST  |
| 4621052      | NEWTON         | 10/17/2018 | Property damage only (none injured) | 2:40 PM    | No injury                             | 2                  | Local police       | 35-44                          | 35-44                        | D1: (No improper driving),(No improper driving)                                      | Daylight               | Sideswipe, opposite direction |                                 | Dry                    | 0                | 0                        | V1: Backing / V2: Parked  | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: U / V2: Reported but invalid         | Clear/Clear  | 1800001177       | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)     | 1321          | WASHINGTON ST                |
| 4628522      | NEWTON         | 10/27/2018 | Non-fatal injury                    | 8:18 PM    | Non-fatal injury - Non-incapacitating | 1                  | Local police       | 16-17                          | 16-17                        | D1: (Inattention)  | Dark - lighted roadway | Single vehicle crash          | P2: Pedestrian                  | Wet                    | 0                | 1                        | V1: Slowing or stopped in traffic                                 | V1:(Light truck(van, mini-van, pickup, sport utility))  | V1: W                                    | Rain   | 1800001232       | V1:(Collision with pedestrian)  | 1321          | WASHINGTON ST                |
| 4776735      | NEWTON         | 10/25/2019 | Property damage only (none injured) | 2:43 PM    | No Apparent Injury (O)                | 2                  | Local police       | 65-74                          | 65-74                        | D1: (No improper driving)  | Daylight               | Sideswipe, same direction     |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Parked                        | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: W / V2: S                            | Clear  | 1900001094       | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)     | 1321          | WASHINGTON ST                |
| 4776747      | NEWTON         | 10/29/2019 | Property damage only (none injured) | 7:16 PM    | No Apparent Injury (O)                | 2                  | Local police       | 45-54                          | 65-74                        | D1: (Failure to keep in proper lane or running off road) / D2: (No improper driving) | Dark - lighted roadway | Rear-end                      |                                 | Wet                    | 0                | 0                        | V1: Turning right / V2: Turning right                             | V1:(Passenger car) / V2:(Passenger car)   | V1: S / V2: S                            | Cloudy snow/sleet, hail (freezing rain or drizzle) | 1900001108       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | HIGHLAND ST / WASHINGTON ST  |
| 4793283      | NEWTON         | 12/01/2019 | Property damage only (none injured) | 7:16 PM    | No Apparent Injury (O)                | 2                  | Local police       | 18-20                          | 35-44                        | D1: (Failed to yield right of way) / D2: (No improper driving)                       | Dark - lighted roadway | Angle                         |                                 | Snow                   | 0                | 0                        | V1: Turning left / V2: Travelling straight ahead                  | V1:(Passenger car) / V2:(Passenger car)   | V1: S / V2: E                            |  | 1900001229       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | HIGHLAND ST / WASHINGTON ST  |
| 4799229      | NEWTON         | 12/06/2019 | Property damage only (none injured) | 2:16 PM    | No Apparent Injury (O)                | 2                  | Local police       | 45-54                          | 55-64                        | D1: (No improper driving)  | Daylight               | Sideswipe, same direction     |                                 | Wet                    | 0                | 0                        | V1: Parked / V2: Travelling straight ahead                        | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: W / V2: W                            | Cloudy/Snow  | 1900001254       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with parked motor vehicle)     | 1309          | WASHINGTON STREET Rte SR16   |
| 4799389      | NEWTON         | 12/20/2019 | Property damage only (none injured) | 1:14 PM    | No Apparent Injury (O)                | 2                  | Local police       | 18-20                          | 55-64                        | D1: (No improper driving) / D2: (Other improper action)                              | Daylight               | Angle                         |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Slowing or stopped in traffic | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))                                     | V1: W / V2: W                            | Clear  | 1900001317       | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) | 1309          | WASHINGTON ST                |



1314 Washington Street Redevelopment

Crash Data

| Crash Number | City Town Name | Crash Date | Crash Severity                      | Crash Time | Max Injury Severity Reported          | Number of Vehicles | Police Agency Type | Age of Driver - Youngest Known | Age of Driver - Oldest Known | Driver Contributing Circumstances (All Drivers)  | Light Conditions       | Manner of Collision       | Non-Motorist Type (All Persons) | Road Surface Condition | Total Fatalities | Total Non-Fatal Injuries | Vehicle Actions Prior to Crash (All Vehicles)                         | Vehicle Configuration (All Vehicles)  | Vehicle Travel Directions (All Vehicles) | Weather Conditions | Crash Report IDs        | Most Harmful Event (All Vehicles)   | Street Number | Roadway                      |
|--------------|----------------|------------|-------------------------------------|------------|---------------------------------------|--------------------|--------------------|--------------------------------|------------------------------|--|------------------------|---------------------------|---------------------------------|------------------------|------------------|--------------------------|---|---|--|--------------------|-------------------------|---|---------------|------------------------------|
| 4033700      | NEWTON         | 04/02/2015 | Non-fatal injury                    | 2:28 PM    | Non-fatal injury - Possible           | 1                  | Local police       | 65-74                          | 65-74                        | D1: (Operating vehicle in erratic, reckless, careless, negligent or aggressive manner) | Daylight               | Not reported              | P2: Pedestrian                  | Dry                    | 0                | 1                        | V1: Turning left  | V1:(Light truck(van, mini-van, pickup, sport utility))  | V1: W                                    | Clear              | 1500000436              | V1:(Collision with pedestrian)  |               | CHESTNUT ST / WASHINGTON ST  |
| 4040630      | NEWTON         | 05/09/2015 | Not Reported                        | 10:32 AM   | Not reported                          | 1                  | Local police       |                                |                              |  | Daylight               | Sideswipe, same direction |                                 | Dry                    | 0                | 0                        | V1: Parked  | V1:(Passenger car)  | V1: E                                    | Clear/Clear        | 1500000557              | V1:(Collision with motor vehicle in traffic)  | 1250          | WASHINGTON ST                |
| 4055898      | NEWTON         | 06/26/2015 | Non-fatal injury                    | 8:59 AM    | Non-fatal injury - Possible           | 2                  | Local police       | 21-24                          | 35-44                        | D1: (No improper driving) / D2: (No improper driving)                                  | Daylight               | Angle                     |                                 | Wet                    | 0                | 1                        | V1: Travelling straight ahead / V2: Entering traffic lane             | V1:(Passenger car) / V2:(Passenger car)   | V1: E / V2: N                            | Rain               | 1500000737              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) | 1250          | WASHINGTON ST                |
| 4140253      | NEWTON         | 01/18/2016 | Property damage only (none injured) | 4:05 PM    | No injury                             | 2                  | Local police       | 25-34                          | 35-44                        | D1: (No improper driving) / D2: (Failed to yield right of way)                         | Daylight               | Angle                     |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Unknown                           | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))                                     | V1: E / V2: E                            | Clear              | 1600000041 / 1600000041 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | CHESTNUT ST / WASHINGTON ST  |
| 4147465      | NEWTON         | 01/13/2016 | Property damage only (none injured) | 8:25 AM    | No injury                             | 2                  | Local police       | 35-44                          | 45-54                        | D1: (No improper driving) / D2: (Made an improper turn)                                | Daylight               | Sideswipe, same direction |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Turning right                     | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Bus (seats for 16 or more, including driver))      | V1: N / V2: N                            | Clear              | 1600000024 / 1600000024 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | CHESTNUT STREET / WASHINGTON |
| 4150226      | NEWTON         | 02/04/2016 | Property damage only (none injured) | 11:53 AM   | No injury                             | 1                  | Local police       |                                |                              |  | Daylight               | Rear-end                  |                                 | Dry                    | 0                | 0                        | V1: Backing   | V1:(Light truck(van, mini-van, pickup, sport utility))  | V1: N                                    | Clear              | 1600000100 / 1600000100 | V1:(Other)  | 1250          | WASHINGTON ST                |
| 4186047      | NEWTON         | 04/23/2016 | Property damage only (none injured) | 11:45 AM   | No injury                             | 2                  | Local police       | 25-34                          | 55-64                        | D1: (Inattention) / D2: (No improper driving)  | Daylight               | Rear-end                  |                                 | Wet                    | 0                | 0                        | V1: Travelling straight ahead / V2: Slowing or stopped in traffic     | V1:(Passenger car) / V2:(Passenger car)   | V1: N / V2: N                            | Rain               | 1600000379 / 1600000379 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | CHESTNUT ST / WASHINGTON ST  |
| 4408754      | NEWTON         | 07/17/2017 | Property damage only (none injured) | 12:51 PM   | No injury                             | 2                  | Local police       | 25-34                          | 75-84                        | D1: (Unknown) / D2: (Unknown)  | Daylight               | Angle                     |                                 | Dry                    | 0                | 0                        | V1: Turning left / V2: Travelling straight ahead                      | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                                     | V1: N / V2: E                            | Clear              | 1700000817 / 1700000817 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | CHESTNUT ST / WASHINGTON ST  |
| 4409178      | NEWTON         | 05/17/2017 | Property damage only (none injured) | 12:18 PM   | No injury                             | 2                  | Local police       | 35-44                          | 55-64                        | D1: (No improper driving) / D2: (No improper driving)                                  | Daylight               | Sideswipe, same direction |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Parked                            | V1:(Unknown heavy truck, cannot classify) / V2:(Tractor/semi-trailer)   | V1: W / V2: W                            | Clear              | 1700000566 / 1700000566 | V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)     | 1249          | WASHINGTON ST                |
| 4411242      | NEWTON         | 08/10/2017 | Property damage only (none injured) | 12:13 PM   | No injury                             | 2                  | Local police       | 35-44                          | 45-54                        | D1: (No improper driving) / D2: (Other improper action)                                | Daylight               | Angle                     |                                 | Dry                    | 0                | 0                        | V1: Parked / V2: Other  | V1:(Light truck(van, mini-van, pickup, sport utility))  | V1: S / V2: N                            | Clear              | 1700000912 / 1700000912 | V1:(Collision with parked motor vehicle) / V2:(Collision with parked motor vehicle)         | 1250          | WASHINGTON ST                |
| 4457395      | NEWTON         | 11/08/2017 | Property damage only (none injured) | 8:42 AM    | No injury                             | 2                  | Local police       | 25-34                          | 35-44                        | D1: (No improper driving) / D2: (Inattention)  | Daylight               | Angle                     |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Entering traffic lane             | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: E / V2: N                            | Clear              | 1700001295 / 1700001295 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) | 1251          | WASHINGTON ST                |
| 4463171      | NEWTON         | 11/18/2017 | Property damage only (none injured) | 5:00 PM    | No injury                             | 2                  | Local police       |                                |                              |  | Dark - lighted roadway | Angle                     |                                 | Wet                    | 0                | 0                        | V1: Travelling straight ahead / V2: Turning left                      | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                                     | V1: E / V2: S                            | Rain               | 1700001347              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | CHESTNUT ST / WASHINGTON ST  |
| 4484939      | NEWTON         | 01/13/2018 | Property damage only (none injured) | 8:27 PM    | No injury                             | 1                  | Local police       |                                |                              |  | Dark - lighted roadway | Sideswipe, same direction |                                 | Dry                    | 0                | 0                        | V1: Parked  | V1:(Light truck(van, mini-van, pickup, sport utility))  | V1: W                                    | Clear              | 1800000082              | V1:(Collision with motor vehicle in traffic)  | 1251          | WASHINGTON ST                |
| 4493860      | NEWTON         | 01/10/2018 | Non-fatal injury                    | 5:14 PM    | Non-fatal injury - Non-incapacitating | 1                  | Local police       |                                |                              |  | Daylight               | Single vehicle crash      | P1: Pedestrian                  | Slush                  | 0                | 1                        | V1: Turning left  | V1:(Light truck(van, mini-van, pickup, sport utility))  | V1: S                                    | Clear              | 1800000048              | V1:(Collision with pedestrian)  |               | WASHINGTON STREET / CHESTNUT |
| 4499347      | NEWTON         | 02/02/2018 | Unknown                             | 7:38 AM    | Not reported                          | 2                  | Local police       |                                |                              |  | Daylight               | Angle                     |                                 | Wet                    | 0                | 0                        | V1: Parked / V2: Backing  | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: Reported but invalid / V2: N         | Clear              | 1800000154              | V1:(Collision with parked motor vehicle) / V2:(Collision with parked motor vehicle)         | 1250          | WASHINGTON ST                |
| 4548269      | NEWTON         | 05/09/2018 | Property damage only (none injured) | 12:58 PM   | No injury                             | 2                  | Local police       | 18-20                          | 18-20                        | D1: (No improper driving)  | Daylight               | Rear-end                  |                                 | Dry                    | 0                | 0                        | V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: W / V2: W                            | Clear              | 1800000514              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) | 1251          | WASHINGTON ST                |

1314 Washington Street Redevelopment

Crash Data

| Crash Number  | City Town Name | Crash Date | Crash Severity                      | Crash Time | Max Injury Severity Reported          | Number of Vehicles | Police Agency Type | Age of Driver - Youngest Known | Age of Driver - Oldest Known | Driver Contributing Circumstances (All Drivers)                                      | Light Conditions           | Manner of Collision  | Non-Motorist Type (All Persons) | Road Surface Condition | Total Fatalities | Total Non-Fatal Injuries | Vehicle Actions Prior to Crash (All Vehicles)        | Vehicle Configuration (All Vehicles)  | Vehicle Travel Directions (All Vehicles) | Weather Conditions | Crash Report IDs        | Most Harmful Event (All Vehicles)   | Street Number | Roadway                     |
|---|----------------|------------|-------------------------------------|------------|---------------------------------------|--------------------|--------------------|--------------------------------|------------------------------|--|----------------------------|----------------------|---------------------------------|------------------------|------------------|--------------------------|--|---|--|--------------------|-------------------------|---|---------------|-----------------------------|
| <b>Washington Street at Chestnut Street (continued)</b> |                |            |                                     |            |                                       |                    |                    |                                |                              |  |                            |                      |                                 |                        |                  |                          |  |   |  |                    |                         |   |               |                             |
| 4568202   | NEWTON         | 07/16/2018 | Property damage only (none injured) | 3:48 PM    | No injury                             | 2                  | Local police       | 25-34                          | 25-34                        | D1: (No improper driving)  | Daylight                   | Angle                |                                 | Dry                    | 0                | 0                        | V1: Slowing or stopped in traffic / V2: Backing      | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                                     | V1: E / V2: N                            | Clear              | 1800000807              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) | 1250          | WASHINGTON ST               |
| 4589282   | NEWTON         | 08/16/2018 | Property damage only (none injured) | 11:27 AM   | No injury                             | 1                  | Local police       | >84                            | >84                          | D1: (Inattention)  | Daylight                   | Single vehicle crash |                                 | Dry                    | 0                | 0                        | V1: Slowing or stopped in traffic                    | V1:(Passenger car)  | V1: N                                    | Clear              | 1800000924              | V1:(Collision with other movable object)  | 1             | CHESTNUT ST                 |
| 4645804   | NEWTON         | 12/18/2018 | Property damage only (none injured) | 1:47 PM    | No injury                             | 2                  | Local police       | 65-74                          | 65-74                        | D1: (Unknown)  | Daylight                   | Angle                |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Turning left     | V1:(Passenger car) / V2:(Passenger car)   | V1: E / V2: S                            | Clear              | 1800001444              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | CHESTNUT ST / WASHINGTON ST |
| 4758628   | NEWTON         | 08/10/2019 | Property damage only (none injured) | 11:00 AM   | No Apparent Injury (O)                | 2                  | Local police       | 21-24                          | 35-44                        | D1: (No improper driving) / D2: (No improper driving)                                | Daylight                   | Angle                |                                 | Dry                    | 0                | 0                        | V1: Turning left / V2: Travelling straight ahead     | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: S / V2: W                            | Clear              | 1900000826              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | CHESTNUT ST / WASHINGTON ST |
| <b>Highland Street at Davis Street</b>                  |                |            |                                     |            |                                       |                    |                    |                                |                              |  |                            |                      |                                 |                        |                  |                          |  |   |  |                    |                         |   |               |                             |
| 4300687   | NEWTON         | 11/15/2016 | Non-fatal injury                    | 5:09 PM    | Non-fatal injury - Possible           | 1                  | Local police       | 45-54                          | 45-54                        | D1: (Inattention)  | Dark - lighted roadway     | Single vehicle crash | P3: Pedestrian                  | Wet                    | 0                | 1                        | V1: Turning left                                     | V1:(Passenger car)  | V1: S                                    | Rain/Cloudy        | 1600001209 / 1600001209 | V1:(Collision with pedestrian)  |               | DAVIS ST / HIGHLAND ST      |
| 4408355   | NEWTON         | 03/13/2017 | Property damage only (none injured) | 8:40 AM    | No injury                             | 2                  | Local police       | 45-54                          | 75-84                        | D1: (No improper driving) / D2: (Failure to keep in proper lane or running off road) | Daylight                   | Angle                |                                 | Dry                    | 0                | 0                        | V1: Turning right / V2: Turning left                 | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))                                     | V1: W / V2: S                            | Clear              | 1700000300 / 1700000300 | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | DAVIS ST / HIGHLAND ST      |
| 4470725   | NEWTON         | 12/08/2017 | Non-fatal injury                    | 3:59 PM    | Non-fatal injury - Non-incapacitating | 2                  | Local police       | 21-24                          | 21-24                        | D1: (No improper driving) / D2: (Distracted)   | Daylight                   | Head-on              |                                 | Dry                    | 0                | 2                        | V1: Slowing or stopped in traffic / V2: Turning left | V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))                                     | V1: W / V2: E                            | Clear              | 1700001428              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | DAVIS ST / HIGHLAND ST      |
| <b>Chestnut Street at Davis Street</b>                  |                |            |                                     |            |                                       |                    |                    |                                |                              |  |                            |                      |                                 |                        |                  |                          |  |   |  |                    |                         |   |               |                             |
| 4016504   | NEWTON         | 02/18/2015 | Property damage only (none injured) | 6:14 PM    | No injury                             | 2                  | Local police       | 75-84                          | 75-84                        | D2: (Unknown)  | Dark - roadway not lighted | Rear-end             |                                 | Slush                  | 0                | 0                        | V1: Parked / V2: Overtaking/passing                  | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)                                     | V1: N / V2: N                            | Cloudy             | 1500000250              | V1:(Collision with parked motor vehicle) / V2:(Collision with parked motor vehicle)         |               | CHESTNUT ST / DAVIS ST      |
| 4038605   | NEWTON         | 04/16/2015 | Property damage only (none injured) | 10:05 AM   | No injury                             | 2                  | Local police       | 65-74                          | >84                          | D1: (Inattention),(Inattention) / D2: (No improper driving),(No improper driving)    | Daylight                   | Rear-end             |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Turning left     | V1:(Passenger car) / V2:(Passenger car)   | V1: N / V2: N                            | Clear/Clear        | 1500000480              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | CHESTNUT ST / DAVIS ST      |
| 4758332   | NEWTON         | 09/03/2019 | Property damage only (none injured) | 10:04 AM   | No Apparent Injury (O)                | 2                  | Local police       | 21-24                          | 45-54                        |  | Daylight                   | Angle                |                                 | Dry                    | 0                | 0                        | V1: Travelling straight ahead / V2: Turning left     | V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) | V1: S / V2: E                            | Clear              | 1900000907              | V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) |               | CHESTNUT ST / DAVIS ST      |

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## Historic Traffic Growth



Traffic Volume Comparison - 2019 to Previous Studies

Turninv Movement Count Volumes

| Intersection   | Weekday Morning Peak Hour Volumes |                   |              |
|--|-----------------------------------|-------------------|--------------|
|  | 2015-2016 <sup>a</sup>            | 2019 <sup>b</sup> | Change       |
| Washington Street at Cherry Street                       | 1,601                             | 1,825             | 14.0%        |
| Washington Street at Highland Street                     | 1,957                             | 1,855             | -5.2%        |
| Washington Street at Waltham Street and Watertown Street | 1,815                             | 1,695             | -6.6%        |
| Washington Street at Chestnut Street                     | 1,164                             | 1,290             | 10.8%        |
| Washington Street at Lowell Avenue                       | 1,810                             | 1,870             | 3.3%         |
| Washington Street at Walnut Street                       | 2,410                             | 2,140             | -11.2%       |
| <b>Total</b>   | <b>10,757</b>                     | <b>10,675</b>     | <b>-0.8%</b> |

| Intersection   | Weekday Evening Peak Hour Volumes |                   |              |
|--|-----------------------------------|-------------------|--------------|
|  | 2015-2016 <sup>a</sup>            | 2019 <sup>b</sup> | Change       |
| Washington Street at Cherry Street                       | 1,969                             | 1,900             | -3.5%        |
| Washington Street at Highland Street                     | 1,916                             | 1,820             | -5.0%        |
| Washington Street at Waltham Street and Watertown Street | 1,697                             | 1,630             | -3.9%        |
| Washington Street at Chestnut Street                     | 1,300                             | 1,205             | -7.3%        |
| Washington Street at Lowell Avenue                       | 2,135                             | 2,005             | -6.1%        |
| Washington Street at Walnut Street                       | 2,515                             | 2,285             | -9.1%        |
| <b>Total</b>   | <b>11,532</b>                     | <b>10,845</b>     | <b>-6.0%</b> |

a - 2015 counts from *The West Newton Enhancements Project Traffic Analysis Technical Memo* by HDR. 2016 counts from the *Washington Place Mixed Use Transit Oriented Development* by VHB.

b - 2019 counts conducted by VHB in April 2019

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## Site-Specific Traffic Growth

**SITE-SPECIFIC VOLUMES**

Project Name: West Newton - Santander  
 Project No: 15636.00  
 Location: Newton, MA  
 Date: March 2022

| INTERSECTION   | MOVEMENT | From TIA (VHB)                             |    | From TIA (VHB)          |    | From TIA (VHB)                 |    | From TIA (MDM)     |    | From ITE Projections   |    | From ITE Projections  |    | From TIA (VHB) |    | From TIA (VHB)   |    | TOTAL BACKGROUND DEVELOPMENTS |    |
|--|----------|--|----|-------------------------|----|--------------------------------|----|--------------------|----|------------------------|----|-----------------------|----|----------------|----|------------------|----|-------------------------------|----|
|  |          | 283 Melrose Street (Turtle Lane Playhouse) |    | Riverside Redevelopment |    | Russian School (Austin Street) |    | 131 Rumford Avenue |    | 15-21 Lexington Avenue |    | 967 Washington Street |    | Dunstan East   |    | 275 Grove Street |    | AM                            | PM |
|  |          | AM   | PM | AM                      | PM | AM                             | PM | AM                 | PM | AM                     | PM | AM                    | PM | AM             | PM | AM               | PM | AM                            | PM |
| <b>1. WASHINGTON STREET AT ELM STREET</b>                        |          |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Washington Street  | WB T     |  | 2  | 12                      | 7  |                                | 14 |                    |    |                        |    | 4                     | 2  | 33             | 18 |                  |    | 49                            | 43 |
| Washington Street  | WB R     | 1  | 1  |                         |    |                                |    |                    |    |                        |    |                       |    | 2              | 1  |                  |    | 3                             | 2  |
| Washington Street  | NB L     |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Washington Street  | NB T     |  |    |                         |    |                                |    |                    | 5  | 1                      | 2  |                       |    |                |    |                  |    | 1                             | 7  |
| Elm Street   | NB R     | 3  | 2  | 10                      | 15 |                                | 14 |                    |    |                        |    | 1                     | 4  | 26             | 26 |                  |    | 40                            | 61 |
| Elm Street   | SB R     |  |    |                         |    |                                |    |                    | 5  | 2                      | 2  |                       |    |                |    |                  |    | 2                             | 7  |
| <b>2. WASHINGTON STREET AT CHERRY STREET</b>                     |          |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Washington Street  | EB L     |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Washington Street  | EB T     | 3  | 2  | 10                      | 15 |                                | 14 |                    |    |                        |    | 1                     | 4  | 26             | 26 |                  |    | 40                            | 61 |
| Washington Street  | WB T     | 1  | 3  | 12                      | 7  |                                | 14 |                    |    |                        |    | 4                     | 2  | 35             | 20 |                  |    | 52                            | 46 |
| Washington Street  | WB R     | 1  | 1  |                         |    |                                |    |                    | 9  |                        | 2  |                       |    | 9              | 5  |                  |    | 10                            | 17 |
| Cherry Street  | SB L     | 1  | 2  |                         |    |                                | 4  |                    | 16 | 2                      | 1  |                       |    | 10             | 10 |                  |    | 13                            | 33 |
| Cherry Street  | SB R     |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| <b>3. WASHINGTON STREET AT HIGHLAND STREET</b>                   |          |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Washington Street  | EB T     | 4  | 4  | 10                      | 15 |                                | 18 |                    | 10 | 2                      | 1  | 1                     | 4  | 36             | 35 |                  |    | 53                            | 87 |
| Washington Street  | EB R     |  |    |                         |    |                                |    |                    | 6  |                        |    |                       |    |                |    |                  |    |                               | 6  |
| Washington Street  | WB L     |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Washington Street  | WB T     | 2  | 4  | 12                      | 7  |                                | 14 |                    | 4  |                        | 2  | 4                     | 2  | 44             | 24 |                  |    | 62                            | 57 |
| Highland Street  | NB L     |  |    |                         |    |                                |    |                    | 5  |                        |    |                       |    |                |    |                  |    |                               | 5  |
| Highland Street  | NB R     |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| <b>4. WASHINGTON STREET AT WALTHAM STREET / WATERTOWN STREET</b> |          |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Washington Street  | EB L     |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Washington Street  | EB BL    | 2  | 2  | 5                       | 7  |                                |    |                    | 5  |                        |    |                       |    | 11             | 8  |                  |    | 18                            | 22 |
| Washington Street  | EB T     | 2  | 2  | 5                       | 8  |                                | 18 |                    | 5  | 2                      | 1  | 1                     | 4  | 26             | 27 |                  |    | 36                            | 65 |
| Washington Street  | WB T     | 1  | 2  | 6                       | 4  |                                | 14 |                    | 2  |                        | 2  | 4                     | 2  | 33             | 19 |                  |    | 44                            | 45 |
| Washington Street  | WB R     |  |    |                         |    |                                | 4  |                    | 3  |                        |    |                       |    | 1              | 1  |                  |    | 1                             | 8  |
| Washington Street  | WB HR    |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Waltham Street   | SB R     |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Watertown Street   | SWB R    | 1  | 2  | 6                       | 3  |                                |    |                    | 2  |                        |    |                       |    | 10             | 6  |                  |    | 17                            | 13 |
| Watertown Street   | SWB HR   |  |    |                         |    |                                |    |                    | 3  |                        |    |                       |    | 1              | 1  |                  |    | 1                             | 4  |
| <b>5. WASHINGTON STREET AT CHESTNUT STREET</b>                   |          |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |
| Washington Street  | EB T     | 2  | 2  | 5                       | 8  |                                | 10 |                    | 5  | 2                      | 1  | 1                     | 4  | 26             | 27 |                  |    | 36                            | 57 |
| Washington Street  | EB R     |  |    |                         |    |                                | 8  |                    |    |                        |    |                       |    |                |    |                  |    |                               | 8  |
| Washington Street  | WB L     |  |    |                         |    |                                |    |                    |    |                        |    | 1                     | 1  | 12             | 6  |                  |    | 13                            | 7  |
| Washington Street  | WB T     | 1  | 2  | 6                       | 4  |                                | 10 |                    | 5  |                        | 2  | 4                     | 2  | 35             | 20 |                  |    | 46                            | 45 |
| Chestnut Street  | NB L     |  |    |                         |    |                                | 8  |                    |    |                        |    |                       |    |                |    |                  |    |                               | 8  |
| Chestnut Street  | NB R     |  |    |                         |    |                                |    |                    |    |                        |    | 1                     | 1  | 13             | 9  |                  |    | 14                            | 10 |

**SITE-SPECIFIC VOLUMES**

Project Name: West Newton - Santander  
 Project No: 15636.00  
 Location: Newton, MA  
 Date: March 2022

| INTERSECTION  | MOVEMENT   | From TIA (VHB)                             |    | From TIA (VHB)          |    | From TIA (VHB)                 |    | From TIA (MDM)     |    | From ITE Projections   |    | From ITE Projections  |    | From TIA (VHB) |    | From TIA (VHB)   |    | TOTAL BACKGROUND DEVELOPMENTS |    |                                |
|---|--|--|----|-------------------------|----|--------------------------------|----|--------------------|----|------------------------|----|-----------------------|----|----------------|----|------------------|----|-------------------------------|----|--------------------------------|
|   |  | 283 Melrose Street (Turtle Lane Playhouse) |    | Riverside Redevelopment |    | Russian School (Austin Street) |    | 131 Rumford Avenue |    | 15-21 Lexington Avenue |    | 967 Washington Street |    | Dunstan East   |    | 275 Grove Street |    |                               |    |                                |
|   |  | AM   | PM | AM                      | PM | AM                             | PM | AM                 | PM | AM                     | PM | AM                    | PM | AM             | PM | AM               | PM | AM                            | PM |                                |
| 6. HIGHLAND STREET AT SITE DRIVEWAY<br>Site Driveway<br>Highland Street<br>Highland Street                        | WB L<br>WB R<br>NB T<br>NB R<br>SB L<br>SB T   |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    | 5<br>6                         |
| 7. HIGHLAND STREET AT CHURCH NORTH DRIVEWAY<br>Church North Driveway<br>Highland Street<br>Highland Street        | EB L<br>EB R<br>NB L<br>NB T<br>SB T<br>SB R   |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    | 5<br>6                         |
| 8. HIGHLAND STREET AT DAVIS STREET<br>Church South Driveway<br>Davis Street<br>Highland Street<br>Highland Street | EB L<br>EB T<br>EB R<br>WB L<br>WB T<br>WB R<br>NB L<br>NB T<br>NB R<br>SB L<br>SB T<br>SB R |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    | 5<br>6                         |
| 9. DAVIS STREET AT SITE DRIVEWAY<br>Davis Street<br>Davis Street<br>Site Driveway                                 | EB L<br>EB T<br>WB T<br>WB R<br>SB L<br>SB R   |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    |                                |
| 10. CHESTNUT STREET AT DAVIS STREET<br>Davis Street<br>Chestnut Street<br>Chestnut Street                         | EB U<br>EB L<br>EB R<br>NB L<br>NB T<br>SB U<br>SB T<br>SB R                                 |  |    |                         |    |                                |    |                    |    |                        |    |                       |    |                |    |                  |    |                               |    | 8<br>8<br>14<br>18<br>13<br>15 |

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## Trip Generation

**Trip Generation Summary**

| LUC<br>SIZE               | Previous Use        |                                 |                            |                      |                   |                            |                 |     | Full Build               |                                 |                               |                  |                            |                            |                     |     |             |                                 |                               |                  | Net New                    |                      |                   |                            |                 |             |                  |                     |                       |               |                 |  |  |  |
|---------------------------|---------------------|---------------------------------|----------------------------|----------------------|-------------------|----------------------------|-----------------|-----|--------------------------|---------------------------------|-------------------------------|------------------|----------------------------|----------------------------|---------------------|-----|-------------|---------------------------------|-------------------------------|------------------|----------------------------|----------------------|-------------------|----------------------------|-----------------|-------------|------------------|---------------------|-----------------------|---------------|-----------------|--|--|--|
|                           | Retail <sup>2</sup> |                                 |                            |                      |                   |                            |                 |     | Residential <sup>1</sup> |                                 |                               |                  |                            |                            | Retail <sup>2</sup> |     |             |                                 |                               |                  |                            |                      |                   |                            |                 |             |                  |                     |                       |               |                 |  |  |  |
|                           | Gross Trips         | Gross Person Trips <sup>3</sup> | Vehicle Trips <sup>7</sup> | Pass-by <sup>8</sup> | Net Vehicle Trips | Transit Trips <sup>9</sup> | Walk/Bike Trips |     | Gross Trips              | Gross Person Trips <sup>3</sup> | Internal Capture <sup>4</sup> | Net Person Trips | Vehicle Trips <sup>5</sup> | Transit Trips <sup>6</sup> | Walk/Bike Trips     |     | Gross Trips | Gross Person Trips <sup>3</sup> | Internal Capture <sup>4</sup> | Net Person Trips | Vehicle Trips <sup>7</sup> | Pass-by <sup>8</sup> | Net Vehicle Trips | Transit Trips <sup>9</sup> | Walk/Bike Trips | Gross Trips | Net Person Trips | Total Vehicle Trips | Net New Vehicle Trips | Transit Trips | Walk/Bike Trips |  |  |  |
|                           |                     | 1.82                            | 1.82                       |                      |                   |                            |                 |     |                          | 1.18                            |                               |                  | 1.12                       |                            |                     |     |             | 1.82                            |                               |                  | 1.82                       |                      |                   |                            |                 |             |                  |                     |                       |               |                 |  |  |  |
| Weekday Daily             |                     |                                 |                            | 25%                  |                   |                            |                 |     |                          |                                 |                               |                  |                            |                            |                     |     |             |                                 |                               |                  | 25%                        |                      |                   |                            |                 |             |                  |                     |                       |               |                 |  |  |  |
| Enter                     | 215                 | 391                             | 193                        | 48                   | 145               | 20                         | 20              | 97  | 114                      | 21                              | 93                            | 66               | 12                         | 7                          | 106                 | 193 | 17          | 176                             | 87                            | 22               | 65                         | 9                    | 9                 | 203                        | 269             | 153         | 22               | 131                 | 21                    | 16            |                 |  |  |  |
| Exit                      | 215                 | 391                             | 193                        | 48                   | 145               | 20                         | 20              | 97  | 114                      | 17                              | 97                            | 68               | 13                         | 8                          | 106                 | 193 | 21          | 172                             | 85                            | 22               | 63                         | 9                    | 9                 | 203                        | 269             | 153         | 22               | 131                 | 22                    | 17            |                 |  |  |  |
| Total                     | 430                 | 782                             | 386                        | 96                   | 290               | 40                         | 40              | 194 | 228                      | 38                              | 190                           | 134              | 25                         | 15                         | 212                 | 386 | 38          | 348                             | 172                           | 44               | 128                        | 18                   | 18                | 406                        | 538             | 306         | 44               | 262                 | 43                    | 33            |                 |  |  |  |
| Weekday Morning Peak Hour |                     |                                 |                            | 25%                  |                   |                            |                 |     |                          |                                 |                               |                  |                            |                            |                     |     |             |                                 |                               |                  | 25%                        |                      |                   |                            |                 |             |                  |                     |                       |               |                 |  |  |  |
| Enter                     | 11                  | 20                              | 10                         | 2                    | 8                 | 1                          | 1               | 2   | 3                        | -                               | 3                             | 2                | -                          | -                          | 5                   | 9   | -           | 9                               | 4                             | 1                | 3                          | -                    | -                 | 7                          | 12              | 6           | 1                | 5                   | -                     | -             |                 |  |  |  |
| Exit                      | 8                   | 15                              | 7                          | 2                    | 5                 | 1                          | 1               | 8   | 9                        | -                               | 9                             | 6                | 1                          | 1                          | 4                   | 7   | -           | 7                               | 3                             | 1                | 2                          | -                    | -                 | 12                         | 16              | 9           | 1                | 8                   | 1                     | 1             |                 |  |  |  |
| Total                     | 19                  | 35                              | 17                         | 4                    | 13                | 2                          | 2               | 10  | 12                       | -                               | 12                            | 8                | 1                          | 1                          | 9                   | 16  | -           | 16                              | 7                             | 2                | 5                          | -                    | -                 | 19                         | 28              | 15          | 2                | 13                  | 1                     | 1             |                 |  |  |  |
| Weekday Evening Peak Hour |                     |                                 |                            | 40%                  |                   |                            |                 |     |                          |                                 |                               |                  |                            |                            |                     |     |             |                                 |                               |                  | 40%                        |                      |                   |                            |                 |             |                  |                     |                       |               |                 |  |  |  |
| Enter                     | 33                  | 60                              | 30                         | 12                   | 18                | 3                          | 3               | 14  | 16                       | 7                               | 9                             | 6                | 1                          | 1                          | 20                  | 36  | 4           | 32                              | 16                            | 6                | 10                         | 2                    | 2                 | 34                         | 41              | 22          | 6                | 16                  | 3                     | 3             |                 |  |  |  |
| Exit                      | 33                  | 60                              | 30                         | 12                   | 18                | 3                          | 3               | 9   | 10                       | 4                               | 6                             | 4                | 1                          | -                          | 20                  | 36  | 7           | 29                              | 14                            | 6                | 8                          | 1                    | 1                 | 29                         | 35              | 18          | 6                | 12                  | 2                     | 1             |                 |  |  |  |
| Total                     | 66                  | 120                             | 60                         | 24                   | 36                | 6                          | 6               | 23  | 26                       | 11                              | 15                            | 10               | 2                          | 1                          | 40                  | 72  | 11          | 61                              | 30                            | 12               | 18                         | 3                    | 3                 | 63                         | 76              | 40          | 12               | 28                  | 5                     | 4             |                 |  |  |  |

1 Trip generation estimate based on ITE LUC 221 (Mid-Rise Residential), using regression equations.  
2 Trip generation estimate based on ITE LUC 822 (Strip Retail Plaza), using regression equation for weekday PM peak, average rates for weekday daily and weekday morning  
3 VOR rates for gross person trips based on Summary of Travel Trends, 2017 National Household Travel Survey, USDOT FHA  
4 Internal capture rates based on NCHRP Report 684  
5 Residential VOR rates based on US Census Bureau, 2013-2017 American Community Survey, City of Newton. National data used for retail due to lack of local data  
6 Residential transit credits applied based on US Census Bureau, 2013-2017 American Community Survey, City of Newton  
7 Retail VOR rates based on Summary of Travel Trends, 2017 National Household Travel Survey, USDOT FHA due to lack of local data  
8 Retail pass-by rates based on ITE LUC 821 (Shopping Plaza), 25-percent pass-by rate assumed for time periods with no available data  
9 Retail transit credits applied based local traffic studies due to lack of local data.

**MODE SHARE**

| Mode Share  | Existing | Full Build Mode Splits   |                     |
|-------------|----------|--------------------------|---------------------|
|             |          | Residential <sup>1</sup> | Retail <sup>2</sup> |
| Drive       | n/a      | 79%                      | 90%                 |
| Transit     | n/a      | 13%                      | 5%                  |
| Walk / Bike | n/a      | 8%                       | 5%                  |
| Total       | 0%       | 100%                     | 100%                |

<sup>1</sup> Based on US Census Bureau, 2013-2017 American Community Survey, City of Newton

<sup>2</sup> Based on Summary of Travel Trends, 2017 National Household Travel Survey, USDOT FHA and adjusted to account for local conditions based on previously submitted traffic studies.

**VOR**

|                     | ITE Raw Vehicle Trips to Person Trips <sup>1</sup> | Local Person Trips to Vehicle Trips <sup>2</sup> |
|---------------------|--|--|
| Residents           | 1.18   | 1.12   |
| Retail <sup>3</sup> | 1.82   | 1.82   |

<sup>1</sup> Based on Summary of Travel Trends, 2017 National Household Travel Survey, USDOT FHA

<sup>2</sup> Based on US Census Bureau, 2013-2017 American Community Survey, City of Newton

<sup>3</sup> National data used for both conversions due to lack of local data

## SHARED TRIPS <sup>1</sup>

### RETAIL - RESIDENTIAL

| WEEKDAY DAILY |     |     |          |     |     |             |
|---------------|-----|-----|----------|-----|-----|-------------|
| RETAIL        | %   | #   | BALANCED | #   | %   | RESIDENTIAL |
| EXIT ->       | 11% | 193 | 21       | 114 | 33% | -> ENTER    |
| ENTER <-      | 9%  | 193 | 17       | 114 | 38% | <- EXIT     |

| TOTAL SHARED TRIPS - WEEKDAY DAILY |       |      |       |
|------------------------------------|-------|------|-------|
|                                    | ENTER | EXIT | TOTAL |
| RETAIL                             | 17    | 21   | 38    |
| RES                                | 21    | 17   | 38    |
| TOTAL                              | 38    | 38   | 76    |

| WEEKDAY MORNING |     |   |          |   |    |             |
|-----------------|-----|---|----------|---|----|-------------|
| RETAIL          | %   | # | BALANCED | # | %  | RESIDENTIAL |
| EXIT ->         | 14% | 7 | 0        | 3 | 2% | -> ENTER    |
| ENTER <-        | 17% | 9 | 0        | 9 | 1% | <- EXIT     |

| TOTAL SHARED TRIPS - WEEKDAY MORNING |       |      |       |
|--------------------------------------|-------|------|-------|
|                                      | ENTER | EXIT | TOTAL |
| RETAIL                               | 0     | 0    | 0     |
| RES                                  | 0     | 0    | 0     |
| TOTAL                                | 0     | 0    | 0     |

| WEEKDAY EVENING |     |    |          |    |     |             |
|-----------------|-----|----|----------|----|-----|-------------|
| RETAIL          | %   | #  | BALANCED | #  | %   | RESIDENTIAL |
| EXIT ->         | 26% | 36 | 7        | 16 | 46% | -> ENTER    |
| ENTER <-        | 10% | 36 | 4        | 10 | 42% | <- EXIT     |

| TOTAL SHARED TRIPS - WEEKDAY EVENING |       |      |       |
|--------------------------------------|-------|------|-------|
|                                      | ENTER | EXIT | TOTAL |
| RETAIL                               | 4     | 7    | 11    |
| RES                                  | 7     | 4    | 11    |
| TOTAL                                | 11    | 11   | 22    |

<sup>1</sup> Weekday morning and evening internal capture rates based on NCHRP Report 684. Weekday daily internal capture rates based on ITE Trip Generation Handbook, 2nd Edition



**ITE TRIP GENERATION WORKSHEET**  
 (11th Edition, Updated 2021)

**LANDUSE:** Multifamily Housing (Mid-Rise) - Not Close to Rail Transit: 4-10 stories  
**LANDUSE CODE:** 221 Independent Variable --- Number of Dwelling Units  
**SETTING/LOCATION:** General Urban/Suburban  
**JOB NAME:** 1314 Washington Street Redevelopment 50 units **Proposed**  
**JOB NUMBER:** 15636.00

**WEEKDAY**

| RATES:                | # Studies | R^2  | Total Trip Ends |      |      | Independent Variable Range |     |      | Directional Distribution |      |
|-----------------------|-----------|------|-----------------|------|------|----------------------------|-----|------|--------------------------|------|
|                       |           |      | Average         | Low  | High | Average                    | Low | High | Enter                    | Exit |
| DAILY                 | 11        | 0.93 | 4.54            | 3.76 | 5.40 | 201                        | 60  | 330  | 50%                      | 50%  |
| AM PEAK (ADJACENT ST) | 30        | 0.91 | 0.37            | 0.15 | 0.53 | 173                        | 26  | 490  | 23%                      | 77%  |
| PM PEAK (ADJACENT ST) | 31        | 0.91 | 0.39            | 0.19 | 0.57 | 169                        | 26  | 490  | 61%                      | 39%  |

| TRIPS:                |  | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-----------------------|--|------------|-------|------|---------------|-------|------|
|                       |  | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY                 |  | 228        | 114   | 114  | 194           | 97    | 97   |
| AM PEAK (ADJACENT ST) |  | 19         | 4     | 14   | 10            | 2     | 8    |
| PM PEAK (ADJACENT ST) |  | 20         | 12    | 8    | 23            | 14    | 9    |

**SATURDAY**

| RATES:            | # Studies | R^2  | Total Trip Ends |      |      | Independent Variable Range |     |      | Directional Distribution |      |
|-------------------|-----------|------|-----------------|------|------|----------------------------|-----|------|--------------------------|------|
|                   |           |      | Average         | Low  | High | Average                    | Low | High | Enter                    | Exit |
| DAILY             | 5         | 0.91 | 4.57            | 4.03 | 5.31 | 250                        | 140 | 330  | 50%                      | 50%  |
| PEAK OF GENERATOR | 5         | 0.92 | 0.39            | 0.34 | 0.43 | 250                        | 140 | 330  | 51%                      | 49%  |

| TRIPS:            |  | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-------------------|--|------------|-------|------|---------------|-------|------|
|                   |  | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY             |  | 230        | 115   | 115  | 250           | 125   | 125  |
| PEAK OF GENERATOR |  | 20         | 10    | 10   | 20            | 10    | 10   |

**SUNDAY**

| RATES:            | # Studies | R^2  | Total Trip Ends |      |      | Independent Variable Range |     |      | Directional Distribution |      |
|-------------------|-----------|------|-----------------|------|------|----------------------------|-----|------|--------------------------|------|
|                   |           |      | Average         | Low  | High | Average                    | Low | High | Enter                    | Exit |
| DAILY             | 5         | 0.85 | 3.77            | 3.06 | 4.24 | 250                        | 140 | 330  | 50%                      | 50%  |
| PEAK OF GENERATOR | 5         | 0.79 | 0.32            | 0.26 | 0.42 | 250                        | 140 | 330  | 55%                      | 45%  |

| TRIPS:            |  | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-------------------|--|------------|-------|------|---------------|-------|------|
|                   |  | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY             |  | 190        | 95    | 95   | 202           | 101   | 101  |
| PEAK OF GENERATOR |  | 16         | 9     | 7    | 34            | 18    | 15   |

**ITE TRIP GENERATION WORKSHEET**  
 (11th Edition, Updated 2021)

**LANDUSE:** Strip Retail Plaza (<40k)  
**LANDUSE CODE:** 822 Independent Variable ---  
**SETTING/LOCATION:** General Urban/Suburban  
**JOB NAME:** 1314 Washington Street Redevelopment **FLOOR AREA (KSF):** 3.873 **Proposed**  
**JOB NUMBER:** 15636.00

**WEEKDAY**

| RATES:                | # Studies | R^2  | Total Trip Ends |       |       | Independent Variable Range |     |      | Directional Distribution |      |
|-----------------------|-----------|------|-----------------|-------|-------|----------------------------|-----|------|--------------------------|------|
|                       |           |      | Average         | Low   | High  | Average                    | Low | High | Enter                    | Exit |
| DAILY                 | 4         | 0.96 | 54.45           | 47.86 | 65.07 | 19                         | 9   | 35   | 50%                      | 50%  |
| AM PEAK (ADJACENT ST) | 5         | 0.57 | 2.36            | 1.60  | 3.73  | 18                         | 9   | 35   | 60%                      | 40%  |
| PM PEAK (ADJACENT ST) | 25        | 0.56 | 6.59            | 2.81  | 15.20 | 21                         | 3   | 39   | 50%                      | 50%  |

| TRIPS:                |  | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-----------------------|--|------------|-------|------|---------------|-------|------|
|                       |  | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY                 |  | 212        | 106   | 106  | 394           | 197   | 197  |
| AM PEAK (ADJACENT ST) |  | 9          | 5     | 4    | 15            | 9     | 6    |
| PM PEAK (ADJACENT ST) |  | 26         | 13    | 13   | 40            | 20    | 20   |

**SATURDAY**

| RATES:            | # Studies | R^2 | Total Trip Ends |      |       | Independent Variable Range |     |      | Directional Distribution |      |
|-------------------|-----------|-----|-----------------|------|-------|----------------------------|-----|------|--------------------------|------|
|                   |           |     | Average         | Low  | High  | Average                    | Low | High | Enter                    | Exit |
| DAILY             | --        | --  | --              | --   | --    | --                         | --  | --   | --                       | --   |
| PEAK OF GENERATOR | 12        | --  | 6.57            | 1.88 | 14.23 | 27                         | 8   | 39   | 51%                      | 49%  |

| TRIPS:            |  | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-------------------|--|------------|-------|------|---------------|-------|------|
|                   |  | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY             |  | --         | --    | --   | --            | --    | --   |
| PEAK OF GENERATOR |  | 25         | 13    | 12   | --            | --    | --   |

**SUNDAY**

| RATES:            | # Studies | R^2 | Total Trip Ends |     |      | Independent Variable Range |     |      | Directional Distribution |      |
|-------------------|-----------|-----|-----------------|-----|------|----------------------------|-----|------|--------------------------|------|
|                   |           |     | Average         | Low | High | Average                    | Low | High | Enter                    | Exit |
| DAILY             | --        | --  | --              | --  | --   | --                         | --  | --   | --                       | --   |
| PEAK OF GENERATOR | --        | --  | --              | --  | --   | --                         | --  | --   | --                       | --   |

| TRIPS:            |  | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-------------------|--|------------|-------|------|---------------|-------|------|
|                   |  | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY             |  | --         | --    | --   | --            | --    | --   |
| PEAK OF GENERATOR |  | --         | --    | --   | --            | --    | --   |

**ITE TRIP GENERATION WORKSHEET**  
 (11th Edition, Updated 2021)

**LANDUSE:** Strip Retail Plaza (<40k)  
**LANDUSE CODE:** 822 Independent Variable ---  
**SETTING/LOCATION:** General Urban/Suburban  
**JOB NAME:** 1314 Washington Street Redevelopment **FLOOR AREA (KSF):** 7.887 **Existing**  
**JOB NUMBER:** 15636.00

**WEEKDAY**

| RATES:                | # Studies | R^2  | Total Trip Ends |       |       | Independent Variable Range |     |      | Directional Distribution |      |
|-----------------------|-----------|------|-----------------|-------|-------|----------------------------|-----|------|--------------------------|------|
|                       |           |      | Average         | Low   | High  | Average                    | Low | High | Enter                    | Exit |
| DAILY                 | 4         | 0.96 | 54.45           | 47.86 | 65.07 | 19                         | 9   | 35   | 50%                      | 50%  |
| AM PEAK (ADJACENT ST) | 5         | 0.57 | 2.36            | 1.60  | 3.73  | 18                         | 9   | 35   | 60%                      | 40%  |
| PM PEAK (ADJACENT ST) | 25        | 0.56 | 6.59            | 2.81  | 15.20 | 21                         | 3   | 39   | 50%                      | 50%  |

| TRIPS:                |  | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-----------------------|--|------------|-------|------|---------------|-------|------|
|                       |  | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY                 |  | 430        | 215   | 215  | 564           | 282   | 282  |
| AM PEAK (ADJACENT ST) |  | 19         | 11    | 8    | 25            | 15    | 10   |
| PM PEAK (ADJACENT ST) |  | 52         | 26    | 26   | 66            | 33    | 33   |

**SATURDAY**

| RATES:            | # Studies | R^2 | Total Trip Ends |      |       | Independent Variable Range |     |      | Directional Distribution |      |
|-------------------|-----------|-----|-----------------|------|-------|----------------------------|-----|------|--------------------------|------|
|                   |           |     | Average         | Low  | High  | Average                    | Low | High | Enter                    | Exit |
| DAILY             | --        | --  | --              | --   | --    | --                         | --  | --   | --                       | --   |
| PEAK OF GENERATOR | 12        | --  | 6.57            | 1.88 | 14.23 | 27                         | 8   | 39   | 51%                      | 49%  |

| TRIPS:            |  | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-------------------|--|------------|-------|------|---------------|-------|------|
|                   |  | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY             |  | --         | --    | --   | --            | --    | --   |
| PEAK OF GENERATOR |  | 52         | 27    | 25   | --            | --    | --   |

**SUNDAY**

| RATES:            | # Studies | R^2 | Total Trip Ends |     |      | Independent Variable Range |     |      | Directional Distribution |      |
|-------------------|-----------|-----|-----------------|-----|------|----------------------------|-----|------|--------------------------|------|
|                   |           |     | Average         | Low | High | Average                    | Low | High | Enter                    | Exit |
| DAILY             | --        | --  | --              | --  | --   | --                         | --  | --   | --                       | --   |
| PEAK OF GENERATOR | --        | --  | --              | --  | --   | --                         | --  | --   | --                       | --   |

| TRIPS:            |  | BY AVERAGE |       |      | BY REGRESSION |       |      |
|-------------------|--|------------|-------|------|---------------|-------|------|
|                   |  | Total      | Enter | Exit | Total         | Enter | Exit |
| DAILY             |  | --         | --    | --   | --            | --    | --   |
| PEAK OF GENERATOR |  | --         | --    | --   | --            | --    | --   |

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## Trip Distribution

**Home to Work  
Live in Newton**

| Workplace<br><br>City/Town | Count <sup>1</sup> | Adjustment<br>Percentage <sup>2</sup> | Adjusted<br>Count | Percent of<br>Total | Route Distribution          |  |                                       |                             |  |   |       | Cumulative Total            |  |                                       |                             |  |   |               |
|----------------------------|--------------------|---------------------------------------|-------------------|---------------------|-----------------------------|--|---------------------------------------|-----------------------------|--|---|-------|-----------------------------|--|---------------------------------------|-----------------------------|--|---|---------------|
|                            |                    |                                       |                   |                     | Route 16<br>to/from<br>West | & Cherry<br>Street<br>to/from<br>North | Waltham<br>Street<br>to/from<br>North | Route 16<br>to/from<br>East | Washingto<br>n Street<br>to/from<br>East | Street &<br>Highland<br>Street<br>to/from | Total | Route 16<br>to/from<br>West | & Cherry<br>Street<br>to/from<br>North | Waltham<br>Street<br>to/from<br>North | Route 16<br>to/from<br>East | Washingto<br>n Street<br>to/from<br>East | Street &<br>Highland<br>Street<br>to/from | Total         |
| Boston city                | 12,720             | 0.5                                   | 6,360             | 23.8%               | 80%                         |  |                                       |                             | 15%                                      | 5%  | 100%  | 19.0%                       | 0.0%                                   | 0.0%                                  | 0.0%                        | 3.6%                                     | 1.2%                                      | 23.8%         |
| Newton city                | 11,950             | 0.5                                   | 5,975             | 22.3%               | 10%                         | 5%                                     | 5%                                    | 10%                         | 15%                                      | 55%                                       | 100%  | 2.2%                        | 1.1%                                   | 1.1%                                  | 2.2%                        | 3.4%                                     | 12.3%                                     | 22.3%         |
| Cambridge city             | 3,050              | 1                                     | 3,050             | 11.4%               | 30%                         |  |                                       | 30%                         | 40%                                      |   | 100%  | 3.4%                        | 0.0%                                   | 0.0%                                  | 3.4%                        | 4.6%                                     | 0.0%                                      | 11.4%         |
| Waltham city               | 2,230              | 1                                     | 2,230             | 8.3%                |                             | 75%                                    | 25%                                   |                             |  |   | 100%  | 0.0%                        | 6.3%                                   | 2.1%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 8.3%          |
| Wellesley town             | 925                | 1                                     | 925               | 3.5%                | 100%                        |  |                                       |                             |  |   | 100%  | 3.5%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 3.5%          |
| Watertown Town city        | 750                | 1                                     | 750               | 2.8%                |                             |  |                                       | 100%                        |  |   | 100%  | 0.0%                        | 0.0%                                   | 0.0%                                  | 2.8%                        | 0.0%                                     | 0.0%                                      | 2.8%          |
| Framingham town            | 745                | 1                                     | 745               | 2.8%                | 100%                        |  |                                       |                             |  |   | 100%  | 2.8%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 2.8%          |
| Brookline town             | 745                | 1                                     | 745               | 2.8%                |                             |  |                                       |                             | 20%                                      | 80%                                       | 100%  | 0.0%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.6%                                     | 2.2%                                      | 2.8%          |
| Needham town               | 610                | 1                                     | 610               | 2.3%                | 75%                         |  |                                       |                             |  | 25%                                       | 100%  | 1.7%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.6%                                      | 2.3%          |
| Burlington town            | 460                | 1                                     | 460               | 1.7%                | 15%                         | 85%                                    |                                       |                             |  |   | 100%  | 0.3%                        | 1.5%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 1.7%          |
| Lexington town             | 450                | 1                                     | 450               | 1.7%                | 15%                         | 85%                                    |                                       |                             |  |   | 100%  | 0.3%                        | 1.4%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 1.7%          |
| Quincy city                | 420                | 1                                     | 420               | 1.6%                | 100%                        |  |                                       |                             |  |   | 100%  | 1.6%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 1.6%          |
| Natick town                | 375                | 1                                     | 375               | 1.4%                | 100%                        |  |                                       |                             |  |   | 100%  | 1.4%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 1.4%          |
| Malden city                | 330                | 1                                     | 330               | 1.2%                | 90%                         |  |                                       |                             | 10%                                      |   | 100%  | 1.1%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.1%                                     | 0.0%                                      | 1.2%          |
| Worcester city             | 320                | 1                                     | 320               | 1.2%                | 100%                        |  |                                       |                             |  |   | 100%  | 1.2%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 1.2%          |
| Lowell city                | 280                | 1                                     | 280               | 1.0%                | 20%                         | 80%                                    |                                       |                             |  |   | 100%  | 0.2%                        | 0.8%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 1.0%          |
| Woburn city                | 280                | 1                                     | 280               | 1.0%                | 30%                         | 70%                                    |                                       |                             |  |   | 100%  | 0.3%                        | 0.7%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 1.0%          |
| Weston town                | 260                | 1                                     | 260               | 1.0%                | 5%                          | 95%                                    |                                       |                             |  |   | 100%  | 0.0%                        | 0.9%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 1.0%          |
| Dedham town                | 255                | 1                                     | 255               | 1.0%                | 100%                        |  |                                       |                             |  |   | 100%  | 1.0%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 1.0%          |
| Marlborough city           | 235                | 1                                     | 235               | 0.9%                | 100%                        |  |                                       |                             |  |   | 100%  | 0.9%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 0.9%          |
| Wayland town               | 205                | 1                                     | 205               | 0.8%                | 10%                         | 90%                                    |                                       |                             |  |   | 100%  | 0.1%                        | 0.7%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 0.8%          |
| Medford city               | 180                | 1                                     | 180               | 0.7%                | 35%                         |  |                                       | 25%                         | 40%                                      |   | 100%  | 0.2%                        | 0.0%                                   | 0.0%                                  | 0.2%                        | 0.3%                                     | 0.0%                                      | 0.7%          |
| Braintree Town city        | 180                | 1                                     | 180               | 0.7%                | 100%                        |  |                                       |                             |  |   | 100%  | 0.7%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 0.7%          |
| Billerica town             | 175                | 1                                     | 175               | 0.7%                | 20%                         | 80%                                    |                                       |                             |  |   | 100%  | 0.1%                        | 0.5%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 0.7%          |
| Belmont town               | 165                | 1                                     | 165               | 0.6%                |                             |  |                                       | 100%                        |  |   | 100%  | 0.0%                        | 0.0%                                   | 0.0%                                  | 0.6%                        | 0.0%                                     | 0.0%                                      | 0.6%          |
| Canton town                | 165                | 1                                     | 165               | 0.6%                | 100%                        |  |                                       |                             |  |   | 100%  | 0.6%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 0.6%          |
| Concord town               | 160                | 1                                     | 160               | 0.6%                | 20%                         | 80%                                    |                                       |                             |  |   | 100%  | 0.1%                        | 0.5%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 0.6%          |
| Norwood town               | 160                | 1                                     | 160               | 0.6%                | 100%                        |  |                                       |                             |  |   | 100%  | 0.6%                        | 0.0%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 0.6%          |
| Wilmington town            | 155                | 1                                     | 155               | 0.6%                | 30%                         | 70%                                    |                                       |                             |  |   | 100%  | 0.2%                        | 0.4%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 0.6%          |
| Bedford town               | 145                | 1                                     | 145               | 0.5%                | 20%                         | 80%                                    |                                       |                             |  |   | 100%  | 0.1%                        | 0.4%                                   | 0.0%                                  | 0.0%                        | 0.0%                                     | 0.0%                                      | 0.5%          |
| <b>Totals</b>              | <b>39,080</b>      |                                       | <b>26,745</b>     | <b>100.0%</b>       |                             |  |                                       |                             |  |   |       | <b>43.6%</b>                | <b>15.3%</b>                           | <b>3.2%</b>                           | <b>9.2%</b>                 | <b>12.4%</b>                             | <b>16.3%</b>                              | <b>100.0%</b> |
|                            |                    |                                       |                   |                     |                             |  |                                       |                             |  |   |       | <b>44.0%</b>                | <b>15.0%</b>                           | <b>3.0%</b>                           | <b>9.0%</b>                 | <b>12.0%</b>                             | <b>17.0%</b>                              | <b>100.0%</b> |

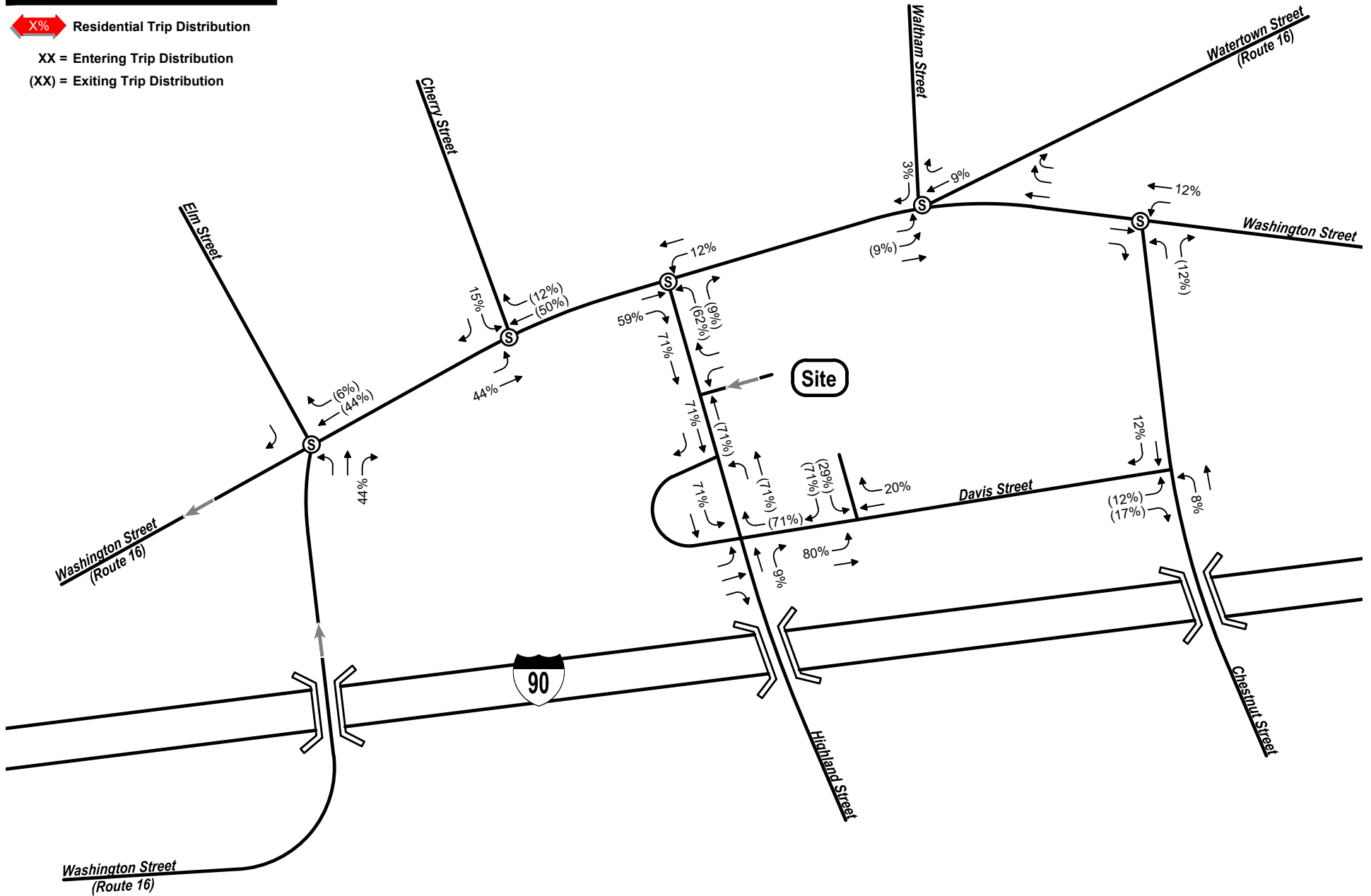
1 Commuting flow data based on the US Census Bureau Journey to Work data (2012-2016) for the City of Newton

2 Adjustments were made to some communities based on the likelihood that people who work in those communities would opt to live closer to their place of employment or closer to transit

**X%** Residential Trip Distribution

XX = Entering Trip Distribution

(XX) = Exiting Trip Distribution



Not to Scale

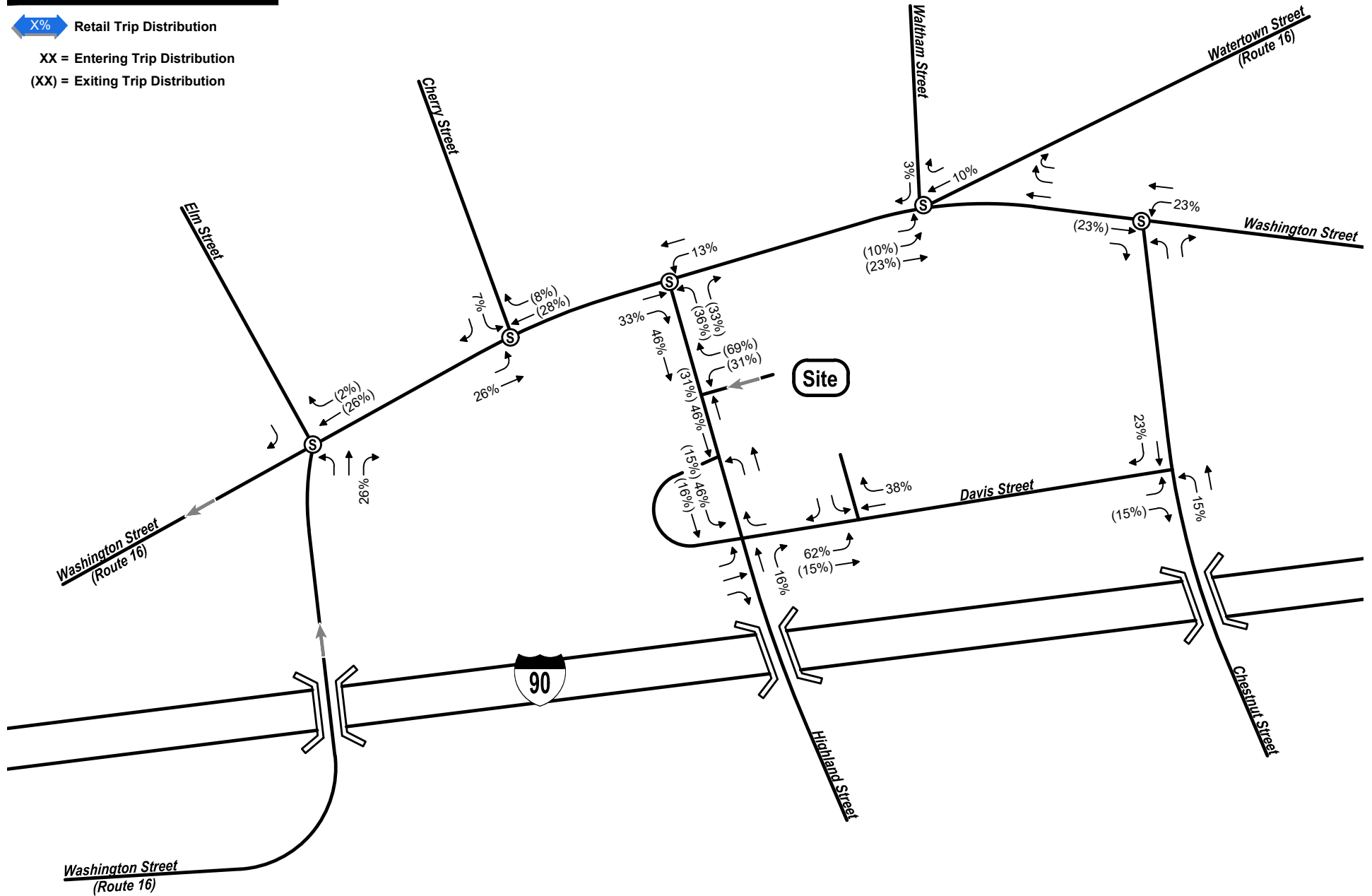


Residential Trip Distribution

**1314 Washington Street Redevelopment  
Newton, Massachusetts**

**Retail Trip Distribution**

XX = Entering Trip Distribution  
 (XX) = Exiting Trip Distribution



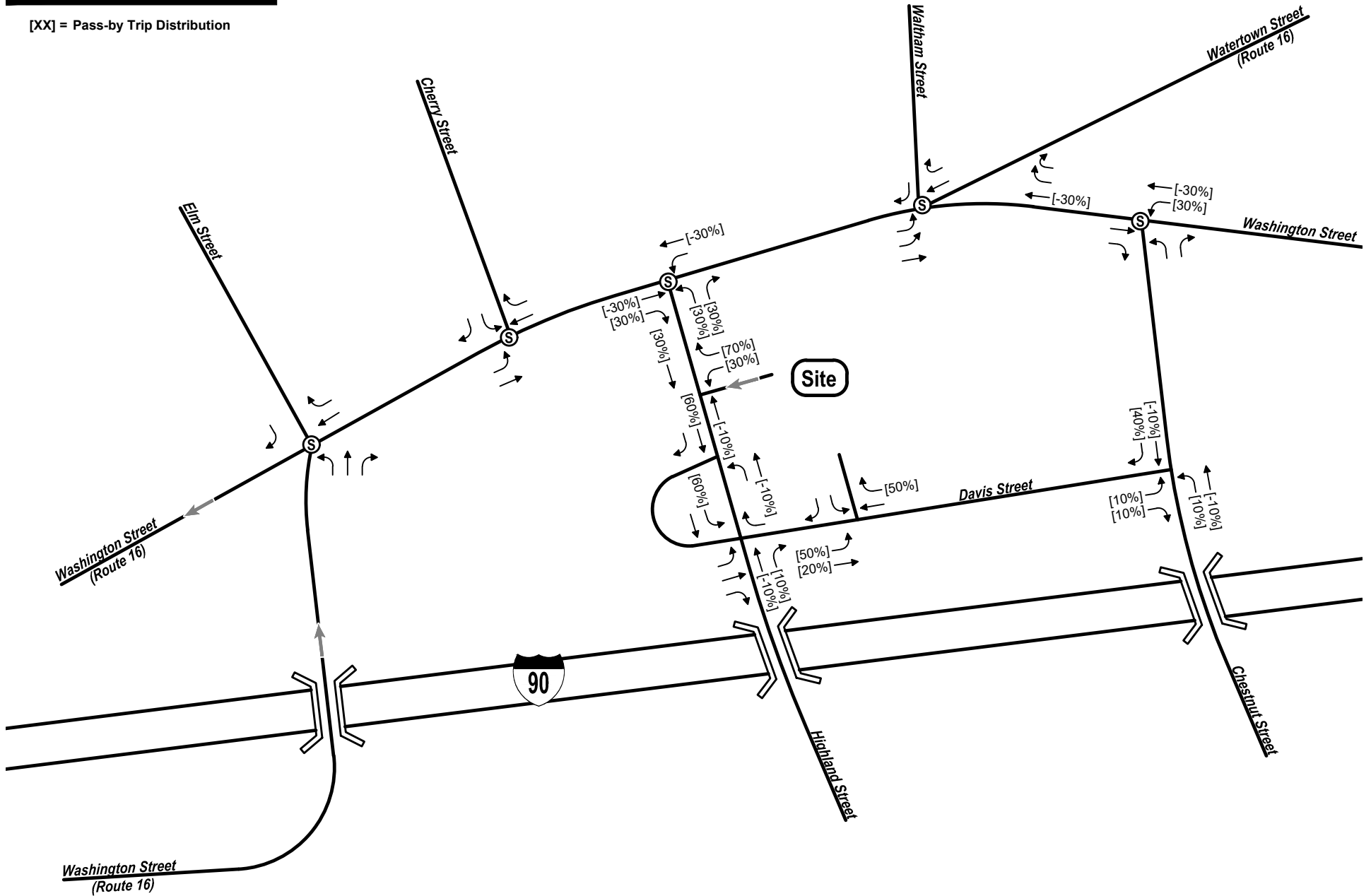
Not to Scale




Retail Trip Distribution

**1314 Washington Street Redevelopment  
 Newton, Massachusetts**

[XX] = Pass-by Trip Distribution



 Not to Scale



Retail Pass-by Trip Distribution

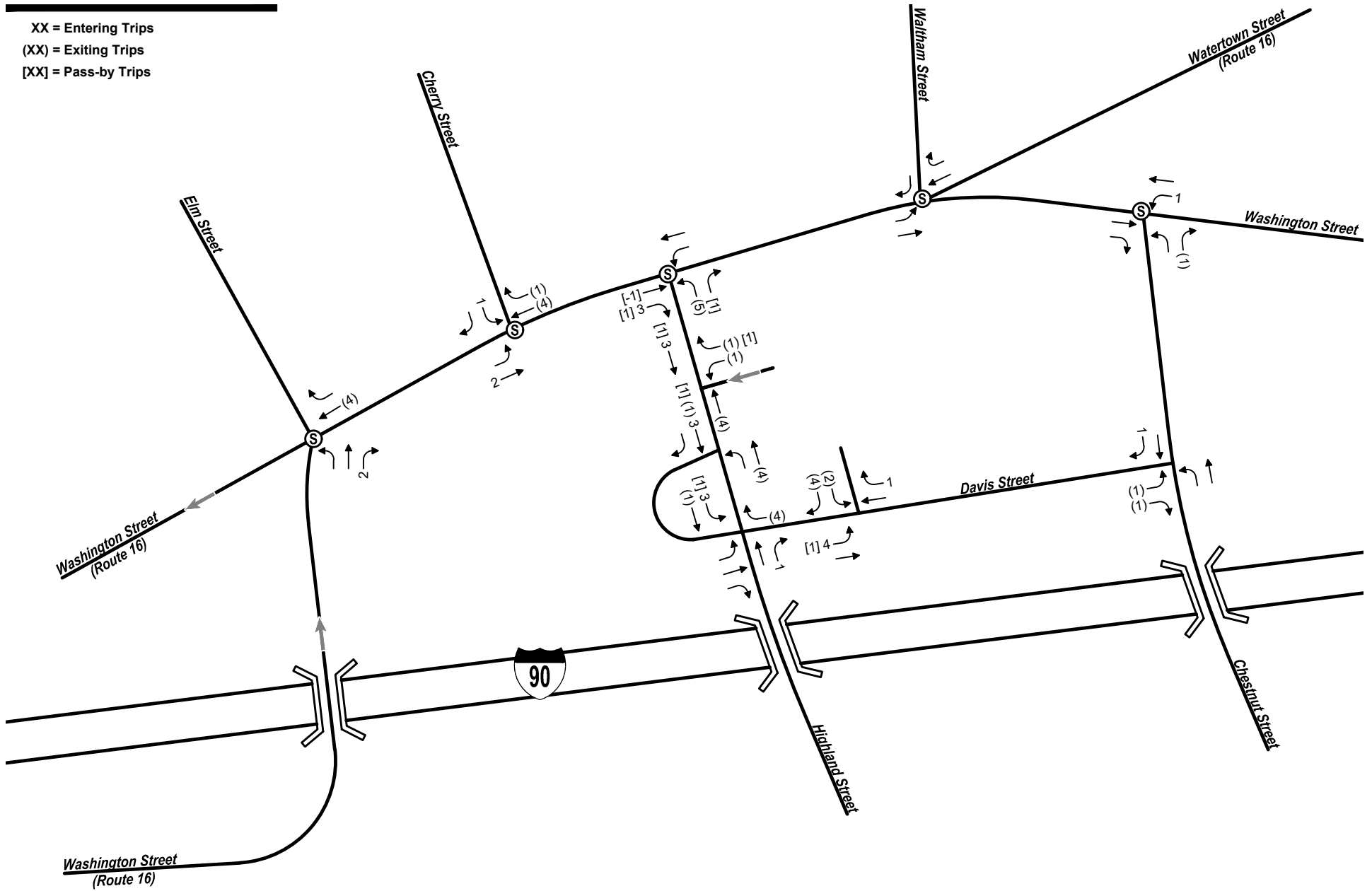
**1314 Washington Street Redevelopment  
Newton, Massachusetts**




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## Site-Generated Traffic Volume Networks

XX = Entering Trips  
 (XX) = Exiting Trips  
 [XX] = Pass-by Trips

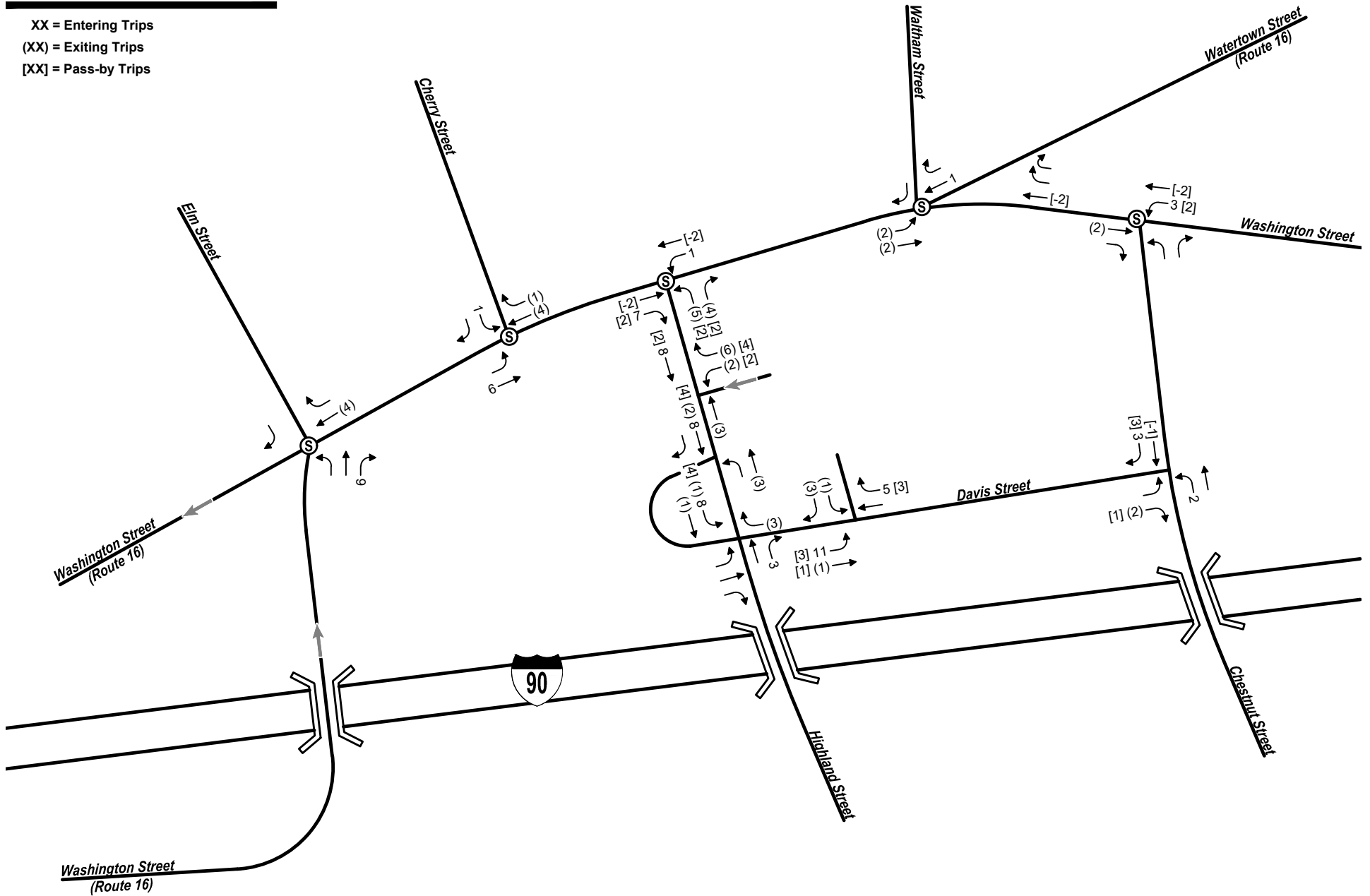



 Not to Scale



Site-Generated Traffic Volumes  
 Weekday Morning Peak Hour  
**1314 Washington Street Redevelopment**  
 Newton, Massachusetts

XX = Entering Trips  
 (XX) = Exiting Trips  
 [XX] = Pass-by Trips



 Not to Scale



Site-Generated Traffic Volumes  
 Weekday Evening Peak Hour  
**1314 Washington Street Redevelopment**  
 Newton, Massachusetts

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## Synchro Capacity Analyses

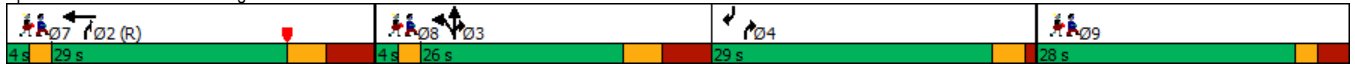


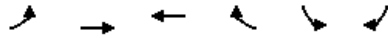
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL   | NBT   | NBR    | SBL  | SBT  | SBR   | Ø7   | Ø8   | Ø9   |
|-------------------------|------|------|------|------|-------|------|-------|-------|--------|------|------|-------|------|------|------|
| Lane Configurations     |      |      |      |      | ↕↕    |      |       | ↕     | ↕      |      |      | ↕     |      |      |      |
| Traffic Volume (vph)    | 0    | 0    | 0    | 0    | 540   | 30   | 25    | 135   | 715    | 0    | 0    | 310   |      |      |      |
| Future Volume (vph)     | 0    | 0    | 0    | 0    | 540   | 30   | 25    | 135   | 715    | 0    | 0    | 310   |      |      |      |
| Ideal Flow (vphpl)      | 1900 | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900   | 1900 | 1900 | 1900  |      |      |      |
| Satd. Flow (prot)       | 0    | 0    | 0    | 0    | 3404  | 0    | 0     | 1795  | 1538   | 0    | 0    | 1596  |      |      |      |
| Fit Permitted           |      |      |      |      |       |      |       | 0.992 |        |      |      |       |      |      |      |
| Satd. Flow (perm)       | 0    | 0    | 0    | 0    | 3404  | 0    | 0     | 1792  | 1538   | 0    | 0    | 1596  |      |      |      |
| Right Turn on Red       |      |      | Yes  |      |       | Yes  | Yes   |       | No     |      |      | Yes   |      |      |      |
| Satd. Flow (RTOR)       |      |      |      |      | 4     |      |       | 164   |        |      |      | 685   |      |      |      |
| Link Speed (mph)        |      | 30   |      |      | 30    |      |       | 30    |        | 30   |      |       |      |      |      |
| Link Distance (ft)      |      | 100  |      |      | 336   |      |       | 433   |        | 533  |      |       |      |      |      |
| Travel Time (s)         |      | 2.3  |      |      | 7.6   |      |       | 9.8   |        | 12.1 |      |       |      |      |      |
| Confl. Peds. (#/hr)     |      |      |      |      |       | 4    | 3     |       |        |      |      |       |      |      |      |
| Peak Hour Factor        | 0.92 | 0.92 | 0.92 | 0.83 | 0.83  | 0.83 | 0.93  | 0.93  | 0.93   | 0.78 | 0.78 | 0.78  |      |      |      |
| Heavy Vehicles (%)      | 0%   | 0%   | 0%   | 0%   | 5%    | 4%   | 5%    | 5%    | 5%     | 0%   | 0%   | 3%    |      |      |      |
| Shared Lane Traffic (%) |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Lane Group Flow (vph)   | 0    | 0    | 0    | 0    | 687   | 0    | 0     | 172   | 769    | 0    | 0    | 397   |      |      |      |
| Turn Type               |      |      |      |      | NA    |      | Split | NA    | custom |      |      | Prot  |      |      |      |
| Protected Phases        |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |      | 4     | 7    | 8    | 9    |
| Permitted Phases        |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Detector Phase          |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |      | 4     |      |      |      |
| Switch Phase            |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Minimum Initial (s)     |      |      |      |      | 6.0   |      | 6.0   | 6.0   |        |      |      | 6.0   | 2.0  | 2.0  | 5.0  |
| Minimum Split (s)       |      |      |      |      | 17.5  |      | 19.5  | 19.5  |        |      |      | 10.0  | 4.0  | 4.0  | 27.0 |
| Total Split (s)         |      |      |      |      | 29.0  |      | 26.0  | 26.0  |        |      |      | 29.0  | 4.0  | 4.0  | 28.0 |
| Total Split (%)         |      |      |      |      | 24.2% |      | 21.7% | 21.7% |        |      |      | 24.2% | 3%   | 3%   | 23%  |
| Yellow Time (s)         |      |      |      |      | 3.5   |      | 3.5   | 3.5   |        |      |      | 3.0   | 2.0  | 2.0  | 2.0  |
| All-Red Time (s)        |      |      |      |      | 4.5   |      | 4.5   | 4.5   |        |      |      | 1.0   | 0.0  | 0.0  | 3.0  |
| Lost Time Adjust (s)    |      |      |      |      | 0.0   |      |       | 0.0   |        |      |      | 0.0   |      |      |      |
| Total Lost Time (s)     |      |      |      |      | 8.0   |      |       | 8.0   |        |      |      | 4.0   |      |      |      |
| Lead/Lag                |      |      |      |      | Lag   |      | Lag   | Lag   |        |      |      |       | Lead | Lead |      |
| Lead-Lag Optimize?      |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Recall Mode             |      |      |      |      | C-Min |      | None  | None  |        |      |      | None  | Min  | Min  | None |
| Act Effect Green (s)    |      |      |      |      | 38.1  |      |       | 18.0  | 82.7   |      |      | 22.6  |      |      |      |
| Actuated g/C Ratio      |      |      |      |      | 0.32  |      |       | 0.15  | 0.69   |      |      | 0.19  |      |      |      |
| v/c Ratio               |      |      |      |      | 0.63  |      |       | 0.42  | 0.73   |      |      | 0.46  |      |      |      |
| Control Delay           |      |      |      |      | 34.7  |      |       | 11.3  | 17.1   |      |      | 1.8   |      |      |      |
| Queue Delay             |      |      |      |      | 1.3   |      |       | 0.0   | 51.9   |      |      | 0.0   |      |      |      |
| Total Delay             |      |      |      |      | 36.0  |      |       | 11.3  | 69.0   |      |      | 1.8   |      |      |      |
| LOS                     |      |      |      |      | D     |      |       | B     | E      |      |      | A     |      |      |      |
| Approach Delay          |      |      |      |      | 36.0  |      |       | 58.4  |        |      | 1.8  |       |      |      |      |
| Approach LOS            |      |      |      |      | D     |      |       | E     |        |      | A    |       |      |      |      |
| Queue Length 50th (ft)  |      |      |      |      | 162   |      |       | 5     | 102    |      |      | 0     |      |      |      |
| Queue Length 95th (ft)  |      |      |      |      | #384  |      |       | 68    | #617   |      |      | 0     |      |      |      |
| Internal Link Dist (ft) |      | 20   |      |      | 256   |      |       | 353   |        |      | 453  |       |      |      |      |
| Turn Bay Length (ft)    |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Base Capacity (vph)     |      |      |      |      | 1083  |      |       | 408   | 1090   |      |      | 874   |      |      |      |
| Starvation Cap Reductn  |      |      |      |      | 208   |      |       | 0     | 0      |      |      | 0     |      |      |      |
| Spillback Cap Reductn   |      |      |      |      | 0     |      |       | 0     | 463    |      |      | 0     |      |      |      |
| Storage Cap Reductn     |      |      |      |      | 0     |      |       | 0     | 0      |      |      | 0     |      |      |      |
| Reduced v/c Ratio       |      |      |      |      | 0.79  |      |       | 0.42  | 1.23   |      |      | 0.45  |      |      |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 9 (8%), Referenced to phase 2:WBT, Start of Yellow  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 39.7  
 Intersection Capacity Utilization 60.3%  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Washington Street & Elm Street



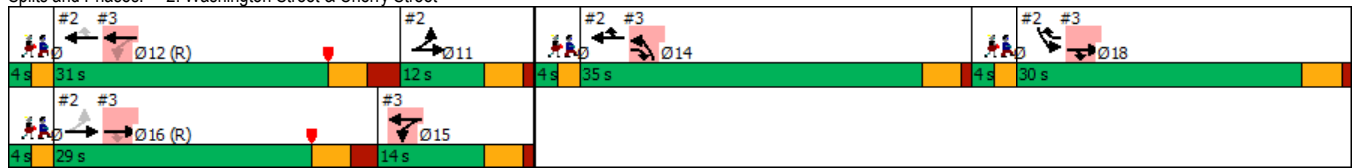


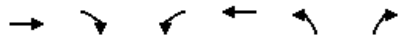
| Lane Group              | EBL    | EBT   | WBT   | WBR    | SBL   | SBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø12   | Ø14  | Ø15  | Ø16   |
|-------------------------|--------|-------|-------|--------|-------|------|------|------|------|------|-------|------|------|-------|
| Lane Configurations     | ↔      | ↔     | ↔     | ↔      | ↔     | ↔    |      |      |      |      |       |      |      |       |
| Traffic Volume (vph)    | 100    | 615   | 500   | 160    | 545   | 70   |      |      |      |      |       |      |      |       |
| Future Volume (vph)     | 100    | 615   | 500   | 160    | 545   | 70   |      |      |      |      |       |      |      |       |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900   | 1900  | 1900 |      |      |      |      |       |      |      |       |
| Storage Length (ft)     | 200    |       |       | 0      | 100   | 0    |      |      |      |      |       |      |      |       |
| Storage Lanes           | 1      |       |       | 1      | 1     | 0    |      |      |      |      |       |      |      |       |
| Taper Length (ft)       | 25     |       |       |        | 25    |      |      |      |      |      |       |      |      |       |
| Satd. Flow (prot)       | 1787   | 1810  | 1810  | 1583   | 3342  | 0    |      |      |      |      |       |      |      |       |
| Flt Permitted           | 0.174  |       |       |        | 0.958 |      |      |      |      |      |       |      |      |       |
| Satd. Flow (perm)       | 327    | 1810  | 1810  | 1500   | 3342  | 0    |      |      |      |      |       |      |      |       |
| Right Turn on Red       |        |       |       | Yes    |       | Yes  |      |      |      |      |       |      |      |       |
| Satd. Flow (RTOR)       |        |       |       | 178    | 11    |      |      |      |      |      |       |      |      |       |
| Link Speed (mph)        |        | 30    | 30    |        | 30    |      |      |      |      |      |       |      |      |       |
| Link Distance (ft)      |        | 336   | 185   |        | 438   |      |      |      |      |      |       |      |      |       |
| Travel Time (s)         |        | 7.6   | 4.2   |        | 10.0  |      |      |      |      |      |       |      |      |       |
| Confl. Peds. (#/hr)     |        |       |       | 8      |       | 9    |      |      |      |      |       |      |      |       |
| Peak Hour Factor        | 0.86   | 0.86  | 0.90  | 0.90   | 0.90  | 0.90 |      |      |      |      |       |      |      |       |
| Heavy Vehicles (%)      | 1%     | 5%    | 5%    | 2%     | 3%    | 5%   |      |      |      |      |       |      |      |       |
| Shared Lane Traffic (%) |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Lane Group Flow (vph)   | 116    | 715   | 556   | 178    | 684   | 0    |      |      |      |      |       |      |      |       |
| Turn Type               | custom | NA    | NA    | custom | Prot  |      |      |      |      |      |       |      |      |       |
| Protected Phases        | 11     | 11 16 | 12 14 | 14 18  | 18    |      | 2    | 4    | 6    | 8    | 12    | 14   | 15   | 16    |
| Permitted Phases        | 16     |       |       | 12     |       |      |      |      |      |      |       |      |      |       |
| Detector Phase          | 11     | 11 16 | 12 14 | 14 18  | 18    |      |      |      |      |      |       |      |      |       |
| Switch Phase            |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Minimum Initial (s)     | 8.0    |       |       |        | 8.0   |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0   | 8.0  | 8.0  | 8.0   |
| Minimum Split (s)       | 12.5   |       |       |        | 20.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 15.0  | 19.0 | 12.5 | 16.5  |
| Total Split (s)         | 12.0   |       |       |        | 30.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 31.0  | 35.0 | 14.0 | 29.0  |
| Total Split (%)         | 10.0%  |       |       |        | 25.0% |      | 3%   | 3%   | 3%   | 3%   | 26%   | 29%  | 12%  | 24%   |
| Yellow Time (s)         | 3.5    |       |       |        | 3.5   |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5   | 3.5  | 3.5  | 3.5   |
| All-Red Time (s)        | 1.0    |       |       |        | 1.0   |      | 0.0  | 0.0  | 0.0  | 0.0  | 3.0   | 1.0  | 1.0  | 2.5   |
| Lost Time Adjust (s)    | 0.0    |       |       |        | 0.0   |      |      |      |      |      |       |      |      |       |
| Total Lost Time (s)     | 4.5    |       |       |        | 4.5   |      |      |      |      |      |       |      |      |       |
| Lead/Lag                |        |       |       |        | Lag   |      | Lead | Lead | Lead | Lead | Lag   | Lag  |      | Lag   |
| Lead-Lag Optimize?      |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Recall Mode             | None   |       |       |        | None  |      | Min  | Min  | Min  | Min  | C-Min | None | None | C-Min |
| Act Effct Green (s)     | 32.0   | 32.0  | 47.6  | 80.2   | 28.5  |      |      |      |      |      |       |      |      |       |
| Actuated g/C Ratio      | 0.27   | 0.27  | 0.40  | 0.67   | 0.24  |      |      |      |      |      |       |      |      |       |
| v/c Ratio               | 0.65   | 1.48  | 0.77  | 0.16   | 0.85  |      |      |      |      |      |       |      |      |       |
| Control Delay           | 57.5   | 256.5 | 8.6   | 1.4    | 55.2  |      |      |      |      |      |       |      |      |       |
| Queue Delay             | 0.0    | 0.3   | 10.1  | 0.4    | 6.2   |      |      |      |      |      |       |      |      |       |
| Total Delay             | 57.5   | 256.7 | 18.7  | 1.8    | 61.4  |      |      |      |      |      |       |      |      |       |
| LOS                     | E      | F     | B     | A      | E     |      |      |      |      |      |       |      |      |       |
| Approach Delay          |        | 228.9 | 14.6  |        | 61.4  |      |      |      |      |      |       |      |      |       |
| Approach LOS            |        | F     | B     |        | E     |      |      |      |      |      |       |      |      |       |
| Queue Length 50th (ft)  | 56     | -675  | 138   | 4      | 268   |      |      |      |      |      |       |      |      |       |
| Queue Length 95th (ft)  | m97    | #835  | m115  | m4     | #387  |      |      |      |      |      |       |      |      |       |
| Internal Link Dist (ft) |        | 256   | 105   |        | 358   |      |      |      |      |      |       |      |      |       |
| Turn Bay Length (ft)    | 200    |       |       |        | 100   |      |      |      |      |      |       |      |      |       |
| Base Capacity (vph)     | 178    | 482   | 799   | 1154   | 802   |      |      |      |      |      |       |      |      |       |
| Starvation Cap Reductn  | 0      | 16    | 214   | 609    | 0     |      |      |      |      |      |       |      |      |       |
| Spillback Cap Reductn   | 0      | 3     | 88    | 0      | 82    |      |      |      |      |      |       |      |      |       |
| Storage Cap Reductn     | 0      | 0     | 0     | 0      | 0     |      |      |      |      |      |       |      |      |       |
| Reduced v/c Ratio       | 0.65   | 1.53  | 0.95  | 0.33   | 0.95  |      |      |      |      |      |       |      |      |       |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.48  
 Intersection Signal Delay: 108.0 Intersection LOS: F  
 Intersection Capacity Utilization 63.7% ICU Level of Service B  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Washington Street & Cherry Street





| Lane Group              | EBT   | EBR    | WBL    | WBT   | NBL   | NBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø11  | Ø12   | Ø16   | Ø18  |
|-------------------------|-------|--------|--------|-------|-------|------|------|------|------|------|------|-------|-------|------|
| Lane Configurations     | ↑↑    | ↑      | ↓      | ↑     | ↓     |      |      |      |      |      |      |       |       |      |
| Traffic Volume (vph)    | 860   | 300    | 120    | 515   | 145   | 35   |      |      |      |      |      |       |       |      |
| Future Volume (vph)     | 860   | 300    | 120    | 515   | 145   | 35   |      |      |      |      |      |       |       |      |
| Ideal Flow (vphpl)      | 1900  | 1900   | 1900   | 1900  | 1900  | 1900 |      |      |      |      |      |       |       |      |
| Storage Length (ft)     |       | 85     | 0      |       | 0     | 0    |      |      |      |      |      |       |       |      |
| Storage Lanes           |       | 1      | 1      |       | 1     | 0    |      |      |      |      |      |       |       |      |
| Taper Length (ft)       |       |        | 25     |       | 25    |      |      |      |      |      |      |       |       |      |
| Satd. Flow (prot)       | 3471  | 1524   | 1770   | 1810  | 1740  | 0    |      |      |      |      |      |       |       |      |
| Flt Permitted           |       |        | 0.163  |       | 0.961 |      |      |      |      |      |      |       |       |      |
| Satd. Flow (perm)       | 3471  | 1446   | 304    | 1810  | 1740  | 0    |      |      |      |      |      |       |       |      |
| Right Turn on Red       |       | Yes    |        |       |       | Yes  |      |      |      |      |      |       |       |      |
| Satd. Flow (RTOR)       |       | 265    |        |       | 10    |      |      |      |      |      |      |       |       |      |
| Link Speed (mph)        | 30    |        |        | 30    | 30    |      |      |      |      |      |      |       |       |      |
| Link Distance (ft)      | 185   |        |        | 301   | 145   |      |      |      |      |      |      |       |       |      |
| Travel Time (s)         | 4.2   |        |        | 6.8   | 3.3   |      |      |      |      |      |      |       |       |      |
| Confl. Peds. (#/hr)     |       | 7      |        |       |       | 8    |      |      |      |      |      |       |       |      |
| Confl. Bikes (#/hr)     |       | 5      |        |       |       |      |      |      |      |      |      |       |       |      |
| Peak Hour Factor        | 0.94  | 0.94   | 0.81   | 0.81  | 0.80  | 0.80 |      |      |      |      |      |       |       |      |
| Heavy Vehicles (%)      | 4%    | 6%     | 2%     | 5%    | 1%    | 4%   |      |      |      |      |      |       |       |      |
| Shared Lane Traffic (%) |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Lane Group Flow (vph)   | 915   | 319    | 148    | 636   | 225   | 0    |      |      |      |      |      |       |       |      |
| Turn Type               | NA    | custom | custom | NA    | Prot  |      |      |      |      |      |      |       |       |      |
| Protected Phases        | 16 18 | 14 18  | 15     | 12 15 | 14    |      | 2    | 4    | 6    | 8    | 11   | 12    | 16    | 18   |
| Permitted Phases        |       | 16     | 12     |       |       |      |      |      |      |      |      |       |       |      |
| Detector Phase          | 16 18 | 14 18  | 15     | 12 15 | 14    |      |      |      |      |      |      |       |       |      |
| Switch Phase            |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Minimum Initial (s)     |       |        | 8.0    |       | 8.0   |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0  | 8.0   | 8.0   | 8.0  |
| Minimum Split (s)       |       |        | 12.5   |       | 19.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 12.5 | 15.0  | 16.5  | 20.0 |
| Total Split (s)         |       |        | 14.0   |       | 35.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 12.0 | 31.0  | 29.0  | 30.0 |
| Total Split (%)         |       |        | 11.7%  |       | 29.2% |      | 3%   | 3%   | 3%   | 3%   | 10%  | 26%   | 24%   | 25%  |
| Yellow Time (s)         |       |        | 3.5    |       | 3.5   |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5  | 3.5   | 3.5   | 3.5  |
| All-Red Time (s)        |       |        | 1.0    |       | 1.0   |      | 0.0  | 0.0  | 0.0  | 0.0  | 1.0  | 3.0   | 2.5   | 1.0  |
| Lost Time Adjust (s)    |       |        | 0.0    |       | 0.0   |      |      |      |      |      |      |       |       |      |
| Total Lost Time (s)     |       |        | 4.5    |       | 4.5   |      |      |      |      |      |      |       |       |      |
| Lead/Lag                |       |        |        |       | Lag   |      | Lead | Lead | Lead | Lead |      | Lag   | Lag   | Lag  |
| Lead-Lag Optimize?      |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Recall Mode             |       |        | None   |       | None  |      | Min  | Min  | Min  | Min  | None | C-Min | C-Min | None |
| Act Effect Green (s)    | 50.0  | 78.2   | 36.0   | 32.0  | 25.1  |      |      |      |      |      |      |       |       |      |
| Actuated g/C Ratio      | 0.42  | 0.65   | 0.30   | 0.27  | 0.21  |      |      |      |      |      |      |       |       |      |
| v/c Ratio               | 0.63  | 0.30   | 0.71   | 1.32  | 0.61  |      |      |      |      |      |      |       |       |      |
| Control Delay           | 13.2  | 1.2    | 67.1   | 193.5 | 47.2  |      |      |      |      |      |      |       |       |      |
| Queue Delay             | 5.3   | 0.8    | 0.0    | 0.6   | 0.4   |      |      |      |      |      |      |       |       |      |
| Total Delay             | 18.5  | 2.0    | 67.1   | 194.2 | 47.6  |      |      |      |      |      |      |       |       |      |
| LOS                     | B     | A      | E      | F     | D     |      |      |      |      |      |      |       |       |      |
| Approach Delay          | 14.2  |        |        | 170.2 | 47.6  |      |      |      |      |      |      |       |       |      |
| Approach LOS            | B     |        |        | F     | D     |      |      |      |      |      |      |       |       |      |
| Queue Length 50th (ft)  | 91    | 5      | 103    | ~556  | 148   |      |      |      |      |      |      |       |       |      |
| Queue Length 95th (ft)  | m82   | m4     | m#126  | #657  | 193   |      |      |      |      |      |      |       |       |      |
| Internal Link Dist (ft) | 105   |        |        | 221   | 65    |      |      |      |      |      |      |       |       |      |
| Turn Bay Length (ft)    |       | 85     |        |       |       |      |      |      |      |      |      |       |       |      |
| Base Capacity (vph)     | 1447  | 1119   | 207    | 482   | 449   |      |      |      |      |      |      |       |       |      |
| Starvation Cap Reductn  | 460   | 520    | 0      | 13    | 0     |      |      |      |      |      |      |       |       |      |
| Spillback Cap Reductn   | 242   | 0      | 0      | 33    | 39    |      |      |      |      |      |      |       |       |      |
| Storage Cap Reductn     | 0     | 0      | 0      | 0     | 0     |      |      |      |      |      |      |       |       |      |
| Reduced v/c Ratio       | 0.93  | 0.53   | 0.71   | 1.42  | 0.55  |      |      |      |      |      |      |       |       |      |

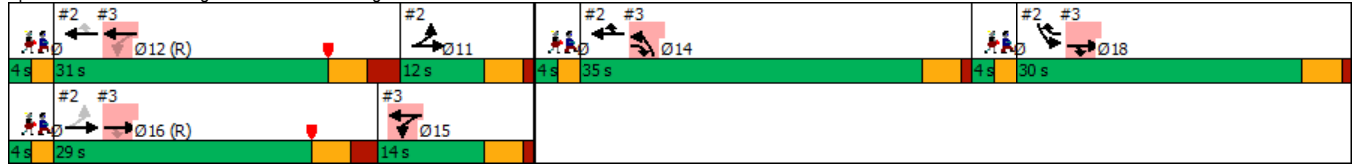
**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.48  
 Intersection Signal Delay: 72.1 Intersection LOS: E  
 Intersection Capacity Utilization 53.7% ICU Level of Service A  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Highland Street & Washington Street



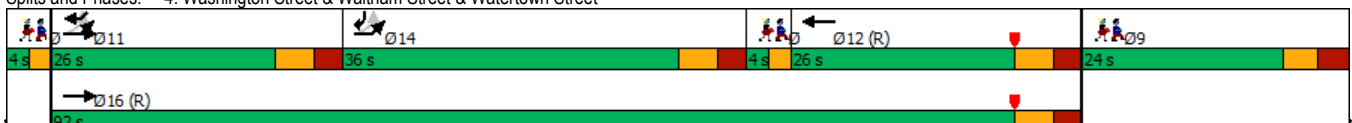


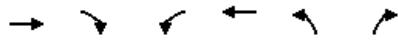
| Lane Group              | EBL2   | EBL   | EBT   | WBT   | WBR  | WBR2 | SBL  | SBR   | SWL  | SWR   | SWR2 | Ø1  | Ø2  | Ø9   | Ø16   |
|-------------------------|--------|-------|-------|-------|------|------|------|-------|------|-------|------|-----|-----|------|-------|
| Lane Configurations     |        | ↖     | ↗     | ↕     | ↕    | ↕    |      | ↖     |      | ↖     | ↖    |     |     |      |       |
| Traffic Volume (vph)    | 1      | 325   | 570   | 220   | 155  | 2    | 0    | 200   | 0    | 215   | 40   |     |     |      |       |
| Future Volume (vph)     | 1      | 325   | 570   | 220   | 155  | 2    | 0    | 200   | 0    | 215   | 40   |     |     |      |       |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900  | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900 |     |     |      |       |
| Satd. Flow (prot)       | 0      | 1736  | 1810  | 3107  | 0    | 0    | 0    | 1580  | 0    | 1577  | 0    |     |     |      |       |
| Fit Permitted           |        | 0.999 |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Satd. Flow (perm)       | 0      | 1825  | 1810  | 3107  | 0    | 0    | 0    | 1580  | 0    | 1577  | 0    |     |     |      |       |
| Right Turn on Red       |        |       |       |       |      |      | Yes  | Yes   |      |       | No   |     |     |      |       |
| Satd. Flow (RTOR)       |        |       |       |       |      |      |      | 469   |      |       |      |     |     |      |       |
| Link Speed (mph)        |        |       | 30    | 30    |      |      | 30   |       | 30   |       |      |     |     |      |       |
| Link Distance (ft)      |        |       | 301   | 274   |      |      | 478  |       | 461  |       |      |     |     |      |       |
| Travel Time (s)         |        |       | 6.8   | 6.2   |      |      | 10.9 |       | 10.5 |       |      |     |     |      |       |
| Confl. Peds. (#/hr)     |        |       |       |       |      | 13   |      |       |      |       | 13   |     |     |      |       |
| Peak Hour Factor        | 0.96   | 0.96  | 0.96  | 0.88  | 0.88 | 0.88 | 0.92 | 0.92  | 0.79 | 0.79  | 0.79 |     |     |      |       |
| Heavy Vehicles (%)      | 0%     | 4%    | 5%    | 4%    | 1%   | 0%   | 0%   | 4%    | 0%   | 5%    | 0%   |     |     |      |       |
| Shared Lane Traffic (%) |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Lane Group Flow (vph)   | 0      | 340   | 594   | 428   | 0    | 0    | 0    | 217   | 0    | 323   | 0    |     |     |      |       |
| Turn Type               | custom | Prot  | NA    | NA    |      |      |      | Prot  |      | Over  |      |     |     |      |       |
| Protected Phases        |        | 11 14 | 11 16 | 12    |      |      |      | 14    |      | 11    |      | 1   | 2   | 9    | 16    |
| Permitted Phases        | 11 14  |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Detector Phase          | 11 14  | 11 14 | 11 16 | 12    |      |      |      | 14    |      | 11    |      |     |     |      |       |
| Switch Phase            |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Minimum Initial (s)     |        |       |       | 6.0   |      |      |      | 6.0   |      | 6.0   |      | 2.0 | 2.0 | 5.0  | 6.0   |
| Minimum Split (s)       |        |       |       | 12.5  |      |      |      | 12.0  |      | 15.5  |      | 4.0 | 4.0 | 23.0 | 12.0  |
| Total Split (s)         |        |       |       | 26.0  |      |      |      | 36.0  |      | 26.0  |      | 4.0 | 4.0 | 24.0 | 92.0  |
| Total Split (%)         |        |       |       | 21.7% |      |      |      | 30.0% |      | 21.7% |      | 3%  | 3%  | 20%  | 77%   |
| Yellow Time (s)         |        |       |       | 3.5   |      |      |      | 3.5   |      | 3.5   |      | 2.0 | 2.0 | 3.0  | 3.5   |
| All-Red Time (s)        |        |       |       | 2.5   |      |      |      | 2.5   |      | 2.5   |      | 0.0 | 0.0 | 3.0  | 2.5   |
| Lost Time Adjust (s)    |        |       |       | 0.0   |      |      |      | 0.0   |      | 0.0   |      |     |     |      |       |
| Total Lost Time (s)     |        |       |       | 6.0   |      |      |      | 6.0   |      | 6.0   |      |     |     |      |       |
| Lead/Lag                |        |       |       | Lag   |      |      |      | Lag   |      | Lead  |      |     |     | Lead |       |
| Lead-Lag Optimize?      |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Recall Mode             |        |       |       | C-Min |      |      |      | None  |      | None  |      | Min | Min | None | C-Min |
| Act Effect Green (s)    |        | 49.9  | 98.3  | 34.9  |      |      |      | 9.8   |      | 34.1  |      |     |     |      |       |
| Actuated g/C Ratio      |        | 0.42  | 0.82  | 0.29  |      |      |      | 0.08  |      | 0.28  |      |     |     |      |       |
| v/c Ratio               |        | 0.45  | 0.40  | 0.47  |      |      |      | 0.39  |      | 0.72  |      |     |     |      |       |
| Control Delay           |        | 52.2  | 5.1   | 38.9  |      |      |      | 2.0   |      | 51.7  |      |     |     |      |       |
| Queue Delay             |        | 1.1   | 1.5   | 2.9   |      |      |      | 0.8   |      | 8.5   |      |     |     |      |       |
| Total Delay             |        | 53.3  | 6.6   | 41.7  |      |      |      | 2.9   |      | 60.3  |      |     |     |      |       |
| LOS                     |        | D     | A     | D     |      |      |      | A     |      | E     |      |     |     |      |       |
| Approach Delay          |        |       | 23.6  | 41.7  |      |      | 2.9  |       | 60.3 |       |      |     |     |      |       |
| Approach LOS            |        |       | C     | D     |      |      | A    |       | E    |       |      |     |     |      |       |
| Queue Length 50th (ft)  |        | 271   | 85    | 148   |      |      |      | 0     |      | 205   |      |     |     |      |       |
| Queue Length 95th (ft)  |        | 330   | 100   | 212   |      |      |      | 0     |      | #406  |      |     |     |      |       |
| Internal Link Dist (ft) |        |       | 221   | 194   |      |      | 398  |       | 381  |       |      |     |     |      |       |
| Turn Bay Length (ft)    |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Base Capacity (vph)     |        | 1065  | 1482  | 904   |      |      |      | 746   |      | 447   |      |     |     |      |       |
| Starvation Cap Reductn  |        | 487   | 670   | 356   |      |      |      | 0     |      | 0     |      |     |     |      |       |
| Spillback Cap Reductn   |        | 0     | 115   | 330   |      |      |      | 297   |      | 91    |      |     |     |      |       |
| Storage Cap Reductn     |        | 0     | 0     | 0     |      |      |      | 0     |      | 0     |      |     |     |      |       |
| Reduced v/c Ratio       |        | 0.59  | 0.73  | 0.78  |      |      |      | 0.48  |      | 0.91  |      |     |     |      |       |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 117 (98%), Referenced to phase 12:WBT and 16:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 31.6  
 Intersection Capacity Utilization 60.5%  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Washington Street & Waltham Street & Watertown Street



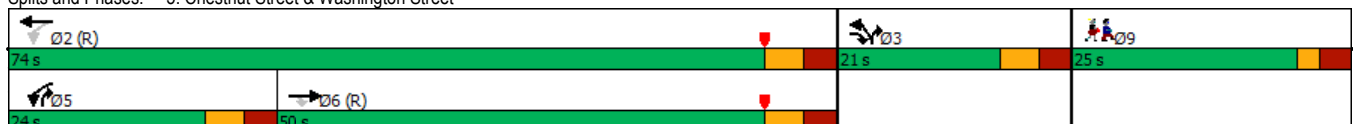


| Lane Group              | EBT   | EBR   | WBL   | WBT   | NBL   | NBR   | Ø9   |
|-------------------------|-------|-------|-------|-------|-------|-------|------|
| Lane Configurations     | ↑     | ↑     | ↑     | ↑     | ↑     | ↑     |      |
| Traffic Volume (vph)    | 515   | 55    | 200   | 295   | 80    | 145   |      |
| Future Volume (vph)     | 515   | 55    | 200   | 295   | 80    | 145   |      |
| Ideal Flow (vphpl)      | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Storage Length (ft)     |       | 35    | 0     |       | 0     | 150   |      |
| Storage Lanes           |       | 1     | 1     |       | 1     | 1     |      |
| Taper Length (ft)       |       |       | 25    |       | 25    |       |      |
| Satd. Flow (prot)       | 1827  | 1482  | 1770  | 1827  | 1770  | 1583  |      |
| Flt Permitted           |       |       | 0.262 |       | 0.950 |       |      |
| Satd. Flow (perm)       | 1827  | 1449  | 488   | 1827  | 1770  | 1583  |      |
| Right Turn on Red       |       | Yes   |       |       |       | Yes   |      |
| Satd. Flow (RTOR)       |       | 15    |       |       |       | 163   |      |
| Link Speed (mph)        | 30    |       |       | 30    | 30    |       |      |
| Link Distance (ft)      | 274   |       |       | 584   | 336   |       |      |
| Travel Time (s)         | 6.2   |       |       | 13.3  | 7.6   |       |      |
| Confl. Bikes (#/hr)     |       | 3     |       |       |       |       |      |
| Peak Hour Factor        | 0.85  | 0.85  | 0.90  | 0.90  | 0.89  | 0.89  |      |
| Heavy Vehicles (%)      | 4%    | 9%    | 2%    | 4%    | 2%    | 2%    |      |
| Shared Lane Traffic (%) |       |       |       |       |       |       |      |
| Lane Group Flow (vph)   | 606   | 65    | 222   | 328   | 90    | 163   |      |
| Turn Type               | NA    | pm+ov | pm+pt | NA    | Prot  | pt+ov |      |
| Protected Phases        | 6     | 3     | 5     | 2     | 3     | 3.5   | 9    |
| Permitted Phases        |       | 6     | 2     |       |       |       |      |
| Detector Phase          | 6     | 3     | 5     | 2     | 3     | 3.5   |      |
| Switch Phase            |       |       |       |       |       |       |      |
| Minimum Initial (s)     | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   |       | 5.0  |
| Minimum Split (s)       | 12.5  | 12.5  | 12.5  | 12.5  | 12.5  |       | 24.0 |
| Total Split (s)         | 50.0  | 21.0  | 24.0  | 74.0  | 21.0  |       | 25.0 |
| Total Split (%)         | 41.7% | 17.5% | 20.0% | 61.7% | 17.5% |       | 21%  |
| Yellow Time (s)         | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   |       | 2.0  |
| All-Red Time (s)        | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   |       | 3.0  |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |       |      |
| Total Lost Time (s)     | 6.5   | 6.5   | 6.5   | 6.5   | 6.5   |       |      |
| Lead/Lag                | Lag   |       | Lead  |       |       |       |      |
| Lead-Lag Optimize?      |       |       |       |       |       |       |      |
| Recall Mode             | C-Min | None  | None  | C-Min | None  |       | None |
| Act Effct Green (s)     | 67.4  | 78.5  | 86.3  | 86.3  | 11.1  | 27.4  |      |
| Actuated g/C Ratio      | 0.56  | 0.65  | 0.72  | 0.72  | 0.09  | 0.23  |      |
| v/c Ratio               | 0.59  | 0.07  | 0.46  | 0.25  | 0.55  | 0.33  |      |
| Control Delay           | 18.4  | 6.8   | 11.2  | 8.9   | 64.1  | 4.7   |      |
| Queue Delay             | 1.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |      |
| Total Delay             | 19.9  | 6.8   | 11.2  | 8.9   | 64.1  | 4.7   |      |
| LOS                     | B     | A     | B     | A     | E     | A     |      |
| Approach Delay          | 18.7  |       |       | 9.8   | 25.8  |       |      |
| Approach LOS            | B     |       |       | A     | C     |       |      |
| Queue Length 50th (ft)  | 130   | 0     | 32    | 51    | 68    | 0     |      |
| Queue Length 95th (ft)  | #620  | 22    | 123   | 184   | 118   | 31    |      |
| Internal Link Dist (ft) | 194   |       |       | 504   | 256   |       |      |
| Turn Bay Length (ft)    |       | 35    |       |       |       | 150   |      |
| Base Capacity (vph)     | 1025  | 997   | 539   | 1313  | 213   | 541   |      |
| Starvation Cap Reductn  | 243   | 0     | 0     | 0     | 0     | 0     |      |
| Spillback Cap Reductn   | 0     | 0     | 0     | 111   | 0     | 0     |      |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     | 0     |      |
| Reduced v/c Ratio       | 0.77  | 0.07  | 0.41  | 0.27  | 0.42  | 0.30  |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 10 (8%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.59  
 Intersection Signal Delay: 16.6 Intersection LOS: B  
 Intersection Capacity Utilization 59.4% ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Chestnut Street & Washington Street



| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 0      |        |        |      |      |      |
| Movement                 | WBL    | WBR    | NBT    | NBR  | SBL  | SBT  |
| Lane Configurations      | W      |        | T      |      |      | T    |
| Traffic Vol, veh/h       | 0      | 0      | 180    | 0    | 0    | 420  |
| Future Vol, veh/h        | 0      | 0      | 180    | 0    | 0    | 420  |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 11   | 11   | 0    |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | 0      | -    | -    | 0    |
| Grade, %                 | 0      | -      | 0      | -    | -    | 0    |
| Peak Hour Factor         | 92     | 92     | 86     | 86   | 84   | 84   |
| Heavy Vehicles, %        | 0      | 0      | 1      | 0    | 0    | 2    |
| Mvmt Flow                | 0      | 0      | 209    | 0    | 0    | 500  |
| Major/Minor              | Minor1 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 720    | 220    | 0      | 0    | 220  | 0    |
| Stage 1                  | 220    | -      | -      | -    | -    | -    |
| Stage 2                  | 500    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.4    | 6.2    | -      | -    | 4.1  | -    |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 3.3    | -      | -    | 2.2  | -    |
| Pot Cap-1 Maneuver       | 398    | 825    | -      | -    | 1361 | -    |
| Stage 1                  | 821    | -      | -      | -    | -    | -    |
| Stage 2                  | 613    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        | -      | -    | -    | -    |
| Mov Cap-1 Maneuver       | 394    | 816    | -      | -    | 1347 | -    |
| Mov Cap-2 Maneuver       | 394    | -      | -      | -    | -    | -    |
| Stage 1                  | 813    | -      | -      | -    | -    | -    |
| Stage 2                  | 613    | -      | -      | -    | -    | -    |
| Approach                 | WB     | NB     |        | SB   |      |      |
| HCM Control Delay, s     | 0      | 0      |        | 0    |      |      |
| HCM LOS                  | A      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBR    | WBLn1  | SBL  | SBT  |      |
| Capacity (veh/h)         | -      | -      | -      | 1347 | -    |      |
| HCM Lane V/C Ratio       | -      | -      | -      | -    | -    |      |
| HCM Control Delay (s)    | -      | -      | 0      | 0    | -    |      |
| HCM Lane LOS             | -      | -      | A      | A    | -    |      |
| HCM 95th %tile Q(veh)    | -      | -      | -      | 0    | -    |      |

| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 0.1    |        |        |      |      |      |
| Movement                 | EBL    | EBR    | NBL    | NBT  | SBT  | SBR  |
| Lane Configurations      | W      |        |        | W    | W    |      |
| Traffic Vol, veh/h       | 0      | 0      | 5      | 180  | 405  | 15   |
| Future Vol, veh/h        | 0      | 0      | 5      | 180  | 405  | 15   |
| Conflicting Peds, #/hr   | 0      | 0      | 41     | 0    | 0    | 41   |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | -      | 0    | 0    | -    |
| Grade, %                 | 0      | -      | -      | 0    | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 86     | 86   | 84   | 84   |
| Heavy Vehicles, %        | 0      | 0      | 0      | 1    | 2    | 0    |
| Mvmt Flow                | 0      | 0      | 6      | 209  | 482  | 18   |
| Major/Minor              | Minor2 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 753    | 532    | 541    | 0    | -    | 0    |
| Stage 1                  | 532    | -      | -      | -    | -    | -    |
| Stage 2                  | 221    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.4    | 6.2    | 4.1    | -    | -    | -    |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 3.3    | 2.2    | -    | -    | -    |
| Pot Cap-1 Maneuver       | 380    | 551    | 1038   | -    | -    | -    |
| Stage 1                  | 593    | -      | -      | -    | -    | -    |
| Stage 2                  | 821    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        |        | -    | -    | -    |
| Mov Cap-1 Maneuver       | 348    | 529    | 997    | -    | -    | -    |
| Mov Cap-2 Maneuver       | 348    | -      | -      | -    | -    | -    |
| Stage 1                  | 566    | -      | -      | -    | -    | -    |
| Stage 2                  | 789    | -      | -      | -    | -    | -    |
| Approach                 | EB     | NB     |        | SB   |      |      |
| HCM Control Delay, s     | 0      | 0.2    |        | 0    |      |      |
| HCM LOS                  | A      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1  | SBT  | SBR  |      |
| Capacity (veh/h)         | 997    | -      | -      | -    | -    |      |
| HCM Lane V/C Ratio       | 0.006  | -      | -      | -    | -    |      |
| HCM Control Delay (s)    | 8.6    | 0      | 0      | -    | -    |      |
| HCM Lane LOS             | A      | A      | A      | -    | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | -      | -    | -    |      |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.2  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 15   | 5    | 5    | 0    | 0    | 45   | 0    | 125  | 90   | 50   | 355  | 0    |
| Future Vol, veh/h        | 15   | 5    | 5    | 0    | 0    | 45   | 0    | 125  | 90   | 50   | 355  | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 13   | 0    | 0    | 13   | 13   | 0    | 11   | 11   | 0    | 13   |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 61   | 61   | 61   | 77   | 77   | 77   | 86   | 86   | 86   | 84   | 84   | 84   |
| Heavy Vehicles, %        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 0    | 2    | 0    |
| Mvmt Flow                | 25   | 8    | 8    | 0    | 0    | 58   | 0    | 145  | 105  | 60   | 423  | 0    |

| Major/Minor          | Minor2 |     | Minor1 |   |     | Major1 |      |   | Major2 |      |   |   |
|----------------------|--------|-----|--------|---|-----|--------|------|---|--------|------|---|---|
| Conflicting Flow All | 796    | 817 | 449    | - | 765 | 222    | 436  | 0 | 0      | 261  | 0 | 0 |
| Stage 1              | 556    | 556 | -      | - | 209 | -      | -    | - | -      | -    | - | - |
| Stage 2              | 240    | 261 | -      | - | 556 | -      | -    | - | -      | -    | - | - |
| Critical Hdwy        | 7.1    | 6.5 | 6.2    | - | 6.5 | 6.2    | 4.1  | - | -      | 4.1  | - | - |
| Critical Hdwy Stg 1  | 6.1    | 5.5 | -      | - | 5.5 | -      | -    | - | -      | -    | - | - |
| Critical Hdwy Stg 2  | 6.1    | 5.5 | -      | - | 5.5 | -      | -    | - | -      | -    | - | - |
| Follow-up Hdwy       | 3.5    | 4   | 3.3    | - | 4   | 3.3    | 2.2  | - | -      | 2.2  | - | - |
| Pot Cap-1 Maneuver   | 307    | 313 | 614    | 0 | 336 | 823    | 1134 | - | -      | 1315 | - | - |
| Stage 1              | 519    | 516 | -      | 0 | 733 | -      | -    | - | -      | -    | - | - |
| Stage 2              | 768    | 696 | -      | 0 | 516 | -      | -    | - | -      | -    | - | - |
| Platoon blocked, %   |        |     |        |   |     |        |      |   |        |      |   |   |
| Mov Cap-1 Maneuver   | 265    | 288 | 599    | - | 309 | 804    | 1120 | - | -      | 1301 | - | - |
| Mov Cap-2 Maneuver   | 265    | 288 | -      | - | 309 | -      | -    | - | -      | -    | - | - |
| Stage 1              | 513    | 479 | -      | - | 726 | -      | -    | - | -      | -    | - | - |
| Stage 2              | 703    | 689 | -      | - | 479 | -      | -    | - | -      | -    | - | - |

| Approach             | EB   | WB  | NB | SB |
|----------------------|------|-----|----|----|
| HCM Control Delay, s | 18.7 | 9.8 | 0  | 1  |
| HCM LOS              | C    | A   |    |    |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1120 | -   | -   | 304   | 804   | 1301  | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.135 | 0.073 | 0.046 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 18.7  | 9.8   | 7.9   | 0   | -   |
| HCM Lane LOS          | A    | -   | -   | C     | A     | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0.5   | 0.2   | 0.1   | -   | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↕    |      | ↕    |      |
| Traffic Vol, veh/h       | 0    | 145  | 45   | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 145  | 45   | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 13   | 0    | 0    | 13   | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 66   | 66   | 77   | 77   | 92   | 92   |
| Heavy Vehicles, %        | 0    | 1    | 0    | 0    | 0    | 0    |
| Mvmt Flow                | 0    | 220  | 58   | 0    | 0    | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |     |     |
|----------------------|--------|--------|--------|-----|-----|
| Conflicting Flow All | 71     | 0      | 0      | 291 | 71  |
| Stage 1              | -      | -      | -      | 71  | -   |
| Stage 2              | -      | -      | -      | 220 | -   |
| Critical Hdwy        | 4.1    | -      | -      | 6.4 | 6.2 |
| Critical Hdwy Stg 1  | -      | -      | -      | 5.4 | -   |
| Critical Hdwy Stg 2  | -      | -      | -      | 5.4 | -   |
| Follow-up Hdwy       | 2.2    | -      | -      | 3.5 | 3.3 |
| Pot Cap-1 Maneuver   | 1542   | -      | -      | 704 | 997 |
| Stage 1              | -      | -      | -      | 957 | -   |
| Stage 2              | -      | -      | -      | 821 | -   |
| Platoon blocked, %   | -      | -      | -      | -   | -   |
| Mov Cap-1 Maneuver   | 1523   | -      | -      | 687 | 985 |
| Mov Cap-2 Maneuver   | -      | -      | -      | 687 | -   |
| Stage 1              | -      | -      | -      | 946 | -   |
| Stage 2              | -      | -      | -      | 811 | -   |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1523 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 4.5  |      |      |      |      |      |
| Movement                 | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Configurations      | W    |      |      | W    | W    |      |
| Traffic Vol, veh/h       | 65   | 80   | 20   | 160  | 230  | 25   |
| Future Vol, veh/h        | 65   | 80   | 20   | 160  | 230  | 25   |
| Conflicting Peds, #/hr   | 4    | 6    | 2    | 0    | 0    | 2    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 66   | 66   | 89   | 89   | 70   | 70   |
| Heavy Vehicles, %        | 1    | 1    | 0    | 2    | 4    | 0    |
| Mvmt Flow                | 98   | 121  | 22   | 180  | 329  | 36   |

| Major/Minor          | Minor2 | Major1 | Major2 |   |   |   |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 577    | 355    | 367    | 0 | - | 0 |
| Stage 1              | 349    | -      | -      | - | - | - |
| Stage 2              | 228    | -      | -      | - | - | - |
| Critical Hdwy        | 6.41   | 6.21   | 4.1    | - | - | - |
| Critical Hdwy Stg 1  | 5.41   | -      | -      | - | - | - |
| Critical Hdwy Stg 2  | 5.41   | -      | -      | - | - | - |
| Follow-up Hdwy       | 3.509  | 3.309  | 2.2    | - | - | - |
| Pot Cap-1 Maneuver   | 480    | 691    | 1203   | - | - | - |
| Stage 1              | 716    | -      | -      | - | - | - |
| Stage 2              | 812    | -      | -      | - | - | - |
| Platoon blocked, %   |        |        |        | - | - | - |
| Mov Cap-1 Maneuver   | 468    | 686    | 1201   | - | - | - |
| Mov Cap-2 Maneuver   | 468    | -      | -      | - | - | - |
| Stage 1              | 700    | -      | -      | - | - | - |
| Stage 2              | 810    | -      | -      | - | - | - |

| Approach             | EB   | NB  | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 15.3 | 0.9 | 0  |
| HCM LOS              | C    |     |    |

| Minor Lane/Major Mvmt | NBL   | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h)      | 1201  | -   | 567   | -   | -   |
| HCM Lane V/C Ratio    | 0.019 | -   | 0.387 | -   | -   |
| HCM Control Delay (s) | 8.1   | 0   | 15.3  | -   | -   |
| HCM Lane LOS          | A     | A   | C     | -   | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | 1.8   | -   | -   |





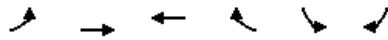
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL   | NBT   | NBR    | SBL  | SBT  | SBR   | Ø7   | Ø8   | Ø9   |
|-------------------------|------|------|------|------|-------|------|-------|-------|--------|------|------|-------|------|------|------|
| Lane Configurations     |      |      |      |      | ↕↕    |      |       | ↕     | ↕      |      |      | ↕     |      |      |      |
| Traffic Volume (vph)    | 0    | 0    | 0    | 0    | 635   | 50   | 40    | 150   | 710    | 0    | 0    | 235   |      |      |      |
| Future Volume (vph)     | 0    | 0    | 0    | 0    | 635   | 50   | 40    | 150   | 710    | 0    | 0    | 235   |      |      |      |
| Ideal Flow (vphpl)      | 1900 | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900   | 1900 | 1900 | 1900  |      |      |      |
| Satd. Flow (prot)       | 0    | 0    | 0    | 0    | 3454  | 0    | 0     | 1840  | 1583   | 0    | 0    | 1611  |      |      |      |
| Fit Permitted           |      |      |      |      |       |      |       | 0.990 |        |      |      |       |      |      |      |
| Satd. Flow (perm)       | 0    | 0    | 0    | 0    | 3454  | 0    | 0     | 1835  | 1583   | 0    | 0    | 1611  |      |      |      |
| Right Turn on Red       |      |      | Yes  |      |       | Yes  | Yes   |       | No     |      |      | Yes   |      |      |      |
| Satd. Flow (RTOR)       |      |      |      |      | 6     |      |       | 164   |        |      |      | 620   |      |      |      |
| Link Speed (mph)        |      | 30   |      |      | 30    |      |       | 30    |        |      | 30   |       |      |      |      |
| Link Distance (ft)      |      | 100  |      |      | 336   |      |       | 433   |        |      | 533  |       |      |      |      |
| Travel Time (s)         |      | 2.3  |      |      | 7.6   |      |       | 9.8   |        |      | 12.1 |       |      |      |      |
| Confl. Peds. (#/hr)     |      |      |      |      |       | 17   | 4     |       |        |      |      |       |      |      |      |
| Confl. Bikes (#/hr)     |      |      |      |      |       | 4    |       |       |        |      |      |       |      |      |      |
| Peak Hour Factor        | 0.92 | 0.92 | 0.92 | 0.84 | 0.84  | 0.84 | 0.93  | 0.93  | 0.93   | 0.88 | 0.88 | 0.88  |      |      |      |
| Heavy Vehicles (%)      | 0%   | 0%   | 0%   | 0%   | 2%    | 7%   | 3%    | 2%    | 2%     | 0%   | 0%   | 2%    |      |      |      |
| Shared Lane Traffic (%) |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Lane Group Flow (vph)   | 0    | 0    | 0    | 0    | 816   | 0    | 0     | 204   | 763    | 0    | 0    | 267   |      |      |      |
| Turn Type               |      |      |      |      | NA    |      | Split | NA    | custom |      |      | Prot  |      |      |      |
| Protected Phases        |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |      | 4     | 7    | 8    | 9    |
| Permitted Phases        |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Detector Phase          |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |      | 4     |      |      |      |
| Switch Phase            |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Minimum Initial (s)     |      |      |      |      | 6.0   |      | 6.0   | 6.0   |        |      |      | 6.0   | 2.0  | 2.0  | 5.0  |
| Minimum Split (s)       |      |      |      |      | 17.5  |      | 19.5  | 19.5  |        |      |      | 10.0  | 4.0  | 4.0  | 27.0 |
| Total Split (s)         |      |      |      |      | 32.0  |      | 25.0  | 25.0  |        |      |      | 27.0  | 4.0  | 4.0  | 28.0 |
| Total Split (%)         |      |      |      |      | 26.7% |      | 20.8% | 20.8% |        |      |      | 22.5% | 3%   | 3%   | 23%  |
| Yellow Time (s)         |      |      |      |      | 3.5   |      | 3.5   | 3.5   |        |      |      | 3.0   | 2.0  | 2.0  | 2.0  |
| All-Red Time (s)        |      |      |      |      | 4.5   |      | 4.5   | 4.5   |        |      |      | 1.0   | 0.0  | 0.0  | 3.0  |
| Lost Time Adjust (s)    |      |      |      |      | 0.0   |      | 0.0   | 0.0   |        |      |      | 0.0   |      |      |      |
| Total Lost Time (s)     |      |      |      |      | 8.0   |      | 8.0   | 8.0   |        |      |      | 4.0   |      |      |      |
| Lead/Lag                |      |      |      |      | Lag   |      | Lag   | Lag   |        |      |      |       | Lead | Lead |      |
| Lead-Lag Optimize?      |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Recall Mode             |      |      |      |      | C-Min |      | None  | None  |        |      |      | None  | Min  | Min  | None |
| Act Effect Green (s)    |      |      |      |      | 46.6  |      |       | 17.0  | 87.6   |      |      | 20.0  |      |      |      |
| Actuated g/C Ratio      |      |      |      |      | 0.39  |      |       | 0.14  | 0.73   |      |      | 0.17  |      |      |      |
| v/c Ratio               |      |      |      |      | 0.61  |      |       | 0.51  | 0.66   |      |      | 0.34  |      |      |      |
| Control Delay           |      |      |      |      | 30.5  |      |       | 16.6  | 11.3   |      |      | 1.2   |      |      |      |
| Queue Delay             |      |      |      |      | 1.4   |      |       | 0.0   | 11.6   |      |      | 0.0   |      |      |      |
| Total Delay             |      |      |      |      | 31.9  |      |       | 16.6  | 22.8   |      |      | 1.2   |      |      |      |
| LOS                     |      |      |      |      | C     |      |       | B     | C      |      |      | A     |      |      |      |
| Approach Delay          |      |      |      |      | 31.9  |      |       | 21.5  |        |      | 1.2  |       |      |      |      |
| Approach LOS            |      |      |      |      | C     |      |       | C     |        |      | A    |       |      |      |      |
| Queue Length 50th (ft)  |      |      |      |      | 250   |      |       | 28    | 97     |      |      | 0     |      |      |      |
| Queue Length 95th (ft)  |      |      |      |      | #456  |      |       | 101   | #530   |      |      | 0     |      |      |      |
| Internal Link Dist (ft) |      | 20   |      |      | 256   |      |       | 353   |        |      | 453  |       |      |      |      |
| Turn Bay Length (ft)    |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Base Capacity (vph)     |      |      |      |      | 1344  |      |       | 401   | 1195   |      |      | 809   |      |      |      |
| Starvation Cap Reductn  |      |      |      |      | 321   |      |       | 0     | 0      |      |      | 0     |      |      |      |
| Spillback Cap Reductn   |      |      |      |      | 0     |      |       | 0     | 411    |      |      | 0     |      |      |      |
| Storage Cap Reductn     |      |      |      |      | 0     |      |       | 0     | 0      |      |      | 0     |      |      |      |
| Reduced v/c Ratio       |      |      |      |      | 0.80  |      |       | 0.51  | 0.97   |      |      | 0.33  |      |      |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 5 (4%), Referenced to phase 2:WBT, Start of Yellow  
 Natural Cycle: 95  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.66  
 Intersection Signal Delay: 23.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 60.6%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Washington Street & Elm Street





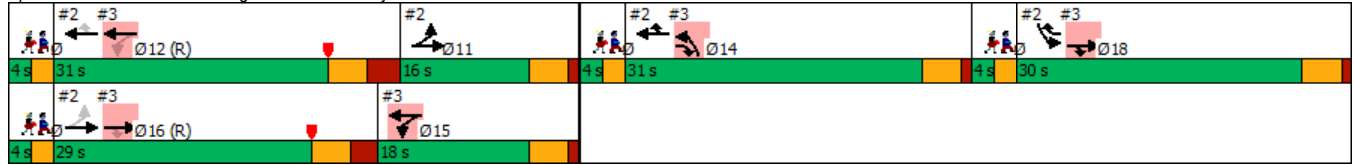
| Lane Group              | EBL    | EBT   | WBT   | WBR    | SBL   | SBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø12   | Ø14  | Ø15  | Ø16   |
|-------------------------|--------|-------|-------|--------|-------|------|------|------|------|------|-------|------|------|-------|
| Lane Configurations     | ↖      | ↗     | ↖     | ↖      | ↖↗    | ↖    |      |      |      |      |       |      |      |       |
| Traffic Volume (vph)    | 170    | 540   | 585   | 235    | 350   | 100  |      |      |      |      |       |      |      |       |
| Future Volume (vph)     | 170    | 540   | 585   | 235    | 350   | 100  |      |      |      |      |       |      |      |       |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900   | 1900  | 1900 |      |      |      |      |       |      |      |       |
| Storage Length (ft)     | 200    |       |       | 0      | 100   | 0    |      |      |      |      |       |      |      |       |
| Storage Lanes           | 1      |       |       | 1      | 1     | 0    |      |      |      |      |       |      |      |       |
| Taper Length (ft)       | 25     |       |       |        | 25    |      |      |      |      |      |       |      |      |       |
| Satd. Flow (prot)       | 1787   | 1863  | 1845  | 1599   | 3365  | 0    |      |      |      |      |       |      |      |       |
| Flt Permitted           | 0.174  |       |       |        | 0.963 |      |      |      |      |      |       |      |      |       |
| Satd. Flow (perm)       | 327    | 1863  | 1845  | 1519   | 3365  | 0    |      |      |      |      |       |      |      |       |
| Right Turn on Red       |        |       |       | Yes    |       | Yes  |      |      |      |      |       |      |      |       |
| Satd. Flow (RTOR)       |        |       |       | 247    | 29    |      |      |      |      |      |       |      |      |       |
| Link Speed (mph)        |        | 30    | 30    |        | 30    |      |      |      |      |      |       |      |      |       |
| Link Distance (ft)      |        | 336   | 185   |        | 438   |      |      |      |      |      |       |      |      |       |
| Travel Time (s)         |        | 7.6   | 4.2   |        | 10.0  |      |      |      |      |      |       |      |      |       |
| Confl. Peds. (#/hr)     |        |       |       | 7      |       | 18   |      |      |      |      |       |      |      |       |
| Confl. Bikes (#/hr)     |        |       |       | 3      |       |      |      |      |      |      |       |      |      |       |
| Peak Hour Factor        | 0.85   | 0.85  | 0.95  | 0.95   | 0.92  | 0.92 |      |      |      |      |       |      |      |       |
| Heavy Vehicles (%)      | 1%     | 2%    | 3%    | 1%     | 0%    | 0%   |      |      |      |      |       |      |      |       |
| Shared Lane Traffic (%) |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Lane Group Flow (vph)   | 200    | 635   | 616   | 247    | 489   | 0    |      |      |      |      |       |      |      |       |
| Turn Type               | custom | NA    | NA    | custom | Prot  |      |      |      |      |      |       |      |      |       |
| Protected Phases        | 11     | 11 16 | 12 14 | 14 18  | 18    |      | 2    | 4    | 6    | 8    | 12    | 14   | 15   | 16    |
| Permitted Phases        | 16     |       |       | 12     |       |      |      |      |      |      |       |      |      |       |
| Detector Phase          | 11     | 11 16 | 12 14 | 14 18  | 18    |      |      |      |      |      |       |      |      |       |
| Switch Phase            |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Minimum Initial (s)     | 8.0    |       |       |        | 8.0   |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0   | 8.0  | 8.0  | 8.0   |
| Minimum Split (s)       | 12.5   |       |       |        | 20.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 15.0  | 19.0 | 12.5 | 16.5  |
| Total Split (s)         | 16.0   |       |       |        | 30.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 31.0  | 31.0 | 18.0 | 29.0  |
| Total Split (%)         | 13.3%  |       |       |        | 25.0% |      | 3%   | 3%   | 3%   | 3%   | 26%   | 26%  | 15%  | 24%   |
| Yellow Time (s)         | 3.5    |       |       |        | 3.5   |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5   | 3.5  | 3.5  | 3.5   |
| All-Red Time (s)        | 1.0    |       |       |        | 1.0   |      | 0.0  | 0.0  | 0.0  | 0.0  | 3.0   | 1.0  | 1.0  | 2.5   |
| Lost Time Adjust (s)    | 0.0    |       |       |        | 0.0   |      |      |      |      |      |       |      |      |       |
| Total Lost Time (s)     | 4.5    |       |       |        | 4.5   |      |      |      |      |      |       |      |      |       |
| Lead/Lag                |        |       |       |        | Lag   |      | Lead | Lead | Lead | Lead | Lag   | Lag  |      | Lag   |
| Lead-Lag Optimize?      |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Recall Mode             | None   |       |       |        | None  |      | Min  | Min  | Min  | Min  | C-Min | None | None | C-Min |
| Act Effect Green (s)    | 36.0   | 36.0  | 48.4  | 77.8   | 25.4  |      |      |      |      |      |       |      |      |       |
| Actuated g/C Ratio      | 0.30   | 0.30  | 0.40  | 0.65   | 0.21  |      |      |      |      |      |       |      |      |       |
| v/c Ratio               | 0.84   | 1.14  | 0.83  | 0.22   | 0.67  |      |      |      |      |      |       |      |      |       |
| Control Delay           | 74.3   | 117.7 | 11.2  | 1.7    | 45.8  |      |      |      |      |      |       |      |      |       |
| Queue Delay             | 0.0    | 0.4   | 51.0  | 0.8    | 1.7   |      |      |      |      |      |       |      |      |       |
| Total Delay             | 74.3   | 118.1 | 62.2  | 2.4    | 47.5  |      |      |      |      |      |       |      |      |       |
| LOS                     | E      | F     | E     | A      | D     |      |      |      |      |      |       |      |      |       |
| Approach Delay          |        | 107.6 | 45.1  |        | 47.5  |      |      |      |      |      |       |      |      |       |
| Approach LOS            |        | F     | D     |        | D     |      |      |      |      |      |       |      |      |       |
| Queue Length 50th (ft)  | 120    | ~592  | 189   | 16     | 170   |      |      |      |      |      |       |      |      |       |
| Queue Length 95th (ft)  | #209   | #573  | m163  | m14    | 228   |      |      |      |      |      |       |      |      |       |
| Internal Link Dist (ft) |        | 256   | 105   |        | 358   |      |      |      |      |      |       |      |      |       |
| Turn Bay Length (ft)    | 200    |       |       |        | 100   |      |      |      |      |      |       |      |      |       |
| Base Capacity (vph)     | 238    | 558   | 753   | 1113   | 737   |      |      |      |      |      |       |      |      |       |
| Starvation Cap Reductn  | 0      | 25    | 209   | 585    | 0     |      |      |      |      |      |       |      |      |       |
| Spillback Cap Reductn   | 0      | 17    | 88    | 0      | 117   |      |      |      |      |      |       |      |      |       |
| Storage Cap Reductn     | 0      | 0     | 0     | 0      | 0     |      |      |      |      |      |       |      |      |       |
| Reduced v/c Ratio       | 0.84   | 1.19  | 1.13  | 0.47   | 0.79  |      |      |      |      |      |       |      |      |       |

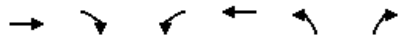
**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.18  
 Intersection Signal Delay: 69.5  
 Intersection Capacity Utilization 66.6%  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Washington Street & Cherry Street



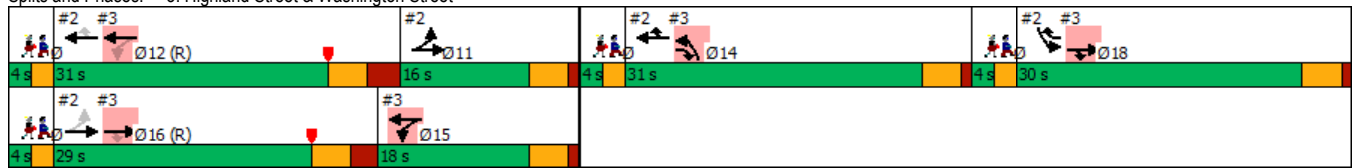


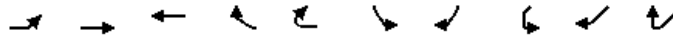
| Lane Group              | EBT   | EBR    | WBL    | WBT   | NBL   | NBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø11  | Ø12   | Ø16   | Ø18  |
|-------------------------|-------|--------|--------|-------|-------|------|------|------|------|------|------|-------|-------|------|
| Lane Configurations     | ↑↑    | ↑      | ↓      | ↑     | ↓     |      |      |      |      |      |      |       |       |      |
| Traffic Volume (vph)    | 685   | 205    | 105    | 580   | 240   | 40   |      |      |      |      |      |       |       |      |
| Future Volume (vph)     | 685   | 205    | 105    | 580   | 240   | 40   |      |      |      |      |      |       |       |      |
| Ideal Flow (vphpl)      | 1900  | 1900   | 1900   | 1900  | 1900  | 1900 |      |      |      |      |      |       |       |      |
| Storage Length (ft)     |       | 85     | 0      |       | 0     | 0    |      |      |      |      |      |       |       |      |
| Storage Lanes           |       | 1      | 1      |       | 1     | 0    |      |      |      |      |      |       |       |      |
| Taper Length (ft)       |       |        | 25     |       | 25    |      |      |      |      |      |      |       |       |      |
| Satd. Flow (prot)       | 3539  | 1615   | 1787   | 1845  | 1751  | 0    |      |      |      |      |      |       |       |      |
| Flt Permitted           |       |        | 0.163  |       | 0.959 |      |      |      |      |      |      |       |       |      |
| Satd. Flow (perm)       | 3539  | 1511   | 307    | 1845  | 1751  | 0    |      |      |      |      |      |       |       |      |
| Right Turn on Red       |       | Yes    |        |       |       | Yes  |      |      |      |      |      |       |       |      |
| Satd. Flow (RTOR)       |       | 208    |        |       | 6     |      |      |      |      |      |      |       |       |      |
| Link Speed (mph)        | 30    |        |        | 30    | 30    |      |      |      |      |      |      |       |       |      |
| Link Distance (ft)      | 185   |        |        | 301   | 145   |      |      |      |      |      |      |       |       |      |
| Travel Time (s)         | 4.2   |        |        | 6.8   | 3.3   |      |      |      |      |      |      |       |       |      |
| Confl. Peds. (#/hr)     |       | 11     |        |       |       | 6    |      |      |      |      |      |       |       |      |
| Peak Hour Factor        | 0.87  | 0.87   | 0.89   | 0.89  | 0.85  | 0.85 |      |      |      |      |      |       |       |      |
| Heavy Vehicles (%)      | 2%    | 0%     | 1%     | 3%    | 2%    | 0%   |      |      |      |      |      |       |       |      |
| Shared Lane Traffic (%) |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Lane Group Flow (vph)   | 787   | 236    | 118    | 652   | 329   | 0    |      |      |      |      |      |       |       |      |
| Turn Type               | NA    | custom | custom | NA    | Prot  |      |      |      |      |      |      |       |       |      |
| Protected Phases        | 16 18 | 14 18  | 15     | 12 15 | 14    |      | 2    | 4    | 6    | 8    | 11   | 12    | 16    | 18   |
| Permitted Phases        |       | 16     | 12     |       |       |      |      |      |      |      |      |       |       |      |
| Detector Phase          | 16 18 | 14 18  | 15     | 12 15 | 14    |      |      |      |      |      |      |       |       |      |
| Switch Phase            |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Minimum Initial (s)     |       |        | 8.0    |       | 8.0   |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0  | 8.0   | 8.0   | 8.0  |
| Minimum Split (s)       |       |        | 12.5   |       | 19.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 12.5 | 15.0  | 16.5  | 20.0 |
| Total Split (s)         |       |        | 18.0   |       | 31.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 16.0 | 31.0  | 29.0  | 30.0 |
| Total Split (%)         |       |        | 15.0%  |       | 25.8% |      | 3%   | 3%   | 3%   | 3%   | 13%  | 26%   | 24%   | 25%  |
| Yellow Time (s)         |       |        | 3.5    |       | 3.5   |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5  | 3.5   | 3.5   | 3.5  |
| All-Red Time (s)        |       |        | 1.0    |       | 1.0   |      | 0.0  | 0.0  | 0.0  | 0.0  | 1.0  | 3.0   | 2.5   | 1.0  |
| Lost Time Adjust (s)    |       |        | 0.0    |       | 0.0   |      |      |      |      |      |      |       |       |      |
| Total Lost Time (s)     |       |        | 4.5    |       | 4.5   |      |      |      |      |      |      |       |       |      |
| Lead/Lag                |       |        |        |       | Lag   |      | Lead | Lead | Lead | Lead |      | Lag   | Lag   | Lag  |
| Lead-Lag Optimize?      |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Recall Mode             |       |        | None   |       | None  |      | Min  | Min  | Min  | Min  | None | C-Min | C-Min | None |
| Act Effct Green (s)     | 46.9  | 75.8   | 40.0   | 36.0  | 25.9  |      |      |      |      |      |      |       |       |      |
| Actuated g/C Ratio      | 0.39  | 0.63   | 0.33   | 0.30  | 0.22  |      |      |      |      |      |      |       |       |      |
| v/c Ratio               | 0.57  | 0.22   | 0.44   | 1.18  | 0.86  |      |      |      |      |      |      |       |       |      |
| Control Delay           | 17.4  | 1.7    | 47.6   | 131.6 | 66.6  |      |      |      |      |      |      |       |       |      |
| Queue Delay             | 2.8   | 0.6    | 0.0    | 0.9   | 4.2   |      |      |      |      |      |      |       |       |      |
| Total Delay             | 20.2  | 2.4    | 47.6   | 132.4 | 70.8  |      |      |      |      |      |      |       |       |      |
| LOS                     | C     | A      | D      | F     | E     |      |      |      |      |      |      |       |       |      |
| Approach Delay          | 16.1  |        |        | 119.4 | 70.8  |      |      |      |      |      |      |       |       |      |
| Approach LOS            | B     |        |        | F     | E     |      |      |      |      |      |      |       |       |      |
| Queue Length 50th (ft)  | 107   | 13     | 65     | ~474  | 241   |      |      |      |      |      |      |       |       |      |
| Queue Length 95th (ft)  | m104  | m16    | m96    | #688  | #355  |      |      |      |      |      |      |       |       |      |
| Internal Link Dist (ft) | 105   |        |        | 221   | 65    |      |      |      |      |      |      |       |       |      |
| Turn Bay Length (ft)    |       | 85     |        |       |       |      |      |      |      |      |      |       |       |      |
| Base Capacity (vph)     | 1386  | 1083   | 268    | 553   | 391   |      |      |      |      |      |      |       |       |      |
| Starvation Cap Reductn  | 465   | 543    | 0      | 56    | 0     |      |      |      |      |      |      |       |       |      |
| Spillback Cap Reductn   | 283   | 0      | 0      | 48    | 26    |      |      |      |      |      |      |       |       |      |
| Storage Cap Reductn     | 0     | 0      | 0      | 0     | 0     |      |      |      |      |      |      |       |       |      |
| Reduced v/c Ratio       | 0.85  | 0.44   | 0.44   | 1.31  | 0.90  |      |      |      |      |      |      |       |       |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.18  
 Intersection Signal Delay: 62.1 Intersection LOS: E  
 Intersection Capacity Utilization 55.5% ICU Level of Service B  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Highland Street & Washington Street



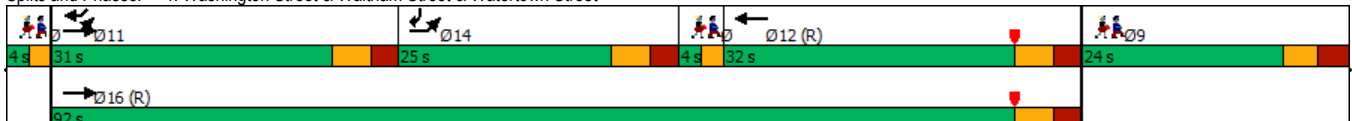


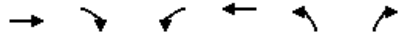
| Lane Group              | EBL   | EBT   | WBT   | WBR  | WBR2 | SBL  | SBR   | SWL  | SWR   | SWR2 | Ø1  | Ø2  | Ø9   | Ø16   |
|-------------------------|-------|-------|-------|------|------|------|-------|------|-------|------|-----|-----|------|-------|
| Lane Configurations     |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Traffic Volume (vph)    | 320   | 405   | 245   | 205  | 5    | 0    | 155   | 0    | 285   | 40   |     |     |      |       |
| Future Volume (vph)     | 320   | 405   | 245   | 205  | 5    | 0    | 155   | 0    | 285   | 40   |     |     |      |       |
| Ideal Flow (vphpl)      | 1900  | 1900  | 1900  | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900 |     |     |      |       |
| Satd. Flow (prot)       | 1770  | 1863  | 3008  | 0    | 0    | 0    | 1627  | 0    | 1615  | 0    |     |     |      |       |
| Fit Permitted           | 0.950 |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Satd. Flow (perm)       | 1770  | 1863  | 3008  | 0    | 0    | 0    | 1627  | 0    | 1615  | 0    |     |     |      |       |
| Right Turn on Red       |       |       |       |      | Yes  |      | Yes   |      |       | No   |     |     |      |       |
| Satd. Flow (RTOR)       |       |       | 1     |      |      |      | 437   |      |       |      |     |     |      |       |
| Link Speed (mph)        |       | 30    | 30    |      |      |      | 30    |      | 30    |      |     |     |      |       |
| Link Distance (ft)      |       | 301   | 274   |      |      |      | 478   |      | 461   |      |     |     |      |       |
| Travel Time (s)         |       | 6.8   | 6.2   |      |      |      | 10.9  |      | 10.5  |      |     |     |      |       |
| Confl. Peds. (#/hr)     |       |       |       |      |      | 17   |       |      |       | 25   |     |     |      |       |
| Confl. Bikes (#/hr)     |       |       |       | 1    | 1    |      |       |      |       | 3    |     |     |      |       |
| Peak Hour Factor        | 0.90  | 0.90  | 0.92  | 0.92 | 0.92 | 0.87 | 0.87  | 0.83 | 0.83  | 0.83 |     |     |      |       |
| Heavy Vehicles (%)      | 2%    | 2%    | 4%    | 1%   | 0%   | 0%   | 1%    | 0%   | 2%    | 0%   |     |     |      |       |
| Shared Lane Traffic (%) |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Lane Group Flow (vph)   | 356   | 450   | 494   | 0    | 0    | 0    | 178   | 0    | 391   | 0    |     |     |      |       |
| Turn Type               | Prot  | NA    | NA    |      |      |      | Prot  |      | Over  |      |     |     |      |       |
| Protected Phases        | 11 14 | 11 16 | 12    |      |      |      | 14    |      | 11    |      | 1   | 2   | 9    | 16    |
| Permitted Phases        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Detector Phase          | 11 14 | 11 16 | 12    |      |      |      | 14    |      | 11    |      |     |     |      |       |
| Switch Phase            |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Minimum Initial (s)     |       |       | 6.0   |      |      |      | 6.0   |      | 6.0   |      | 2.0 | 2.0 | 5.0  | 6.0   |
| Minimum Split (s)       |       |       | 12.5  |      |      |      | 12.0  |      | 15.5  |      | 4.0 | 4.0 | 23.0 | 12.0  |
| Total Split (s)         |       |       | 32.0  |      |      |      | 25.0  |      | 31.0  |      | 4.0 | 4.0 | 24.0 | 92.0  |
| Total Split (%)         |       |       | 26.7% |      |      |      | 20.8% |      | 25.8% |      | 3%  | 3%  | 20%  | 77%   |
| Yellow Time (s)         |       |       | 3.5   |      |      |      | 3.5   |      | 3.5   |      | 2.0 | 2.0 | 3.0  | 3.5   |
| All-Red Time (s)        |       |       | 2.5   |      |      |      | 2.5   |      | 2.5   |      | 0.0 | 0.0 | 3.0  | 2.5   |
| Lost Time Adjust (s)    |       |       | 0.0   |      |      |      | 0.0   |      | 0.0   |      |     |     |      |       |
| Total Lost Time (s)     |       |       | 6.0   |      |      |      | 6.0   |      | 6.0   |      |     |     |      |       |
| Lead/Lag                |       |       | Lag   |      |      |      | Lag   |      | Lead  |      |     |     | Lead |       |
| Lead-Lag Optimize?      |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Recall Mode             |       |       | C-Min |      |      |      | None  |      | None  |      | Min | Min | None | C-Min |
| Act Effct Green (s)     | 53.6  | 98.3  | 31.2  |      |      |      | 8.4   |      | 39.2  |      |     |     |      |       |
| Actuated g/C Ratio      | 0.45  | 0.82  | 0.26  |      |      |      | 0.07  |      | 0.33  |      |     |     |      |       |
| v/c Ratio               | 0.45  | 0.29  | 0.63  |      |      |      | 0.34  |      | 0.74  |      |     |     |      |       |
| Control Delay           | 50.6  | 5.3   | 47.1  |      |      |      | 1.8   |      | 48.4  |      |     |     |      |       |
| Queue Delay             | 7.8   | 1.0   | 40.3  |      |      |      | 0.7   |      | 5.7   |      |     |     |      |       |
| Total Delay             | 58.4  | 6.2   | 87.4  |      |      |      | 2.5   |      | 54.1  |      |     |     |      |       |
| LOS                     | E     | A     | F     |      |      |      | A     |      | D     |      |     |     |      |       |
| Approach Delay          |       | 29.3  | 87.4  |      |      | 2.5  |       | 54.1 |       |      |     |     |      |       |
| Approach LOS            |       | C     | F     |      |      | A    |       | D    |       |      |     |     |      |       |
| Queue Length 50th (ft)  | 280   | 90    | 191   |      |      |      | 0     |      | 240   |      |     |     |      |       |
| Queue Length 95th (ft)  | m355  | m109  | 256   |      |      |      | 0     |      | #490  |      |     |     |      |       |
| Internal Link Dist (ft) |       | 221   | 194   |      |      | 398  |       | 381  |       |      |     |     |      |       |
| Turn Bay Length (ft)    |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Base Capacity (vph)     | 946   | 1526  | 783   |      |      |      | 625   |      | 527   |      |     |     |      |       |
| Starvation Cap Reductn  | 539   | 787   | 252   |      |      |      | 0     |      | 0     |      |     |     |      |       |
| Spillback Cap Reductn   | 0     | 91    | 318   |      |      |      | 222   |      | 88    |      |     |     |      |       |
| Storage Cap Reductn     | 0     | 0     | 0     |      |      |      | 0     |      | 0     |      |     |     |      |       |
| Reduced v/c Ratio       | 0.87  | 0.61  | 1.06  |      |      |      | 0.44  |      | 0.89  |      |     |     |      |       |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 113 (94%), Referenced to phase 12:WBT and 16:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 47.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 59.0%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Washington Street & Waltham Street & Watertown Street



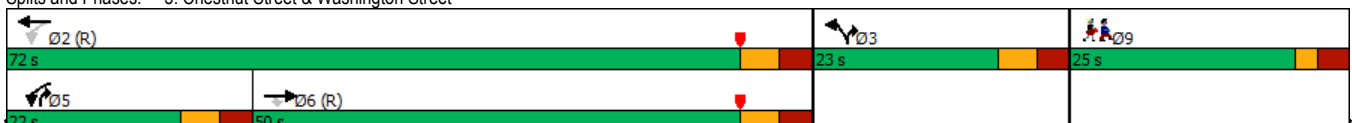


| Lane Group              | EBT   | EBR   | WBL   | WBT   | NBL   | NBR   | Ø9   |
|-------------------------|-------|-------|-------|-------|-------|-------|------|
| Lane Configurations     | ↑     | ↑     | ↑     | ↑     | ↑     | ↑     |      |
| Traffic Volume (vph)    | 375   | 30    | 235   | 355   | 100   | 180   |      |
| Future Volume (vph)     | 375   | 30    | 235   | 355   | 100   | 180   |      |
| Ideal Flow (vphpl)      | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Storage Length (ft)     |       | 35    | 0     |       | 0     | 150   |      |
| Storage Lanes           |       | 1     | 1     |       | 1     | 1     |      |
| Taper Length (ft)       |       |       | 25    |       | 25    |       |      |
| Satd. Flow (prot)       | 1863  | 1615  | 1805  | 1845  | 1787  | 1599  |      |
| Flt Permitted           |       |       | 0.391 |       | 0.950 |       |      |
| Satd. Flow (perm)       | 1863  | 1615  | 743   | 1845  | 1787  | 1599  |      |
| Right Turn on Red       |       | Yes   |       |       |       | Yes   |      |
| Satd. Flow (RTOR)       |       | 9     |       |       |       | 191   |      |
| Link Speed (mph)        | 30    |       |       | 30    | 30    |       |      |
| Link Distance (ft)      | 274   |       |       | 584   | 336   |       |      |
| Travel Time (s)         | 6.2   |       |       | 13.3  | 7.6   |       |      |
| Peak Hour Factor        | 0.89  | 0.89  | 0.95  | 0.95  | 0.94  | 0.94  |      |
| Heavy Vehicles (%)      | 2%    | 0%    | 0%    | 3%    | 1%    | 1%    |      |
| Shared Lane Traffic (%) |       |       |       |       |       |       |      |
| Lane Group Flow (vph)   | 421   | 34    | 247   | 374   | 106   | 191   |      |
| Turn Type               | NA    | Perm  | pm+pt | NA    | Prot  | pt+ov |      |
| Protected Phases        | 6     |       | 5     | 2     | 3     | 3.5   | 9    |
| Permitted Phases        |       | 6     | 2     |       |       |       |      |
| Detector Phase          | 6     | 6     | 5     | 2     | 3     | 3.5   |      |
| Switch Phase            |       |       |       |       |       |       |      |
| Minimum Initial (s)     | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   |       | 5.0  |
| Minimum Split (s)       | 12.5  | 12.5  | 12.5  | 12.5  | 12.5  |       | 24.0 |
| Total Split (s)         | 50.0  | 50.0  | 22.0  | 72.0  | 23.0  |       | 25.0 |
| Total Split (%)         | 41.7% | 41.7% | 18.3% | 60.0% | 19.2% |       | 21%  |
| Yellow Time (s)         | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   |       | 2.0  |
| All-Red Time (s)        | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   |       | 3.0  |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |       |      |
| Total Lost Time (s)     | 6.5   | 6.5   | 6.5   | 6.5   | 6.5   |       |      |
| Lead/Lag                | Lag   | Lag   | Lead  |       |       |       |      |
| Lead-Lag Optimize?      |       |       |       |       |       |       |      |
| Recall Mode             | C-Min | C-Min | None  | C-Min | None  |       | None |
| Act Effect Green (s)    | 67.0  | 67.0  | 85.0  | 85.0  | 12.4  | 27.8  |      |
| Actuated g/C Ratio      | 0.56  | 0.56  | 0.71  | 0.71  | 0.10  | 0.23  |      |
| v/c Ratio               | 0.40  | 0.04  | 0.39  | 0.29  | 0.58  | 0.37  |      |
| Control Delay           | 13.5  | 8.6   | 10.6  | 9.8   | 63.0  | 4.7   |      |
| Queue Delay             | 1.3   | 0.0   | 0.0   | 0.1   | 0.0   | 0.0   |      |
| Total Delay             | 14.8  | 8.6   | 10.6  | 9.9   | 63.0  | 4.7   |      |
| LOS                     | B     | A     | B     | A     | E     | A     |      |
| Approach Delay          | 14.3  |       |       | 10.2  | 25.5  |       |      |
| Approach LOS            | B     |       |       | B     | C     |       |      |
| Queue Length 50th (ft)  | 116   | 2     | 39    | 63    | 79    | 0     |      |
| Queue Length 95th (ft)  | 396   | 16    | 145   | 225   | 134   | 34    |      |
| Internal Link Dist (ft) | 194   |       |       | 504   | 256   |       |      |
| Turn Bay Length (ft)    |       | 35    |       |       |       | 150   |      |
| Base Capacity (vph)     | 1043  | 908   | 665   | 1306  | 247   | 565   |      |
| Starvation Cap Reductn  | 410   | 0     | 0     | 0     | 0     | 0     |      |
| Spillback Cap Reductn   | 0     | 0     | 0     | 221   | 0     | 0     |      |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     | 0     |      |
| Reduced v/c Ratio       | 0.67  | 0.04  | 0.37  | 0.34  | 0.43  | 0.34  |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 7 (6%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.58  
 Intersection Signal Delay: 14.9  
 Intersection LOS: B  
 Intersection Capacity Utilization 54.5%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 5: Chestnut Street & Washington Street



| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 0      |        |        |      |      |      |
| Movement                 | WBL    | WBR    | NBT    | NBR  | SBL  | SBT  |
| Lane Configurations      | W      |        | T      |      |      | T    |
| Traffic Vol, veh/h       | 0      | 0      | 280    | 0    | 0    | 310  |
| Future Vol, veh/h        | 0      | 0      | 280    | 0    | 0    | 310  |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 3    | 3    | 0    |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | 0      | -    | -    | 0    |
| Grade, %                 | 0      | -      | 0      | -    | -    | 0    |
| Peak Hour Factor         | 92     | 92     | 80     | 80   | 88   | 88   |
| Heavy Vehicles, %        | 0      | 0      | 0      | 0    | 0    | 1    |
| Mvmt Flow                | 0      | 0      | 350    | 0    | 0    | 352  |
| Major/Minor              | Minor1 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 705    | 353    | 0      | 0    | 353  | 0    |
| Stage 1                  | 353    | -      | -      | -    | -    | -    |
| Stage 2                  | 352    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.4    | 6.2    | -      | -    | 4.1  | -    |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 3.3    | -      | -    | 2.2  | -    |
| Pot Cap-1 Maneuver       | 406    | 695    | -      | -    | 1217 | -    |
| Stage 1                  | 716    | -      | -      | -    | -    | -    |
| Stage 2                  | 716    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        | -      | -    | -    | -    |
| Mov Cap-1 Maneuver       | 405    | 693    | -      | -    | 1214 | -    |
| Mov Cap-2 Maneuver       | 405    | -      | -      | -    | -    | -    |
| Stage 1                  | 714    | -      | -      | -    | -    | -    |
| Stage 2                  | 716    | -      | -      | -    | -    | -    |
| Approach                 | WB     | NB     |        | SB   |      |      |
| HCM Control Delay, s     | 0      | 0      |        | 0    |      |      |
| HCM LOS                  | A      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBR    | WBLn1  | SBL  | SBT  |      |
| Capacity (veh/h)         | -      | -      | -      | 1214 | -    |      |
| HCM Lane V/C Ratio       | -      | -      | -      | -    | -    |      |
| HCM Control Delay (s)    | -      | -      | 0      | 0    | -    |      |
| HCM Lane LOS             | -      | -      | A      | A    | -    |      |
| HCM 95th %tile Q(veh)    | -      | -      | -      | 0    | -    |      |



| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 0.1    |        |        |      |      |      |
| Movement                 | EBL    | EBR    | NBL    | NBT  | SBT  | SBR  |
| Lane Configurations      | W      |        |        | W    | W    |      |
| Traffic Vol, veh/h       | 0      | 1      | 5      | 280  | 305  | 5    |
| Future Vol, veh/h        | 0      | 1      | 5      | 280  | 305  | 5    |
| Conflicting Peds, #/hr   | 0      | 0      | 21     | 0    | 0    | 21   |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | -      | 0    | 0    | -    |
| Grade, %                 | 0      | -      | -      | 0    | 0    | -    |
| Peak Hour Factor         | 25     | 25     | 80     | 80   | 88   | 88   |
| Heavy Vehicles, %        | 0      | 0      | 0      | 0    | 1    | 0    |
| Mvmt Flow                | 0      | 4      | 6      | 350  | 347  | 6    |
| Major/Minor              | Minor2 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 733    | 371    | 374    | 0    | -    | 0    |
| Stage 1                  | 371    | -      | -      | -    | -    | -    |
| Stage 2                  | 362    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.4    | 6.2    | 4.1    | -    | -    | -    |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 3.3    | 2.2    | -    | -    | -    |
| Pot Cap-1 Maneuver       | 391    | 679    | 1196   | -    | -    | -    |
| Stage 1                  | 702    | -      | -      | -    | -    | -    |
| Stage 2                  | 709    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        |        | -    | -    | -    |
| Mov Cap-1 Maneuver       | 373    | 665    | 1172   | -    | -    | -    |
| Mov Cap-2 Maneuver       | 373    | -      | -      | -    | -    | -    |
| Stage 1                  | 684    | -      | -      | -    | -    | -    |
| Stage 2                  | 695    | -      | -      | -    | -    | -    |
| Approach                 | EB     | NB     |        | SB   |      |      |
| HCM Control Delay, s     | 10.4   | 0.1    |        | 0    |      |      |
| HCM LOS                  | B      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1  | SBT  | SBR  |      |
| Capacity (veh/h)         | 1172   | -      | 665    | -    | -    |      |
| HCM Lane V/C Ratio       | 0.005  | -      | 0.006  | -    | -    |      |
| HCM Control Delay (s)    | 8.1    | 0      | 10.4   | -    | -    |      |
| HCM Lane LOS             | A      | A      | B      | -    | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | 0      | -    | -    |      |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.1  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 10   | 1    | 5    | 0    | 1    | 60   | 0    | 215  | 30   | 25   | 280  | 0    |
| Future Vol, veh/h        | 10   | 1    | 5    | 0    | 1    | 60   | 0    | 215  | 30   | 25   | 280  | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 1    | 0    | 0    | 1    | 3    | 0    | 3    | 3    | 0    | 3    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 54   | 54   | 54   | 70   | 70   | 70   | 80   | 80   | 80   | 88   | 88   | 88   |
| Heavy Vehicles, %        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    |
| Mvmt Flow                | 19   | 2    | 9    | 0    | 1    | 86   | 0    | 269  | 38   | 28   | 318  | 0    |

| Major/Minor          | Minor2 |     | Minor1 |   | Major1 |     |      | Major2 |   |      |   |   |
|----------------------|--------|-----|--------|---|--------|-----|------|--------|---|------|---|---|
| Conflicting Flow All | 710    | 687 | 322    | - | 668    | 292 | 321  | 0      | 0 | 310  | 0 | 0 |
| Stage 1              | 377    | 377 | -      | - | 291    | -   | -    | -      | - | -    | - | - |
| Stage 2              | 333    | 310 | -      | - | 377    | -   | -    | -      | - | -    | - | - |
| Critical Hdwy        | 7.1    | 6.5 | 6.2    | - | 6.5    | 6.2 | 4.1  | -      | - | 4.1  | - | - |
| Critical Hdwy Stg 1  | 6.1    | 5.5 | -      | - | 5.5    | -   | -    | -      | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.1    | 5.5 | -      | - | 5.5    | -   | -    | -      | - | -    | - | - |
| Follow-up Hdwy       | 3.5    | 4   | 3.3    | - | 4      | 3.3 | 2.2  | -      | - | 2.2  | - | - |
| Pot Cap-1 Maneuver   | 351    | 372 | 724    | 0 | 382    | 752 | 1250 | -      | - | 1262 | - | - |
| Stage 1              | 649    | 619 | -      | 0 | 675    | -   | -    | -      | - | -    | - | - |
| Stage 2              | 685    | 663 | -      | 0 | 619    | -   | -    | -      | - | -    | - | - |
| Platoon blocked, %   |        |     |        |   |        |     |      |        |   |      |   |   |
| Mov Cap-1 Maneuver   | 302    | 360 | 721    | - | 369    | 749 | 1246 | -      | - | 1258 | - | - |
| Mov Cap-2 Maneuver   | 302    | 360 | -      | - | 369    | -   | -    | -      | - | -    | - | - |
| Stage 1              | 647    | 600 | -      | - | 673    | -   | -    | -      | - | -    | - | - |
| Stage 2              | 605    | 661 | -      | - | 600    | -   | -    | -      | - | -    | - | - |

| Approach             | EB   | WB   | NB | SB  |
|----------------------|------|------|----|-----|
| HCM Control Delay, s | 15.5 | 10.5 | 0  | 0.6 |
| HCM LOS              | C    | B    |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1246 | -   | -   | 374   | 737   | 1258  | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.079 | 0.118 | 0.023 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 15.5  | 10.5  | 7.9   | 0   | -   |
| HCM Lane LOS          | A    | -   | -   | C     | B     | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0.3   | 0.4   | 0.1   | -   | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↔    |      | ↕    |      |
| Traffic Vol, veh/h       | 0    | 55   | 60   | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 55   | 60   | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 1    | 0    | 0    | 1    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 70   | 70   | 92   | 92   |
| Heavy Vehicles, %        | 0    | 0    | 0    | 0    | 0    | 0    |
| Mvmt Flow                | 0    | 69   | 86   | 0    | 0    | 0    |

| Major/Minor          | Major1 | Major2 | Minor2 |     |     |
|----------------------|--------|--------|--------|-----|-----|
| Conflicting Flow All | 87     | 0      | 0      | 156 | 87  |
| Stage 1              | -      | -      | -      | 87  | -   |
| Stage 2              | -      | -      | -      | 69  | -   |
| Critical Hdwy        | 4.1    | -      | -      | 6.4 | 6.2 |
| Critical Hdwy Stg 1  | -      | -      | -      | 5.4 | -   |
| Critical Hdwy Stg 2  | -      | -      | -      | 5.4 | -   |
| Follow-up Hdwy       | 2.2    | -      | -      | 3.5 | 3.3 |
| Pot Cap-1 Maneuver   | 1522   | -      | -      | 840 | 977 |
| Stage 1              | -      | -      | -      | 941 | -   |
| Stage 2              | -      | -      | -      | 959 | -   |
| Platoon blocked, %   | -      | -      | -      | -   | -   |
| Mov Cap-1 Maneuver   | 1521   | -      | -      | 838 | 976 |
| Mov Cap-2 Maneuver   | -      | -      | -      | 838 | -   |
| Stage 1              | -      | -      | -      | 940 | -   |
| Stage 2              | -      | -      | -      | 958 | -   |

| Approach             | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1521 | -   | -   | -   | -     |
| HCM Lane V/C Ratio    | -    | -   | -   | -   | -     |
| HCM Control Delay (s) | 0    | -   | -   | -   | 0     |
| HCM Lane LOS          | A    | -   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | -     |

| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 1.7    |        |        |      |      |      |
| Movement                 | EBL    | EBR    | NBL    | NBT  | SBT  | SBR  |
| Lane Configurations      | W      |        |        | W    | W    |      |
| Traffic Vol, veh/h       | 30     | 25     | 30     | 250  | 235  | 30   |
| Future Vol, veh/h        | 30     | 25     | 30     | 250  | 235  | 30   |
| Conflicting Peds, #/hr   | 0      | 3      | 8      | 0    | 0    | 8    |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | -      | 0    | 0    | -    |
| Grade, %                 | 0      | -      | -      | 0    | 0    | -    |
| Peak Hour Factor         | 80     | 80     | 94     | 94   | 86   | 86   |
| Heavy Vehicles, %        | 0      | 0      | 0      | 1    | 0    | 0    |
| Mvmt Flow                | 38     | 31     | 32     | 266  | 273  | 35   |
| Major/Minor              | Minor2 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 629    | 302    | 316    | 0    | -    | 0    |
| Stage 1                  | 299    | -      | -      | -    | -    | -    |
| Stage 2                  | 330    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.4    | 6.2    | 4.1    | -    | -    | -    |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 3.3    | 2.2    | -    | -    | -    |
| Pot Cap-1 Maneuver       | 449    | 742    | 1256   | -    | -    | -    |
| Stage 1                  | 757    | -      | -      | -    | -    | -    |
| Stage 2                  | 733    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        |        | -    | -    | -    |
| Mov Cap-1 Maneuver       | 429    | 734    | 1246   | -    | -    | -    |
| Mov Cap-2 Maneuver       | 429    | -      | -      | -    | -    | -    |
| Stage 1                  | 728    | -      | -      | -    | -    | -    |
| Stage 2                  | 727    | -      | -      | -    | -    | -    |
| Approach                 | EB     | NB     |        | SB   |      |      |
| HCM Control Delay, s     | 12.8   | 0.9    |        | 0    |      |      |
| HCM LOS                  | B      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1  | SBT  | SBR  |      |
| Capacity (veh/h)         | 1246   | -      | 529    | -    | -    |      |
| HCM Lane V/C Ratio       | 0.026  | -      | 0.13   | -    | -    |      |
| HCM Control Delay (s)    | 8      | 0      | 12.8   | -    | -    |      |
| HCM Lane LOS             | A      | A      | B      | -    | -    |      |
| HCM 95th %tile Q(veh)    | 0.1    | -      | 0.4    | -    | -    |      |

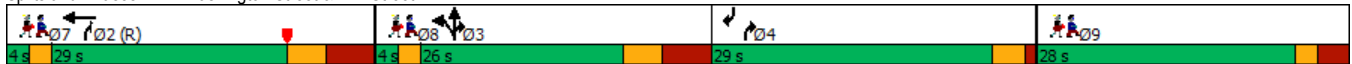


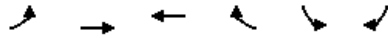
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL   | NBT   | NBR    | SBL  | SBT  | SBR   | Ø7   | Ø8   | Ø9   |
|-------------------------|------|------|------|------|-------|------|-------|-------|--------|------|------|-------|------|------|------|
| Lane Configurations     |      |      |      |      | ↕↕    |      |       | ↕     | ↕      |      |      | ↕     |      |      |      |
| Traffic Volume (vph)    | 0    | 0    | 0    | 0    | 610   | 35   | 25    | 140   | 785    | 0    | 0    | 325   |      |      |      |
| Future Volume (vph)     | 0    | 0    | 0    | 0    | 610   | 35   | 25    | 140   | 785    | 0    | 0    | 325   |      |      |      |
| Ideal Flow (vphpl)      | 1900 | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900   | 1900 | 1900 | 1900  |      |      |      |
| Satd. Flow (prot)       | 0    | 0    | 0    | 0    | 3404  | 0    | 0     | 1797  | 1538   | 0    | 0    | 1596  |      |      |      |
| Fit Permitted           |      |      |      |      |       |      |       | 0.993 |        |      |      |       |      |      |      |
| Satd. Flow (perm)       | 0    | 0    | 0    | 0    | 3404  | 0    | 0     | 1794  | 1538   | 0    | 0    | 1596  |      |      |      |
| Right Turn on Red       |      |      | Yes  |      |       | Yes  | Yes   |       | No     |      |      | Yes   |      |      |      |
| Satd. Flow (RTOR)       |      |      |      |      | 4     |      |       | 164   |        |      |      | 685   |      |      |      |
| Link Speed (mph)        |      | 30   |      |      | 30    |      |       | 30    |        |      | 30   |       |      |      |      |
| Link Distance (ft)      |      | 100  |      |      | 336   |      |       | 433   |        |      | 533  |       |      |      |      |
| Travel Time (s)         |      | 2.3  |      |      | 7.6   |      |       | 9.8   |        |      | 12.1 |       |      |      |      |
| Confl. Peds. (#/hr)     |      |      |      |      |       | 4    | 3     |       |        |      |      |       |      |      |      |
| Peak Hour Factor        | 0.92 | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92  | 0.92  | 0.92   | 0.92 | 0.92 | 0.92  |      |      |      |
| Heavy Vehicles (%)      | 0%   | 0%   | 0%   | 0%   | 5%    | 4%   | 5%    | 5%    | 5%     | 0%   | 0%   | 3%    |      |      |      |
| Shared Lane Traffic (%) |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Lane Group Flow (vph)   | 0    | 0    | 0    | 0    | 701   | 0    | 0     | 179   | 853    | 0    | 0    | 353   |      |      |      |
| Turn Type               |      |      |      |      | NA    |      | Split | NA    | custom |      |      | Prot  |      |      |      |
| Protected Phases        |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |      | 4     | 7    | 8    | 9    |
| Permitted Phases        |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Detector Phase          |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |      | 4     |      |      |      |
| Switch Phase            |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Minimum Initial (s)     |      |      |      |      | 6.0   |      | 6.0   | 6.0   |        |      |      | 6.0   | 2.0  | 2.0  | 5.0  |
| Minimum Split (s)       |      |      |      |      | 17.5  |      | 19.5  | 19.5  |        |      |      | 10.0  | 4.0  | 4.0  | 27.0 |
| Total Split (s)         |      |      |      |      | 29.0  |      | 26.0  | 26.0  |        |      |      | 29.0  | 4.0  | 4.0  | 28.0 |
| Total Split (%)         |      |      |      |      | 24.2% |      | 21.7% | 21.7% |        |      |      | 24.2% | 3%   | 3%   | 23%  |
| Yellow Time (s)         |      |      |      |      | 3.5   |      | 3.5   | 3.5   |        |      |      | 3.0   | 2.0  | 2.0  | 2.0  |
| All-Red Time (s)        |      |      |      |      | 4.5   |      | 4.5   | 4.5   |        |      |      | 1.0   | 0.0  | 0.0  | 3.0  |
| Lost Time Adjust (s)    |      |      |      |      | 0.0   |      |       | 0.0   |        |      |      | 0.0   |      |      |      |
| Total Lost Time (s)     |      |      |      |      | 8.0   |      |       | 8.0   |        |      |      | 4.0   |      |      |      |
| Lead/Lag                |      |      |      |      | Lag   |      | Lag   | Lag   |        |      |      |       | Lead | Lead |      |
| Lead-Lag Optimize?      |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Recall Mode             |      |      |      |      | C-Min |      | None  | None  |        |      |      | None  | Min  | Min  | None |
| Act Effect Green (s)    |      |      |      |      | 35.7  |      |       | 18.0  | 82.7   |      |      | 25.0  |      |      |      |
| Actuated g/C Ratio      |      |      |      |      | 0.30  |      |       | 0.15  | 0.69   |      |      | 0.21  |      |      |      |
| v/c Ratio               |      |      |      |      | 0.69  |      |       | 0.44  | 0.81   |      |      | 0.40  |      |      |      |
| Control Delay           |      |      |      |      | 35.5  |      |       | 12.4  | 20.9   |      |      | 1.4   |      |      |      |
| Queue Delay             |      |      |      |      | 3.2   |      |       | 0.0   | 51.7   |      |      | 0.0   |      |      |      |
| Total Delay             |      |      |      |      | 38.8  |      |       | 12.4  | 72.6   |      |      | 1.4   |      |      |      |
| LOS                     |      |      |      |      | D     |      |       | B     | E      |      |      | A     |      |      |      |
| Approach Delay          |      |      |      |      | 38.8  |      |       | 62.2  |        |      | 1.4  |       |      |      |      |
| Approach LOS            |      |      |      |      | D     |      |       | E     |        |      | A    |       |      |      |      |
| Queue Length 50th (ft)  |      |      |      |      | 162   |      |       | 10    | 127    |      |      | 0     |      |      |      |
| Queue Length 95th (ft)  |      |      |      |      | m#450 |      |       | 75    | #916   |      |      | 0     |      |      |      |
| Internal Link Dist (ft) |      | 20   |      |      | 256   |      |       | 353   |        |      | 453  |       |      |      |      |
| Turn Bay Length (ft)    |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Base Capacity (vph)     |      |      |      |      | 1015  |      |       | 408   | 1059   |      |      | 874   |      |      |      |
| Starvation Cap Reductn  |      |      |      |      | 215   |      |       | 0     | 0      |      |      | 0     |      |      |      |
| Spillback Cap Reductn   |      |      |      |      | 0     |      |       | 0     | 491    |      |      | 0     |      |      |      |
| Storage Cap Reductn     |      |      |      |      | 0     |      |       | 0     | 0      |      |      | 0     |      |      |      |
| Reduced v/c Ratio       |      |      |      |      | 0.88  |      |       | 0.44  | 1.50   |      |      | 0.40  |      |      |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 9 (8%), Referenced to phase 2:WBT, Start of Yellow  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 44.0 Intersection LOS: D  
 Intersection Capacity Utilization 63.5% ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Washington Street & Elm Street



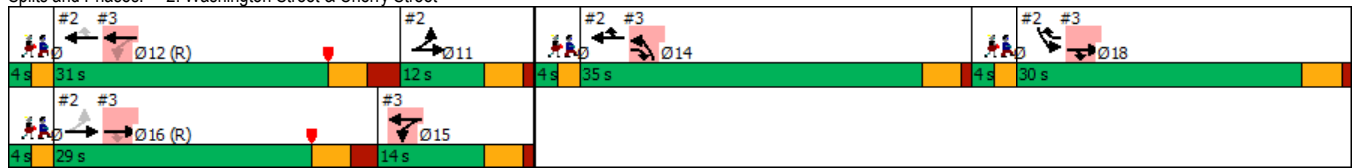


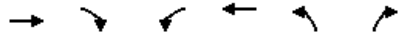
| Lane Group              | EBL    | EBT   | WBT   | WBR    | SBL   | SBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø12   | Ø14  | Ø15  | Ø16   |
|-------------------------|--------|-------|-------|--------|-------|------|------|------|------|------|-------|------|------|-------|
| Lane Configurations     | ↖      | ↗     | ↖     | ↖      | ↖     | ↖    |      |      |      |      |       |      |      |       |
| Traffic Volume (vph)    | 105    | 680   | 575   | 175    | 575   | 70   |      |      |      |      |       |      |      |       |
| Future Volume (vph)     | 105    | 680   | 575   | 175    | 575   | 70   |      |      |      |      |       |      |      |       |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900   | 1900  | 1900 |      |      |      |      |       |      |      |       |
| Storage Length (ft)     | 200    |       |       | 0      | 100   | 0    |      |      |      |      |       |      |      |       |
| Storage Lanes           | 1      |       |       | 1      | 1     | 0    |      |      |      |      |       |      |      |       |
| Taper Length (ft)       | 25     |       |       |        | 25    |      |      |      |      |      |       |      |      |       |
| Satd. Flow (prot)       | 1787   | 1810  | 1810  | 1583   | 3343  | 0    |      |      |      |      |       |      |      |       |
| Flt Permitted           | 0.173  |       |       |        | 0.957 |      |      |      |      |      |       |      |      |       |
| Satd. Flow (perm)       | 325    | 1810  | 1810  | 1500   | 3343  | 0    |      |      |      |      |       |      |      |       |
| Right Turn on Red       |        |       |       | Yes    |       | Yes  |      |      |      |      |       |      |      |       |
| Satd. Flow (RTOR)       |        |       |       | 190    | 10    |      |      |      |      |      |       |      |      |       |
| Link Speed (mph)        |        | 30    | 30    |        | 30    |      |      |      |      |      |       |      |      |       |
| Link Distance (ft)      |        | 336   | 185   |        | 438   |      |      |      |      |      |       |      |      |       |
| Travel Time (s)         |        | 7.6   | 4.2   |        | 10.0  |      |      |      |      |      |       |      |      |       |
| Confl. Peds. (#/hr)     |        |       |       | 8      |       | 9    |      |      |      |      |       |      |      |       |
| Peak Hour Factor        | 0.92   | 0.92  | 0.92  | 0.92   | 0.92  | 0.92 |      |      |      |      |       |      |      |       |
| Heavy Vehicles (%)      | 1%     | 5%    | 5%    | 2%     | 3%    | 5%   |      |      |      |      |       |      |      |       |
| Shared Lane Traffic (%) |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Lane Group Flow (vph)   | 114    | 739   | 625   | 190    | 701   | 0    |      |      |      |      |       |      |      |       |
| Turn Type               | custom | NA    | NA    | custom | Prot  |      |      |      |      |      |       |      |      |       |
| Protected Phases        | 11     | 11 16 | 12 14 | 14 18  | 18    |      | 2    | 4    | 6    | 8    | 12    | 14   | 15   | 16    |
| Permitted Phases        | 16     |       |       | 12     |       |      |      |      |      |      |       |      |      |       |
| Detector Phase          | 11     | 11 16 | 12 14 | 14 18  | 18    |      |      |      |      |      |       |      |      |       |
| Switch Phase            |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Minimum Initial (s)     | 8.0    |       |       |        | 8.0   |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0   | 8.0  | 8.0  | 8.0   |
| Minimum Split (s)       | 12.5   |       |       |        | 20.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 15.0  | 19.0 | 12.5 | 16.5  |
| Total Split (s)         | 12.0   |       |       |        | 30.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 31.0  | 35.0 | 14.0 | 29.0  |
| Total Split (%)         | 10.0%  |       |       |        | 25.0% |      | 3%   | 3%   | 3%   | 3%   | 26%   | 29%  | 12%  | 24%   |
| Yellow Time (s)         | 3.5    |       |       |        | 3.5   |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5   | 3.5  | 3.5  | 3.5   |
| All-Red Time (s)        | 1.0    |       |       |        | 1.0   |      | 0.0  | 0.0  | 0.0  | 0.0  | 3.0   | 1.0  | 1.0  | 2.5   |
| Lost Time Adjust (s)    | 0.0    |       |       |        | 0.0   |      |      |      |      |      |       |      |      |       |
| Total Lost Time (s)     | 4.5    |       |       |        | 4.5   |      |      |      |      |      |       |      |      |       |
| Lead/Lag                |        |       |       |        | Lag   |      | Lead | Lead | Lead | Lead | Lag   | Lag  |      | Lag   |
| Lead-Lag Optimize?      |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Recall Mode             | None   |       |       |        | None  |      | Min  | Min  | Min  | Min  | C-Min | None | None | C-Min |
| Act Effct Green (s)     | 32.0   | 32.0  | 47.7  | 80.6   | 28.8  |      |      |      |      |      |       |      |      |       |
| Actuated g/C Ratio      | 0.27   | 0.27  | 0.40  | 0.67   | 0.24  |      |      |      |      |      |       |      |      |       |
| v/c Ratio               | 0.64   | 1.53  | 0.87  | 0.17   | 0.86  |      |      |      |      |      |       |      |      |       |
| Control Delay           | 53.5   | 275.7 | 12.8  | 1.5    | 56.1  |      |      |      |      |      |       |      |      |       |
| Queue Delay             | 0.0    | 0.3   | 22.6  | 0.4    | 14.0  |      |      |      |      |      |       |      |      |       |
| Total Delay             | 53.5   | 276.0 | 35.4  | 1.9    | 70.1  |      |      |      |      |      |       |      |      |       |
| LOS                     | D      | F     | D     | A      | E     |      |      |      |      |      |       |      |      |       |
| Approach Delay          |        | 246.3 | 27.6  |        | 70.1  |      |      |      |      |      |       |      |      |       |
| Approach LOS            |        | F     | C     |        | E     |      |      |      |      |      |       |      |      |       |
| Queue Length 50th (ft)  | 54     | ~716  | 218   | 6      | 276   |      |      |      |      |      |       |      |      |       |
| Queue Length 95th (ft)  | m84    | #1011 | m127  | m4     | #403  |      |      |      |      |      |       |      |      |       |
| Internal Link Dist (ft) |        | 256   | 105   |        | 358   |      |      |      |      |      |       |      |      |       |
| Turn Bay Length (ft)    | 200    |       |       |        | 100   |      |      |      |      |      |       |      |      |       |
| Base Capacity (vph)     | 178    | 482   | 799   | 1162   | 811   |      |      |      |      |      |       |      |      |       |
| Starvation Cap Reductn  | 0      | 18    | 186   | 611    | 0     |      |      |      |      |      |       |      |      |       |
| Spillback Cap Reductn   | 0      | 11    | 36    | 0      | 108   |      |      |      |      |      |       |      |      |       |
| Storage Cap Reductn     | 0      | 0     | 0     | 0      | 0     |      |      |      |      |      |       |      |      |       |
| Reduced v/c Ratio       | 0.64   | 1.59  | 1.02  | 0.34   | 1.00  |      |      |      |      |      |       |      |      |       |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.53  
 Intersection Signal Delay: 118.9 Intersection LOS: F  
 Intersection Capacity Utilization 68.5% ICU Level of Service C  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Washington Street & Cherry Street





| Lane Group              | EBT   | EBR    | WBL    | WBT   | NBL   | NBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø11  | Ø12   | Ø16   | Ø18  |
|-------------------------|-------|--------|--------|-------|-------|------|------|------|------|------|------|-------|-------|------|
| Lane Configurations     | ↑↑    | ↑      | ↓      | ↑     | ↓     |      |      |      |      |      |      |       |       |      |
| Traffic Volume (vph)    | 945   | 310    | 125    | 600   | 150   | 35   |      |      |      |      |      |       |       |      |
| Future Volume (vph)     | 945   | 310    | 125    | 600   | 150   | 35   |      |      |      |      |      |       |       |      |
| Ideal Flow (vphpl)      | 1900  | 1900   | 1900   | 1900  | 1900  | 1900 |      |      |      |      |      |       |       |      |
| Storage Length (ft)     |       | 85     | 0      |       | 0     | 0    |      |      |      |      |      |       |       |      |
| Storage Lanes           |       | 1      | 1      |       | 1     | 0    |      |      |      |      |      |       |       |      |
| Taper Length (ft)       |       |        | 25     |       | 25    |      |      |      |      |      |      |       |       |      |
| Satd. Flow (prot)       | 3471  | 1524   | 1770   | 1810  | 1741  | 0    |      |      |      |      |      |       |       |      |
| Flt Permitted           |       |        | 0.163  |       | 0.961 |      |      |      |      |      |      |       |       |      |
| Satd. Flow (perm)       | 3471  | 1446   | 304    | 1810  | 1741  | 0    |      |      |      |      |      |       |       |      |
| Right Turn on Red       |       | Yes    |        |       |       | Yes  |      |      |      |      |      |       |       |      |
| Satd. Flow (RTOR)       |       | 250    |        |       | 9     |      |      |      |      |      |      |       |       |      |
| Link Speed (mph)        | 30    |        |        | 30    | 30    |      |      |      |      |      |      |       |       |      |
| Link Distance (ft)      | 185   |        |        | 301   | 145   |      |      |      |      |      |      |       |       |      |
| Travel Time (s)         | 4.2   |        |        | 6.8   | 3.3   |      |      |      |      |      |      |       |       |      |
| Confl. Peds. (#/hr)     |       | 7      |        |       |       | 8    |      |      |      |      |      |       |       |      |
| Confl. Bikes (#/hr)     |       | 5      |        |       |       |      |      |      |      |      |      |       |       |      |
| Peak Hour Factor        | 0.92  | 0.92   | 0.92   | 0.92  | 0.92  | 0.92 |      |      |      |      |      |       |       |      |
| Heavy Vehicles (%)      | 4%    | 6%     | 2%     | 5%    | 1%    | 4%   |      |      |      |      |      |       |       |      |
| Shared Lane Traffic (%) |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Lane Group Flow (vph)   | 1027  | 337    | 136    | 652   | 201   | 0    |      |      |      |      |      |       |       |      |
| Turn Type               | NA    | custom | custom | NA    | Prot  |      |      |      |      |      |      |       |       |      |
| Protected Phases        | 16 18 | 14 18  | 15     | 12 15 | 14    |      | 2    | 4    | 6    | 8    | 11   | 12    | 16    | 18   |
| Permitted Phases        |       | 16     | 12     |       |       |      |      |      |      |      |      |       |       |      |
| Detector Phase          | 16 18 | 14 18  | 15     | 12 15 | 14    |      |      |      |      |      |      |       |       |      |
| Switch Phase            |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Minimum Initial (s)     |       |        | 8.0    |       | 8.0   |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0  | 8.0   | 8.0   | 8.0  |
| Minimum Split (s)       |       |        | 12.5   |       | 19.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 12.5 | 15.0  | 16.5  | 20.0 |
| Total Split (s)         |       |        | 14.0   |       | 35.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 12.0 | 31.0  | 29.0  | 30.0 |
| Total Split (%)         |       |        | 11.7%  |       | 29.2% |      | 3%   | 3%   | 3%   | 3%   | 10%  | 26%   | 24%   | 25%  |
| Yellow Time (s)         |       |        | 3.5    |       | 3.5   |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5  | 3.5   | 3.5   | 3.5  |
| All-Red Time (s)        |       |        | 1.0    |       | 1.0   |      | 0.0  | 0.0  | 0.0  | 0.0  | 1.0  | 3.0   | 2.5   | 1.0  |
| Lost Time Adjust (s)    |       |        | 0.0    |       | 0.0   |      |      |      |      |      |      |       |       |      |
| Total Lost Time (s)     |       |        | 4.5    |       | 4.5   |      |      |      |      |      |      |       |       |      |
| Lead/Lag                |       |        |        |       | Lag   |      | Lead | Lead | Lead | Lead |      | Lag   | Lag   | Lag  |
| Lead-Lag Optimize?      |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Recall Mode             |       |        | None   |       | None  |      | Min  | Min  | Min  | Min  | None | C-Min | C-Min | None |
| Act Effect Green (s)    | 50.3  | 78.6   | 36.0   | 32.0  | 25.2  |      |      |      |      |      |      |       |       |      |
| Actuated g/C Ratio      | 0.42  | 0.66   | 0.30   | 0.27  | 0.21  |      |      |      |      |      |      |       |       |      |
| v/c Ratio               | 0.71  | 0.32   | 0.66   | 1.35  | 0.54  |      |      |      |      |      |      |       |       |      |
| Control Delay           | 13.8  | 1.4    | 60.1   | 205.5 | 44.7  |      |      |      |      |      |      |       |       |      |
| Queue Delay             | 13.2  | 0.9    | 0.0    | 1.0   | 0.3   |      |      |      |      |      |      |       |       |      |
| Total Delay             | 27.0  | 2.3    | 60.1   | 206.5 | 45.0  |      |      |      |      |      |      |       |       |      |
| LOS                     | C     | A      | E      | F     | D     |      |      |      |      |      |      |       |       |      |
| Approach Delay          | 20.9  |        |        | 181.2 | 45.0  |      |      |      |      |      |      |       |       |      |
| Approach LOS            | C     |        |        | F     | D     |      |      |      |      |      |      |       |       |      |
| Queue Length 50th (ft)  | 102   | 7      | 92     | ~581  | 129   |      |      |      |      |      |      |       |       |      |
| Queue Length 95th (ft)  | m90   | m5     | m#115  | #781  | 200   |      |      |      |      |      |      |       |       |      |
| Internal Link Dist (ft) | 105   |        |        | 221   | 65    |      |      |      |      |      |      |       |       |      |
| Turn Bay Length (ft)    |       | 85     |        |       |       |      |      |      |      |      |      |       |       |      |
| Base Capacity (vph)     | 1456  | 1118   | 207    | 482   | 449   |      |      |      |      |      |      |       |       |      |
| Starvation Cap Reductn  | 423   | 518    | 0      | 0     | 0     |      |      |      |      |      |      |       |       |      |
| Spillback Cap Reductn   | 289   | 0      | 0      | 51    | 39    |      |      |      |      |      |      |       |       |      |
| Storage Cap Reductn     | 0     | 0      | 0      | 0     | 0     |      |      |      |      |      |      |       |       |      |
| Reduced v/c Ratio       | 0.99  | 0.56   | 0.66   | 1.51  | 0.49  |      |      |      |      |      |      |       |       |      |

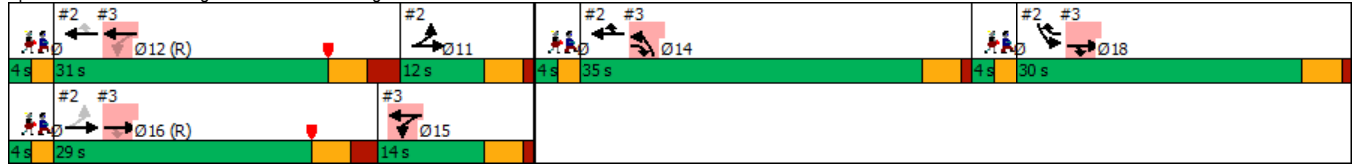
**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.53  
 Intersection Signal Delay: 76.6 Intersection LOS: E  
 Intersection Capacity Utilization 56.5% ICU Level of Service B  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Highland Street & Washington Street



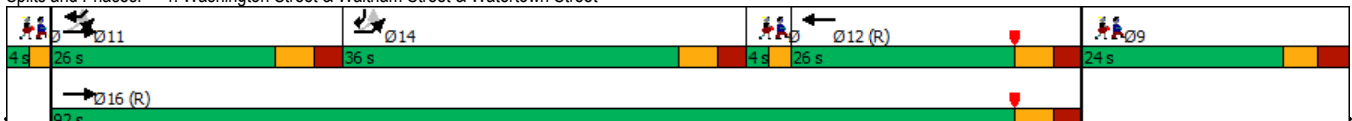


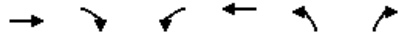
| Lane Group              | EBL2   | EBL   | EBT   | WBT   | WBR  | WBR2 | SBL  | SBR   | SWL  | SWR   | SWR2 | Ø1  | Ø2  | Ø9   | Ø16   |
|-------------------------|--------|-------|-------|-------|------|------|------|-------|------|-------|------|-----|-----|------|-------|
| Lane Configurations     |        | ↖     | ↗     | ↕     | ↕    |      |      | ↖     |      | ↖     | ↖    |     |     |      |       |
| Traffic Volume (vph)    | 1      | 355   | 625   | 275   | 160  | 2    | 0    | 205   | 0    | 245   | 40   |     |     |      |       |
| Future Volume (vph)     | 1      | 355   | 625   | 275   | 160  | 2    | 0    | 205   | 0    | 245   | 40   |     |     |      |       |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900  | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900 |     |     |      |       |
| Satd. Flow (prot)       | 0      | 1736  | 1810  | 3143  | 0    | 0    | 0    | 1580  | 0    | 1576  | 0    |     |     |      |       |
| Fit Permitted           |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Satd. Flow (perm)       | 0      | 1827  | 1810  | 3143  | 0    | 0    | 0    | 1580  | 0    | 1576  | 0    |     |     |      |       |
| Right Turn on Red       |        |       |       |       |      |      | Yes  | Yes   |      |       | No   |     |     |      |       |
| Satd. Flow (RTOR)       |        |       |       |       |      |      |      | 454   |      |       |      |     |     |      |       |
| Link Speed (mph)        |        |       | 30    | 30    |      |      | 30   |       | 30   |       |      |     |     |      |       |
| Link Distance (ft)      |        |       | 301   | 274   |      |      | 478  |       | 461  |       |      |     |     |      |       |
| Travel Time (s)         |        |       | 6.8   | 6.2   |      |      | 10.9 |       | 10.5 |       |      |     |     |      |       |
| Confl. Peds. (#/hr)     |        |       |       |       |      | 13   |      |       |      |       | 13   |     |     |      |       |
| Peak Hour Factor        | 0.92   | 0.92  | 0.92  | 0.92  | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 |     |     |      |       |
| Heavy Vehicles (%)      | 0%     | 4%    | 5%    | 4%    | 1%   | 0%   | 0%   | 4%    | 0%   | 5%    | 0%   |     |     |      |       |
| Shared Lane Traffic (%) |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Lane Group Flow (vph)   | 0      | 387   | 679   | 475   | 0    | 0    | 0    | 223   | 0    | 309   | 0    |     |     |      |       |
| Turn Type               | custom | Prot  | NA    | NA    |      |      |      | Prot  |      | Over  |      |     |     |      |       |
| Protected Phases        |        | 11 14 | 11 16 | 12    |      |      |      | 14    |      | 11    |      | 1   | 2   | 9    | 16    |
| Permitted Phases        | 11 14  |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Detector Phase          | 11 14  | 11 14 | 11 16 | 12    |      |      |      | 14    |      | 11    |      |     |     |      |       |
| Switch Phase            |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Minimum Initial (s)     |        |       |       | 6.0   |      |      |      | 6.0   |      | 6.0   |      | 2.0 | 2.0 | 5.0  | 6.0   |
| Minimum Split (s)       |        |       |       | 12.5  |      |      |      | 12.0  |      | 15.5  |      | 4.0 | 4.0 | 23.0 | 12.0  |
| Total Split (s)         |        |       |       | 26.0  |      |      |      | 36.0  |      | 26.0  |      | 4.0 | 4.0 | 24.0 | 92.0  |
| Total Split (%)         |        |       |       | 21.7% |      |      |      | 30.0% |      | 21.7% |      | 3%  | 3%  | 20%  | 77%   |
| Yellow Time (s)         |        |       |       | 3.5   |      |      |      | 3.5   |      | 3.5   |      | 2.0 | 2.0 | 3.0  | 3.5   |
| All-Red Time (s)        |        |       |       | 2.5   |      |      |      | 2.5   |      | 2.5   |      | 0.0 | 0.0 | 3.0  | 2.5   |
| Lost Time Adjust (s)    |        |       |       | 0.0   |      |      |      | 0.0   |      | 0.0   |      |     |     |      |       |
| Total Lost Time (s)     |        |       |       | 6.0   |      |      |      | 6.0   |      | 6.0   |      |     |     |      |       |
| Lead/Lag                |        |       |       | Lag   |      |      |      | Lag   |      | Lead  |      |     |     | Lead |       |
| Lead-Lag Optimize?      |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Recall Mode             |        |       |       | C-Min |      |      |      | None  |      | None  |      | Min | Min | None | C-Min |
| Act Effect Green (s)    |        | 50.6  | 98.3  | 34.2  |      |      |      | 11.6  |      | 33.0  |      |     |     |      |       |
| Actuated g/C Ratio      |        | 0.42  | 0.82  | 0.28  |      |      |      | 0.10  |      | 0.28  |      |     |     |      |       |
| v/c Ratio               |        | 0.50  | 0.46  | 0.53  |      |      |      | 0.40  |      | 0.71  |      |     |     |      |       |
| Control Delay           |        | 50.6  | 6.2   | 39.9  |      |      |      | 2.1   |      | 52.1  |      |     |     |      |       |
| Queue Delay             |        | 1.8   | 2.8   | 4.1   |      |      |      | 0.9   |      | 6.0   |      |     |     |      |       |
| Total Delay             |        | 52.4  | 8.9   | 43.9  |      |      |      | 3.0   |      | 58.1  |      |     |     |      |       |
| LOS                     |        | D     | A     | D     |      |      |      | A     |      | E     |      |     |     |      |       |
| Approach Delay          |        |       | 24.7  | 43.9  |      |      | 3.0  |       | 58.1 |       |      |     |     |      |       |
| Approach LOS            |        |       | C     | D     |      |      | A    |       | E    |       |      |     |     |      |       |
| Queue Length 50th (ft)  |        | 311   | 91    | 165   |      |      |      | 0     |      | 196   |      |     |     |      |       |
| Queue Length 95th (ft)  |        | 340   | 135   | 248   |      |      |      | 0     |      | #465  |      |     |     |      |       |
| Internal Link Dist (ft) |        |       | 221   | 194   |      |      | 398  |       | 381  |       |      |     |     |      |       |
| Turn Bay Length (ft)    |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Base Capacity (vph)     |        | 1050  | 1482  | 894   |      |      |      | 735   |      | 433   |      |     |     |      |       |
| Starvation Cap Reductn  |        | 488   | 663   | 329   |      |      |      | 0     |      | 0     |      |     |     |      |       |
| Spillback Cap Reductn   |        | 0     | 113   | 318   |      |      |      | 291   |      | 79    |      |     |     |      |       |
| Storage Cap Reductn     |        | 0     | 0     | 0     |      |      |      | 0     |      | 0     |      |     |     |      |       |
| Reduced v/c Ratio       |        | 0.69  | 0.83  | 0.84  |      |      |      | 0.50  |      | 0.87  |      |     |     |      |       |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 117 (98%), Referenced to phase 12:WBT and 16:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 31.7  
 Intersection Capacity Utilization 65.6%  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Washington Street & Waltham Street & Watertown Street





| Lane Group              | EBT   | EBR   | WBL   | WBT   | NBL   | NBR   | Ø9   |
|-------------------------|-------|-------|-------|-------|-------|-------|------|
| Lane Configurations     | ↑     | ↗     | ↖     | ↑     | ↖     | ↗     |      |
| Traffic Volume (vph)    | 570   | 55    | 220   | 350   | 85    | 165   |      |
| Future Volume (vph)     | 570   | 55    | 220   | 350   | 85    | 165   |      |
| Ideal Flow (vphpl)      | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Storage Length (ft)     |       | 35    | 0     |       | 0     | 150   |      |
| Storage Lanes           |       | 1     | 1     |       | 1     | 1     |      |
| Taper Length (ft)       |       |       | 25    |       | 25    |       |      |
| Satd. Flow (prot)       | 1827  | 1482  | 1770  | 1827  | 1770  | 1583  |      |
| Flt Permitted           |       |       | 0.242 |       | 0.950 |       |      |
| Satd. Flow (perm)       | 1827  | 1449  | 451   | 1827  | 1770  | 1583  |      |
| Right Turn on Red       |       | Yes   |       |       |       | Yes   |      |
| Satd. Flow (RTOR)       |       | 13    |       |       |       | 179   |      |
| Link Speed (mph)        | 30    |       |       | 30    | 30    |       |      |
| Link Distance (ft)      | 274   |       |       | 584   | 336   |       |      |
| Travel Time (s)         | 6.2   |       |       | 13.3  | 7.6   |       |      |
| Confl. Bikes (#/hr)     |       | 3     |       |       |       |       |      |
| Peak Hour Factor        | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |      |
| Heavy Vehicles (%)      | 4%    | 9%    | 2%    | 4%    | 2%    | 2%    |      |
| Shared Lane Traffic (%) |       |       |       |       |       |       |      |
| Lane Group Flow (vph)   | 620   | 60    | 239   | 380   | 92    | 179   |      |
| Turn Type               | NA    | pm+ov | pm+pt | NA    | Prot  | pt+ov |      |
| Protected Phases        | 6     | 3     | 5     | 2     | 3     | 3.5   | 9    |
| Permitted Phases        |       | 6     | 2     |       |       |       |      |
| Detector Phase          | 6     | 3     | 5     | 2     | 3     | 3.5   |      |
| Switch Phase            |       |       |       |       |       |       |      |
| Minimum Initial (s)     | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   |       | 5.0  |
| Minimum Split (s)       | 12.5  | 12.5  | 12.5  | 12.5  | 12.5  |       | 24.0 |
| Total Split (s)         | 50.0  | 21.0  | 24.0  | 74.0  | 21.0  |       | 25.0 |
| Total Split (%)         | 41.7% | 17.5% | 20.0% | 61.7% | 17.5% |       | 21%  |
| Yellow Time (s)         | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   |       | 2.0  |
| All-Red Time (s)        | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   |       | 3.0  |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |       |      |
| Total Lost Time (s)     | 6.5   | 6.5   | 6.5   | 6.5   | 6.5   |       |      |
| Lead/Lag                | Lag   |       | Lead  |       |       |       |      |
| Lead-Lag Optimize?      |       |       |       |       |       |       |      |
| Recall Mode             | C-Min | None  | None  | C-Min | None  |       | None |
| Act Effct Green (s)     | 65.5  | 76.8  | 86.2  | 86.2  | 11.2  | 29.3  |      |
| Actuated g/C Ratio      | 0.55  | 0.64  | 0.72  | 0.72  | 0.09  | 0.24  |      |
| v/c Ratio               | 0.62  | 0.06  | 0.50  | 0.29  | 0.56  | 0.34  |      |
| Control Delay           | 18.4  | 7.0   | 11.8  | 9.3   | 64.3  | 4.5   |      |
| Queue Delay             | 1.3   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |      |
| Total Delay             | 19.7  | 7.0   | 11.8  | 9.3   | 64.3  | 4.5   |      |
| LOS                     | B     | A     | B     | A     | E     | A     |      |
| Approach Delay          | 18.6  |       |       | 10.3  | 24.8  |       |      |
| Approach LOS            | B     |       |       | B     | C     |       |      |
| Queue Length 50th (ft)  | 99    | 1     | 36    | 62    | 69    | 0     |      |
| Queue Length 95th (ft)  | #715  | 24    | 133   | 218   | 122   | 34    |      |
| Internal Link Dist (ft) | 194   |       |       | 504   | 256   |       |      |
| Turn Bay Length (ft)    |       | 35    |       |       |       | 150   |      |
| Base Capacity (vph)     | 997   | 974   | 523   | 1311  | 213   | 558   |      |
| Starvation Cap Reductn  | 192   | 0     | 0     | 0     | 0     | 0     |      |
| Spillback Cap Reductn   | 0     | 0     | 0     | 130   | 0     | 0     |      |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     | 0     |      |
| Reduced v/c Ratio       | 0.77  | 0.06  | 0.46  | 0.32  | 0.43  | 0.32  |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 10 (8%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 16.4 Intersection LOS: B  
 Intersection Capacity Utilization 63.4% ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Chestnut Street & Washington Street



| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 0      |        |        |      |      |      |
| Movement                 | WBL    | WBR    | NBT    | NBR  | SBL  | SBT  |
| Lane Configurations      | W      |        | T      |      |      | T    |
| Traffic Vol, veh/h       | 0      | 0      | 185    | 0    | 0    | 435  |
| Future Vol, veh/h        | 0      | 0      | 185    | 0    | 0    | 435  |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 11   | 11   | 0    |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | 0      | -    | -    | 0    |
| Grade, %                 | 0      | -      | 0      | -    | -    | 0    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92   | 92   |
| Heavy Vehicles, %        | 0      | 0      | 1      | 0    | 0    | 2    |
| Mvmt Flow                | 0      | 0      | 201    | 0    | 0    | 473  |
| Major/Minor              | Minor1 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 685    | 212    | 0      | 0    | 212  | 0    |
| Stage 1                  | 212    | -      | -      | -    | -    | -    |
| Stage 2                  | 473    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.4    | 6.2    | -      | -    | 4.1  | -    |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 3.3    | -      | -    | 2.2  | -    |
| Pot Cap-1 Maneuver       | 417    | 833    | -      | -    | 1370 | -    |
| Stage 1                  | 828    | -      | -      | -    | -    | -    |
| Stage 2                  | 631    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        | -      | -    |      | -    |
| Mov Cap-1 Maneuver       | 413    | 824    | -      | -    | 1356 | -    |
| Mov Cap-2 Maneuver       | 413    | -      | -      | -    | -    | -    |
| Stage 1                  | 820    | -      | -      | -    | -    | -    |
| Stage 2                  | 631    | -      | -      | -    | -    | -    |
| Approach                 | WB     | NB     |        | SB   |      |      |
| HCM Control Delay, s     | 0      | 0      |        | 0    |      |      |
| HCM LOS                  | A      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBR    | WBLn1  | SBL  | SBT  |      |
| Capacity (veh/h)         | -      | -      | -      | 1356 | -    |      |
| HCM Lane V/C Ratio       | -      | -      | -      | -    | -    |      |
| HCM Control Delay (s)    | -      | -      | 0      | 0    | -    |      |
| HCM Lane LOS             | -      | -      | A      | A    | -    |      |
| HCM 95th %tile Q(veh)    | -      | -      | -      | 0    | -    |      |

| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 0.1    |        |        |      |      |      |
| Movement                 | EBL    | EBR    | NBL    | NBT  | SBT  | SBR  |
| Lane Configurations      | W      |        |        | W    | W    |      |
| Traffic Vol, veh/h       | 0      | 0      | 5      | 185  | 420  | 15   |
| Future Vol, veh/h        | 0      | 0      | 5      | 185  | 420  | 15   |
| Conflicting Peds, #/hr   | 0      | 0      | 41     | 0    | 0    | 41   |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | -      | 0    | 0    | -    |
| Grade, %                 | 0      | -      | -      | 0    | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92   | 92   |
| Heavy Vehicles, %        | 0      | 0      | 0      | 1    | 2    | 0    |
| Mvmt Flow                | 0      | 0      | 5      | 201  | 457  | 16   |
| Major/Minor              | Minor2 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 717    | 506    | 514    | 0    | -    | 0    |
| Stage 1                  | 506    | -      | -      | -    | -    | -    |
| Stage 2                  | 211    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.4    | 6.2    | 4.1    | -    | -    | -    |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 3.3    | 2.2    | -    | -    | -    |
| Pot Cap-1 Maneuver       | 399    | 570    | 1062   | -    | -    | -    |
| Stage 1                  | 610    | -      | -      | -    | -    | -    |
| Stage 2                  | 829    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        |        | -    | -    | -    |
| Mov Cap-1 Maneuver       | 366    | 548    | 1021   | -    | -    | -    |
| Mov Cap-2 Maneuver       | 366    | -      | -      | -    | -    | -    |
| Stage 1                  | 583    | -      | -      | -    | -    | -    |
| Stage 2                  | 797    | -      | -      | -    | -    | -    |
| Approach                 | EB     | NB     |        | SB   |      |      |
| HCM Control Delay, s     | 0      | 0.2    |        | 0    |      |      |
| HCM LOS                  | A      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1  | SBT  | SBR  |      |
| Capacity (veh/h)         | 1021   | -      | -      | -    | -    |      |
| HCM Lane V/C Ratio       | 0.005  | -      | -      | -    | -    |      |
| HCM Control Delay (s)    | 8.5    | 0      | 0      | -    | -    |      |
| HCM Lane LOS             | A      | A      | A      | -    | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | -      | -    | -    |      |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.7  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 15   | 5    | 5    | 0    | 0    | 45   | 0    | 130  | 95   | 50   | 370  | 0    |
| Future Vol, veh/h        | 15   | 5    | 5    | 0    | 0    | 45   | 0    | 130  | 95   | 50   | 370  | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 13   | 0    | 0    | 13   | 13   | 0    | 11   | 11   | 0    | 13   |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 0    | 2    | 0    |
| Mvmt Flow                | 16   | 5    | 5    | 0    | 0    | 49   | 0    | 141  | 103  | 54   | 402  | 0    |

| Major/Minor          | Minor2 |     | Minor1 |   | Major1 |     |      | Major2 |   |      |   |   |
|----------------------|--------|-----|--------|---|--------|-----|------|--------|---|------|---|---|
| Conflicting Flow All | 753    | 778 | 428    | - | 727    | 217 | 415  | 0      | 0 | 255  | 0 | 0 |
| Stage 1              | 523    | 523 | -      | - | 204    | -   | -    | -      | - | -    | - | - |
| Stage 2              | 230    | 255 | -      | - | 523    | -   | -    | -      | - | -    | - | - |
| Critical Hdwy        | 7.1    | 6.5 | 6.2    | - | 6.5    | 6.2 | 4.1  | -      | - | 4.1  | - | - |
| Critical Hdwy Stg 1  | 6.1    | 5.5 | -      | - | 5.5    | -   | -    | -      | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.1    | 5.5 | -      | - | 5.5    | -   | -    | -      | - | -    | - | - |
| Follow-up Hdwy       | 3.5    | 4   | 3.3    | - | 4      | 3.3 | 2.2  | -      | - | 2.2  | - | - |
| Pot Cap-1 Maneuver   | 329    | 330 | 631    | 0 | 353    | 828 | 1155 | -      | - | 1322 | - | - |
| Stage 1              | 541    | 534 | -      | 0 | 737    | -   | -    | -      | - | -    | - | - |
| Stage 2              | 777    | 700 | -      | 0 | 534    | -   | -    | -      | - | -    | - | - |
| Platoon blocked, %   |        |     |        |   |        |     |      |        |   |      |   |   |
| Mov Cap-1 Maneuver   | 289    | 306 | 615    | - | 327    | 809 | 1141 | -      | - | 1308 | - | - |
| Mov Cap-2 Maneuver   | 289    | 306 | -      | - | 327    | -   | -    | -      | - | -    | - | - |
| Stage 1              | 535    | 500 | -      | - | 730    | -   | -    | -      | - | -    | - | - |
| Stage 2              | 721    | 693 | -      | - | 500    | -   | -    | -      | - | -    | - | - |

| Approach             | EB | WB  | NB | SB  |
|----------------------|----|-----|----|-----|
| HCM Control Delay, s | 17 | 9.7 | 0  | 0.9 |
| HCM LOS              | C  | A   |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1141 | -   | -   | 327   | 809   | 1308  | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.083 | 0.06  | 0.042 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 17    | 9.7   | 7.9   | 0   | -   |
| HCM Lane LOS          | A    | -   | -   | C     | A     | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0.3   | 0.2   | 0.1   | -   | -   |

| Intersection             |        |        |        |      |       |      |
|--------------------------|--------|--------|--------|------|-------|------|
| Int Delay, s/veh         | 0      |        |        |      |       |      |
| Movement                 | EBL    | EBT    | WBT    | WBR  | SBL   | SBR  |
| Lane Configurations      |        | ↕      | ↕      |      | ↕     |      |
| Traffic Vol, veh/h       | 0      | 150    | 45     | 0    | 0     | 0    |
| Future Vol, veh/h        | 0      | 150    | 45     | 0    | 0     | 0    |
| Conflicting Peds, #/hr   | 13     | 0      | 0      | 13   | 0     | 0    |
| Sign Control             | Free   | Free   | Free   | Free | Stop  | Stop |
| RT Channelized           | -      | None   | -      | None | -     | None |
| Storage Length           | -      | -      | -      | -    | 0     | -    |
| Veh in Median Storage, # | -      | 0      | 0      | -    | 0     | -    |
| Grade, %                 | -      | 0      | 0      | -    | 0     | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92    | 92   |
| Heavy Vehicles, %        | 0      | 1      | 0      | 0    | 0     | 0    |
| Mvmt Flow                | 0      | 163    | 49     | 0    | 0     | 0    |
| Major/Minor              | Major1 | Major2 | Minor2 |      |       |      |
| Conflicting Flow All     | 62     | 0      | -      | 0    | 225   | 62   |
| Stage 1                  | -      | -      | -      | -    | 62    | -    |
| Stage 2                  | -      | -      | -      | -    | 163   | -    |
| Critical Hdwy            | 4.1    | -      | -      | -    | 6.4   | 6.2  |
| Critical Hdwy Stg 1      | -      | -      | -      | -    | 5.4   | -    |
| Critical Hdwy Stg 2      | -      | -      | -      | -    | 5.4   | -    |
| Follow-up Hdwy           | 2.2    | -      | -      | -    | 3.5   | 3.3  |
| Pot Cap-1 Maneuver       | 1554   | -      | -      | -    | 768   | 1009 |
| Stage 1                  | -      | -      | -      | -    | 966   | -    |
| Stage 2                  | -      | -      | -      | -    | 871   | -    |
| Platoon blocked, %       | -      | -      | -      | -    | -     | -    |
| Mov Cap-1 Maneuver       | 1535   | -      | -      | -    | 750   | 997  |
| Mov Cap-2 Maneuver       | -      | -      | -      | -    | 750   | -    |
| Stage 1                  | -      | -      | -      | -    | 954   | -    |
| Stage 2                  | -      | -      | -      | -    | 861   | -    |
| Approach                 | EB     | WB     |        | SB   |       |      |
| HCM Control Delay, s     | 0      | 0      |        | 0    |       |      |
| HCM LOS                  | A      |        |        |      |       |      |
| Minor Lane/Major Mvmt    | EBL    | EBT    | WBT    | WBR  | SBLn1 |      |
| Capacity (veh/h)         | 1535   | -      | -      | -    | -     |      |
| HCM Lane V/C Ratio       | -      | -      | -      | -    | -     |      |
| HCM Control Delay (s)    | 0      | -      | -      | -    | 0     |      |
| HCM Lane LOS             | A      | -      | -      | -    | A     |      |
| HCM 95th %tile Q(veh)    | 0      | -      | -      | -    | -     |      |

| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 3.4    |        |        |      |      |      |
| Movement                 | EBL    | EBR    | NBL    | NBT  | SBT  | SBR  |
| Lane Configurations      | W      |        |        | W    | W    |      |
| Traffic Vol, veh/h       | 65     | 85     | 20     | 185  | 250  | 25   |
| Future Vol, veh/h        | 65     | 85     | 20     | 185  | 250  | 25   |
| Conflicting Peds, #/hr   | 4      | 6      | 2      | 0    | 0    | 2    |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | -      | 0    | 0    | -    |
| Grade, %                 | 0      | -      | -      | 0    | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92   | 92   |
| Heavy Vehicles, %        | 1      | 1      | 0      | 2    | 4    | 0    |
| Mvmt Flow                | 71     | 92     | 22     | 201  | 272  | 27   |
| Major/Minor              | Minor2 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 537    | 294    | 301    | 0    | -    | 0    |
| Stage 1                  | 288    | -      | -      | -    | -    | -    |
| Stage 2                  | 249    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.41   | 6.21   | 4.1    | -    | -    | -    |
| Critical Hdwy Stg 1      | 5.41   | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.41   | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.509  | 3.309  | 2.2    | -    | -    | -    |
| Pot Cap-1 Maneuver       | 506    | 748    | 1272   | -    | -    | -    |
| Stage 1                  | 763    | -      | -      | -    | -    | -    |
| Stage 2                  | 795    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        |        | -    | -    | -    |
| Mov Cap-1 Maneuver       | 494    | 742    | 1270   | -    | -    | -    |
| Mov Cap-2 Maneuver       | 494    | -      | -      | -    | -    | -    |
| Stage 1                  | 746    | -      | -      | -    | -    | -    |
| Stage 2                  | 793    | -      | -      | -    | -    | -    |
| Approach                 | EB     | NB     | SB     |      |      |      |
| HCM Control Delay, s     | 13.1   | 0.8    | 0      |      |      |      |
| HCM LOS                  | B      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1  | SBT  | SBR  |      |
| Capacity (veh/h)         | 1270   | -      | 609    | -    | -    |      |
| HCM Lane V/C Ratio       | 0.017  | -      | 0.268  | -    | -    |      |
| HCM Control Delay (s)    | 7.9    | 0      | 13.1   | -    | -    |      |
| HCM Lane LOS             | A      | A      | B      | -    | -    |      |
| HCM 95th %tile Q(veh)    | 0.1    | -      | 1.1    | -    | -    |      |



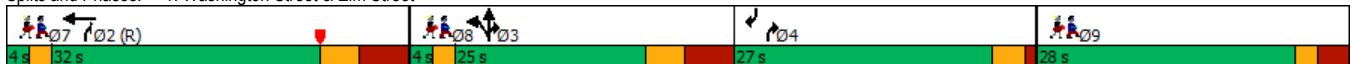


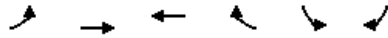
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL   | NBT   | NBR    | SBL  | SBT   | SBR  | Ø7   | Ø8   | Ø9 |
|-------------------------|------|------|------|------|-------|------|-------|-------|--------|------|-------|------|------|------|----|
| Lane Configurations     |      |      |      |      | ↕↕    |      |       | ↕     | ↕      |      |       | ↕    |      |      |    |
| Traffic Volume (vph)    | 0    | 0    | 0    | 0    | 705   | 55   | 40    | 160   | 800    | 0    | 0     | 250  |      |      |    |
| Future Volume (vph)     | 0    | 0    | 0    | 0    | 705   | 55   | 40    | 160   | 800    | 0    | 0     | 250  |      |      |    |
| Ideal Flow (vphpl)      | 1900 | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900   | 1900 | 1900  | 1900 |      |      |    |
| Satd. Flow (prot)       | 0    | 0    | 0    | 0    | 3454  | 0    | 0     | 1841  | 1583   | 0    | 0     | 1611 |      |      |    |
| Fit Permitted           |      |      |      |      |       |      |       | 0.990 |        |      |       |      |      |      |    |
| Satd. Flow (perm)       | 0    | 0    | 0    | 0    | 3454  | 0    | 0     | 1836  | 1583   | 0    | 0     | 1611 |      |      |    |
| Right Turn on Red       |      |      | Yes  |      |       | Yes  | Yes   |       | No     |      |       | Yes  |      |      |    |
| Satd. Flow (RTOR)       |      |      |      |      | 6     |      |       | 164   |        |      |       | 620  |      |      |    |
| Link Speed (mph)        |      | 30   |      |      | 30    |      |       | 30    |        |      | 30    |      |      |      |    |
| Link Distance (ft)      |      | 100  |      |      | 336   |      |       | 433   |        |      | 533   |      |      |      |    |
| Travel Time (s)         |      | 2.3  |      |      | 7.6   |      |       | 9.8   |        |      | 12.1  |      |      |      |    |
| Confl. Peds. (#/hr)     |      |      |      |      |       | 17   | 4     |       |        |      |       |      |      |      |    |
| Confl. Bikes (#/hr)     |      |      |      |      |       | 4    |       |       |        |      |       |      |      |      |    |
| Peak Hour Factor        | 0.92 | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92  | 0.92  | 0.92   | 0.92 | 0.92  | 0.92 |      |      |    |
| Heavy Vehicles (%)      | 0%   | 0%   | 0%   | 0%   | 2%    | 7%   | 3%    | 2%    | 2%     | 0%   | 0%    | 2%   |      |      |    |
| Shared Lane Traffic (%) |      |      |      |      |       |      |       |       |        |      |       |      |      |      |    |
| Lane Group Flow (vph)   | 0    | 0    | 0    | 0    | 826   | 0    | 0     | 217   | 870    | 0    | 0     | 272  |      |      |    |
| Turn Type               |      |      |      |      | NA    |      | Split | NA    | custom |      |       | Prot |      |      |    |
| Protected Phases        |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |       | 4    | 7    | 8    | 9  |
| Permitted Phases        |      |      |      |      |       |      |       |       |        |      |       |      |      |      |    |
| Detector Phase          |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |       | 4    |      |      |    |
| Switch Phase            |      |      |      |      |       |      |       |       |        |      |       |      |      |      |    |
| Minimum Initial (s)     |      |      |      |      | 6.0   |      | 6.0   | 6.0   |        |      | 6.0   | 2.0  | 2.0  | 5.0  |    |
| Minimum Split (s)       |      |      |      |      | 17.5  |      | 19.5  | 19.5  |        |      | 10.0  | 4.0  | 4.0  | 27.0 |    |
| Total Split (s)         |      |      |      |      | 32.0  |      | 25.0  | 25.0  |        |      | 27.0  | 4.0  | 4.0  | 28.0 |    |
| Total Split (%)         |      |      |      |      | 26.7% |      | 20.8% | 20.8% |        |      | 22.5% | 3%   | 3%   | 23%  |    |
| Yellow Time (s)         |      |      |      |      | 3.5   |      | 3.5   | 3.5   |        |      | 3.0   | 2.0  | 2.0  | 2.0  |    |
| All-Red Time (s)        |      |      |      |      | 4.5   |      | 4.5   | 4.5   |        |      | 1.0   | 0.0  | 0.0  | 3.0  |    |
| Lost Time Adjust (s)    |      |      |      |      | 0.0   |      | 0.0   | 0.0   |        |      | 0.0   |      |      |      |    |
| Total Lost Time (s)     |      |      |      |      | 8.0   |      | 8.0   | 8.0   |        |      | 4.0   |      |      |      |    |
| Lead/Lag                |      |      |      |      | Lag   |      | Lag   | Lag   |        |      |       |      | Lead | Lead |    |
| Lead-Lag Optimize?      |      |      |      |      |       |      |       |       |        |      |       |      |      |      |    |
| Recall Mode             |      |      |      |      | C-Min |      | None  | None  |        |      | None  | Min  | Min  | None |    |
| Act Effct Green (s)     |      |      |      |      | 43.6  |      |       | 17.0  | 87.6   |      |       | 23.0 |      |      |    |
| Actuated g/C Ratio      |      |      |      |      | 0.36  |      |       | 0.14  | 0.73   |      |       | 0.19 |      |      |    |
| v/c Ratio               |      |      |      |      | 0.66  |      |       | 0.54  | 0.75   |      |       | 0.34 |      |      |    |
| Control Delay           |      |      |      |      | 30.6  |      |       | 18.9  | 14.1   |      |       | 1.1  |      |      |    |
| Queue Delay             |      |      |      |      | 3.7   |      |       | 0.0   | 50.9   |      |       | 0.0  |      |      |    |
| Total Delay             |      |      |      |      | 34.3  |      |       | 18.9  | 65.1   |      |       | 1.1  |      |      |    |
| LOS                     |      |      |      |      | C     |      |       | B     | E      |      |       | A    |      |      |    |
| Approach Delay          |      |      |      |      | 34.3  |      |       | 55.8  |        |      | 1.1   |      |      |      |    |
| Approach LOS            |      |      |      |      | C     |      |       | E     |        |      | A     |      |      |      |    |
| Queue Length 50th (ft)  |      |      |      |      | 235   |      |       | 37    | 128    |      |       | 0    |      |      |    |
| Queue Length 95th (ft)  |      |      |      |      | m#444 |      |       | 114   | #924   |      |       | 0    |      |      |    |
| Internal Link Dist (ft) |      | 20   |      |      | 256   |      |       | 353   |        |      | 453   |      |      |      |    |
| Turn Bay Length (ft)    |      |      |      |      |       |      |       |       |        |      |       |      |      |      |    |
| Base Capacity (vph)     |      |      |      |      | 1258  |      |       | 401   | 1155   |      |       | 809  |      |      |    |
| Starvation Cap Reductn  |      |      |      |      | 335   |      |       | 0     | 0      |      |       | 0    |      |      |    |
| Spillback Cap Reductn   |      |      |      |      | 0     |      |       | 0     | 460    |      |       | 0    |      |      |    |
| Storage Cap Reductn     |      |      |      |      | 0     |      |       | 0     | 0      |      |       | 0    |      |      |    |
| Reduced v/c Ratio       |      |      |      |      | 0.89  |      |       | 0.54  | 1.25   |      |       | 0.34 |      |      |    |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 5 (4%), Referenced to phase 2:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 40.9  
 Intersection LOS: D  
 Intersection Capacity Utilization 64.1%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Washington Street & Elm Street





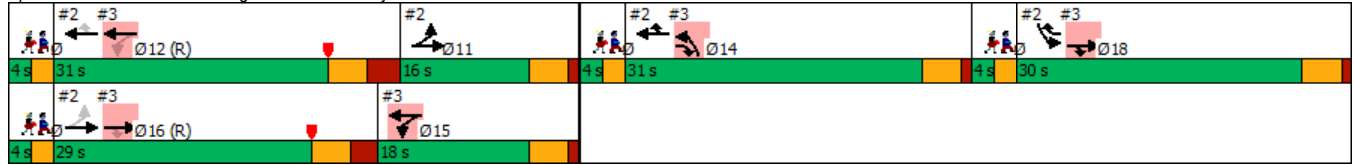
| Lane Group              | EBL    | EBT   | WBT   | WBR    | SBL   | SBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø12   | Ø14  | Ø15  | Ø16   |
|-------------------------|--------|-------|-------|--------|-------|------|------|------|------|------|-------|------|------|-------|
| Lane Configurations     | ↖      | ↗     | ↖     | ↖      | ↖↗    | ↖    |      |      |      |      |       |      |      |       |
| Traffic Volume (vph)    | 175    | 625   | 655   | 260    | 400   | 105  |      |      |      |      |       |      |      |       |
| Future Volume (vph)     | 175    | 625   | 655   | 260    | 400   | 105  |      |      |      |      |       |      |      |       |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900   | 1900  | 1900 |      |      |      |      |       |      |      |       |
| Storage Length (ft)     | 200    |       |       | 0      | 100   | 0    |      |      |      |      |       |      |      |       |
| Storage Lanes           | 1      |       |       | 1      | 1     | 0    |      |      |      |      |       |      |      |       |
| Taper Length (ft)       | 25     |       |       |        | 25    |      |      |      |      |      |       |      |      |       |
| Satd. Flow (prot)       | 1787   | 1863  | 1845  | 1599   | 3373  | 0    |      |      |      |      |       |      |      |       |
| Flt Permitted           | 0.174  |       |       |        | 0.962 |      |      |      |      |      |       |      |      |       |
| Satd. Flow (perm)       | 327    | 1863  | 1845  | 1519   | 3373  | 0    |      |      |      |      |       |      |      |       |
| Right Turn on Red       |        |       |       | Yes    |       | Yes  |      |      |      |      |       |      |      |       |
| Satd. Flow (RTOR)       |        |       |       | 283    | 26    |      |      |      |      |      |       |      |      |       |
| Link Speed (mph)        |        | 30    | 30    |        | 30    |      |      |      |      |      |       |      |      |       |
| Link Distance (ft)      |        | 336   | 185   |        | 438   |      |      |      |      |      |       |      |      |       |
| Travel Time (s)         |        | 7.6   | 4.2   |        | 10.0  |      |      |      |      |      |       |      |      |       |
| Confl. Peds. (#/hr)     |        |       |       | 7      |       | 18   |      |      |      |      |       |      |      |       |
| Confl. Bikes (#/hr)     |        |       |       | 3      |       |      |      |      |      |      |       |      |      |       |
| Peak Hour Factor        | 0.92   | 0.92  | 0.92  | 0.92   | 0.92  | 0.92 |      |      |      |      |       |      |      |       |
| Heavy Vehicles (%)      | 1%     | 2%    | 3%    | 1%     | 0%    | 0%   |      |      |      |      |       |      |      |       |
| Shared Lane Traffic (%) |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Lane Group Flow (vph)   | 190    | 679   | 712   | 283    | 549   | 0    |      |      |      |      |       |      |      |       |
| Turn Type               | custom | NA    | NA    | custom | Prot  |      |      |      |      |      |       |      |      |       |
| Protected Phases        | 11     | 11 16 | 12 14 | 14 18  | 18    |      | 2    | 4    | 6    | 8    | 12    | 14   | 15   | 16    |
| Permitted Phases        | 16     |       |       | 12     |       |      |      |      |      |      |       |      |      |       |
| Detector Phase          | 11     | 11 16 | 12 14 | 14 18  | 18    |      |      |      |      |      |       |      |      |       |
| Switch Phase            |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Minimum Initial (s)     | 8.0    |       |       |        | 8.0   |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0   | 8.0  | 8.0  | 8.0   |
| Minimum Split (s)       | 12.5   |       |       |        | 20.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 15.0  | 19.0 | 12.5 | 16.5  |
| Total Split (s)         | 16.0   |       |       |        | 30.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 31.0  | 31.0 | 18.0 | 29.0  |
| Total Split (%)         | 13.3%  |       |       |        | 25.0% |      | 3%   | 3%   | 3%   | 3%   | 26%   | 26%  | 15%  | 24%   |
| Yellow Time (s)         | 3.5    |       |       |        | 3.5   |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5   | 3.5  | 3.5  | 3.5   |
| All-Red Time (s)        | 1.0    |       |       |        | 1.0   |      | 0.0  | 0.0  | 0.0  | 0.0  | 3.0   | 1.0  | 1.0  | 2.5   |
| Lost Time Adjust (s)    | 0.0    |       |       |        | 0.0   |      |      |      |      |      |       |      |      |       |
| Total Lost Time (s)     | 4.5    |       |       |        | 4.5   |      |      |      |      |      |       |      |      |       |
| Lead/Lag                |        |       |       |        | Lag   |      | Lead | Lead | Lead | Lead | Lag   | Lag  |      | Lag   |
| Lead-Lag Optimize?      |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Recall Mode             | None   |       |       |        | None  |      | Min  | Min  | Min  | Min  | C-Min | None | None | C-Min |
| Act Effect Green (s)    | 36.0   | 36.0  | 49.0  | 78.5   | 25.5  |      |      |      |      |      |       |      |      |       |
| Actuated g/C Ratio      | 0.30   | 0.30  | 0.41  | 0.65   | 0.21  |      |      |      |      |      |       |      |      |       |
| v/c Ratio               | 0.80   | 1.22  | 0.95  | 0.25   | 0.74  |      |      |      |      |      |       |      |      |       |
| Control Delay           | 65.6   | 145.0 | 16.9  | 1.7    | 49.2  |      |      |      |      |      |       |      |      |       |
| Queue Delay             | 0.0    | 0.5   | 44.6  | 0.9    | 4.1   |      |      |      |      |      |       |      |      |       |
| Total Delay             | 65.6   | 145.5 | 61.6  | 2.7    | 53.3  |      |      |      |      |      |       |      |      |       |
| LOS                     | E      | F     | E     | A      | D     |      |      |      |      |      |       |      |      |       |
| Approach Delay          |        | 128.0 | 44.8  |        | 53.3  |      |      |      |      |      |       |      |      |       |
| Approach LOS            |        | F     | D     |        | D     |      |      |      |      |      |       |      |      |       |
| Queue Length 50th (ft)  | 109    | ~500  | 272   | 20     | 197   |      |      |      |      |      |       |      |      |       |
| Queue Length 95th (ft)  | m#166  | #718  | m195  | m16    | 260   |      |      |      |      |      |       |      |      |       |
| Internal Link Dist (ft) |        | 256   | 105   |        | 358   |      |      |      |      |      |       |      |      |       |
| Turn Bay Length (ft)    | 200    |       |       |        | 100   |      |      |      |      |      |       |      |      |       |
| Base Capacity (vph)     | 238    | 558   | 753   | 1126   | 737   |      |      |      |      |      |       |      |      |       |
| Starvation Cap Reductn  | 0      | 26    | 182   | 582    | 0     |      |      |      |      |      |       |      |      |       |
| Spillback Cap Reductn   | 0      | 35    | 63    | 0      | 119   |      |      |      |      |      |       |      |      |       |
| Storage Cap Reductn     | 0      | 0     | 0     | 0      | 0     |      |      |      |      |      |       |      |      |       |
| Reduced v/c Ratio       | 0.80   | 1.30  | 1.25  | 0.52   | 0.89  |      |      |      |      |      |       |      |      |       |

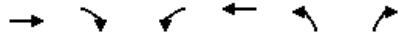
**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.30  
 Intersection Signal Delay: 76.7  
 Intersection Capacity Utilization 72.2%  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Washington Street & Cherry Street



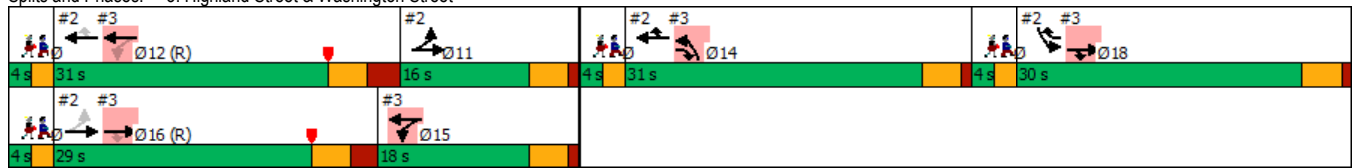


| Lane Group              | EBT   | EBR    | WBL    | WBT   | NBL   | NBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø11  | Ø12   | Ø16   | Ø18  |
|-------------------------|-------|--------|--------|-------|-------|------|------|------|------|------|------|-------|-------|------|
| Lane Configurations     | ↑↑    | ↑      | ↓      | ↑     | ↓     |      |      |      |      |      |      |       |       |      |
| Traffic Volume (vph)    | 805   | 220    | 110    | 660   | 255   | 40   |      |      |      |      |      |       |       |      |
| Future Volume (vph)     | 805   | 220    | 110    | 660   | 255   | 40   |      |      |      |      |      |       |       |      |
| Ideal Flow (vphpl)      | 1900  | 1900   | 1900   | 1900  | 1900  | 1900 |      |      |      |      |      |       |       |      |
| Storage Length (ft)     |       | 85     | 0      |       | 0     | 0    |      |      |      |      |      |       |       |      |
| Storage Lanes           |       | 1      | 1      |       | 1     | 0    |      |      |      |      |      |       |       |      |
| Taper Length (ft)       |       |        | 25     |       | 25    |      |      |      |      |      |      |       |       |      |
| Satd. Flow (prot)       | 3539  | 1615   | 1787   | 1845  | 1753  | 0    |      |      |      |      |      |       |       |      |
| Flt Permitted           |       |        | 0.163  |       | 0.959 |      |      |      |      |      |      |       |       |      |
| Satd. Flow (perm)       | 3539  | 1511   | 307    | 1845  | 1753  | 0    |      |      |      |      |      |       |       |      |
| Right Turn on Red       |       | Yes    |        |       |       | Yes  |      |      |      |      |      |       |       |      |
| Satd. Flow (RTOR)       |       | 189    |        |       | 6     |      |      |      |      |      |      |       |       |      |
| Link Speed (mph)        | 30    |        |        | 30    | 30    |      |      |      |      |      |      |       |       |      |
| Link Distance (ft)      | 185   |        |        | 301   | 145   |      |      |      |      |      |      |       |       |      |
| Travel Time (s)         | 4.2   |        |        | 6.8   | 3.3   |      |      |      |      |      |      |       |       |      |
| Confl. Peds. (#/hr)     |       | 11     |        |       |       | 6    |      |      |      |      |      |       |       |      |
| Peak Hour Factor        | 0.92  | 0.92   | 0.92   | 0.92  | 0.92  | 0.92 |      |      |      |      |      |       |       |      |
| Heavy Vehicles (%)      | 2%    | 0%     | 1%     | 3%    | 2%    | 0%   |      |      |      |      |      |       |       |      |
| Shared Lane Traffic (%) |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Lane Group Flow (vph)   | 875   | 239    | 120    | 717   | 320   | 0    |      |      |      |      |      |       |       |      |
| Turn Type               | NA    | custom | custom | NA    | Prot  |      |      |      |      |      |      |       |       |      |
| Protected Phases        | 16 18 | 14 18  | 15     | 12 15 | 14    |      | 2    | 4    | 6    | 8    | 11   | 12    | 16    | 18   |
| Permitted Phases        |       | 16     | 12     |       |       |      |      |      |      |      |      |       |       |      |
| Detector Phase          | 16 18 | 14 18  | 15     | 12 15 | 14    |      |      |      |      |      |      |       |       |      |
| Switch Phase            |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Minimum Initial (s)     |       |        | 8.0    |       | 8.0   |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0  | 8.0   | 8.0   | 8.0  |
| Minimum Split (s)       |       |        | 12.5   |       | 19.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 12.5 | 15.0  | 16.5  | 20.0 |
| Total Split (s)         |       |        | 18.0   |       | 31.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 16.0 | 31.0  | 29.0  | 30.0 |
| Total Split (%)         |       |        | 15.0%  |       | 25.8% |      | 3%   | 3%   | 3%   | 3%   | 13%  | 26%   | 24%   | 25%  |
| Yellow Time (s)         |       |        | 3.5    |       | 3.5   |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5  | 3.5   | 3.5   | 3.5  |
| All-Red Time (s)        |       |        | 1.0    |       | 1.0   |      | 0.0  | 0.0  | 0.0  | 0.0  | 1.0  | 3.0   | 2.5   | 1.0  |
| Lost Time Adjust (s)    |       |        | 0.0    |       | 0.0   |      |      |      |      |      |      |       |       |      |
| Total Lost Time (s)     |       |        | 4.5    |       | 4.5   |      |      |      |      |      |      |       |       |      |
| Lead/Lag                |       |        |        |       | Lag   |      | Lead | Lead | Lead | Lead |      | Lag   | Lag   | Lag  |
| Lead-Lag Optimize?      |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Recall Mode             |       |        | None   |       | None  |      | Min  | Min  | Min  | Min  | None | C-Min | C-Min | None |
| Act Effct Green (s)     | 47.0  | 76.5   | 40.0   | 36.0  | 26.5  |      |      |      |      |      |      |       |       |      |
| Actuated g/C Ratio      | 0.39  | 0.64   | 0.33   | 0.30  | 0.22  |      |      |      |      |      |      |       |       |      |
| v/c Ratio               | 0.63  | 0.22   | 0.45   | 1.30  | 0.82  |      |      |      |      |      |      |       |       |      |
| Control Delay           | 17.1  | 1.8    | 46.4   | 177.8 | 61.5  |      |      |      |      |      |      |       |       |      |
| Queue Delay             | 6.3   | 0.7    | 0.0    | 1.1   | 4.6   |      |      |      |      |      |      |       |       |      |
| Total Delay             | 23.4  | 2.5    | 46.4   | 178.9 | 66.1  |      |      |      |      |      |      |       |       |      |
| LOS                     | C     | A      | D      | F     | E     |      |      |      |      |      |      |       |       |      |
| Approach Delay          | 18.9  |        |        | 159.9 | 66.1  |      |      |      |      |      |      |       |       |      |
| Approach LOS            | B     |        |        | F     | E     |      |      |      |      |      |      |       |       |      |
| Queue Length 50th (ft)  | 115   | 14     | 64     | ~582  | 233   |      |      |      |      |      |      |       |       |      |
| Queue Length 95th (ft)  | m110  | m15    | m90    | #801  | #379  |      |      |      |      |      |      |       |       |      |
| Internal Link Dist (ft) | 105   |        |        | 221   | 65    |      |      |      |      |      |      |       |       |      |
| Turn Bay Length (ft)    |       | 85     |        |       |       |      |      |      |      |      |      |       |       |      |
| Base Capacity (vph)     | 1386  | 1076   | 268    | 553   | 391   |      |      |      |      |      |      |       |       |      |
| Starvation Cap Reductn  | 453   | 549    | 0      | 30    | 0     |      |      |      |      |      |      |       |       |      |
| Spillback Cap Reductn   | 376   | 0      | 0      | 73    | 33    |      |      |      |      |      |      |       |       |      |
| Storage Cap Reductn     | 0     | 0      | 0      | 0     | 0     |      |      |      |      |      |      |       |       |      |
| Reduced v/c Ratio       | 0.94  | 0.45   | 0.45   | 1.49  | 0.89  |      |      |      |      |      |      |       |       |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.30  
 Intersection Signal Delay: 77.5 Intersection LOS: E  
 Intersection Capacity Utilization 60.6% ICU Level of Service B  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Highland Street & Washington Street



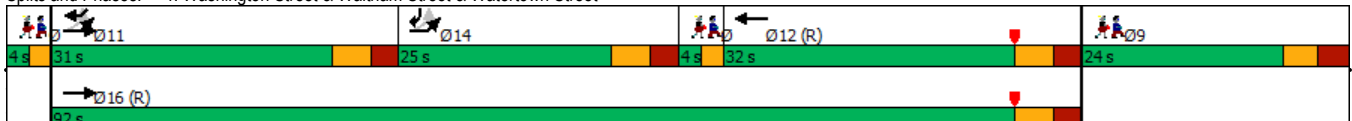


| Lane Group              | EBL2   | EBL   | EBT   | WBT   | WBR  | WBR2 | SBL  | SBR   | SWL  | SWR   | SWR2 | Ø1  | Ø2  | Ø9   | Ø16   |
|-------------------------|--------|-------|-------|-------|------|------|------|-------|------|-------|------|-----|-----|------|-------|
| Lane Configurations     |        | ↖     | ↗     | ↕     | ↕    |      |      | ↖     |      | ↖     | ↖    |     |     |      |       |
| Traffic Volume (vph)    | 5      | 355   | 485   | 300   | 220  | 5    | 0    | 160   | 0    | 310   | 45   |     |     |      |       |
| Future Volume (vph)     | 5      | 355   | 485   | 300   | 220  | 5    | 0    | 160   | 0    | 310   | 45   |     |     |      |       |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900  | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900 |     |     |      |       |
| Satd. Flow (prot)       | 0      | 1770  | 1863  | 3041  | 0    | 0    | 0    | 1627  | 0    | 1615  | 0    |     |     |      |       |
| Fit Permitted           |        | 0.995 |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Satd. Flow (perm)       | 0      | 1854  | 1863  | 3041  | 0    | 0    | 0    | 1627  | 0    | 1615  | 0    |     |     |      |       |
| Right Turn on Red       |        |       |       |       |      |      | Yes  | Yes   |      |       | No   |     |     |      |       |
| Satd. Flow (RTOR)       |        |       |       | 1     |      |      |      | 414   |      |       |      |     |     |      |       |
| Link Speed (mph)        |        |       | 30    | 30    |      |      | 30   |       | 30   |       |      |     |     |      |       |
| Link Distance (ft)      |        |       | 301   | 274   |      |      | 478  |       | 461  |       |      |     |     |      |       |
| Travel Time (s)         |        |       | 6.8   | 6.2   |      |      | 10.9 |       | 10.5 |       |      |     |     |      |       |
| Confl. Peds. (#/hr)     |        |       |       |       |      | 17   |      |       |      |       | 25   |     |     |      |       |
| Confl. Bikes (#/hr)     |        |       |       |       | 1    | 1    |      |       |      |       | 3    |     |     |      |       |
| Peak Hour Factor        | 0.92   | 0.92  | 0.92  | 0.92  | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 |     |     |      |       |
| Heavy Vehicles (%)      | 0%     | 2%    | 2%    | 4%    | 1%   | 0%   | 0%   | 1%    | 0%   | 2%    | 0%   |     |     |      |       |
| Shared Lane Traffic (%) |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Lane Group Flow (vph)   | 0      | 391   | 527   | 570   | 0    | 0    | 0    | 174   | 0    | 386   | 0    |     |     |      |       |
| Turn Type               | custom | Prot  | NA    | NA    |      |      |      | Prot  |      | Over  |      |     |     |      |       |
| Protected Phases        |        | 11 14 | 11 16 | 12    |      |      |      | 14    |      | 11    |      | 1   | 2   | 9    | 16    |
| Permitted Phases        | 11 14  |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Detector Phase          | 11 14  | 11 14 | 11 16 | 12    |      |      |      | 14    |      | 11    |      |     |     |      |       |
| Switch Phase            |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Minimum Initial (s)     |        |       |       | 6.0   |      |      |      | 6.0   |      | 6.0   |      | 2.0 | 2.0 | 5.0  | 6.0   |
| Minimum Split (s)       |        |       |       | 12.5  |      |      |      | 12.0  |      | 15.5  |      | 4.0 | 4.0 | 23.0 | 12.0  |
| Total Split (s)         |        |       |       | 32.0  |      |      |      | 25.0  |      | 31.0  |      | 4.0 | 4.0 | 24.0 | 92.0  |
| Total Split (%)         |        |       |       | 26.7% |      |      |      | 20.8% |      | 25.8% |      | 3%  | 3%  | 20%  | 77%   |
| Yellow Time (s)         |        |       |       | 3.5   |      |      |      | 3.5   |      | 3.5   |      | 2.0 | 2.0 | 3.0  | 3.5   |
| All-Red Time (s)        |        |       |       | 2.5   |      |      |      | 2.5   |      | 2.5   |      | 0.0 | 0.0 | 3.0  | 2.5   |
| Lost Time Adjust (s)    |        |       |       | 0.0   |      |      |      | 0.0   |      | 0.0   |      |     |     |      |       |
| Total Lost Time (s)     |        |       |       | 6.0   |      |      |      | 6.0   |      | 6.0   |      |     |     |      |       |
| Lead/Lag                |        |       |       | Lag   |      |      |      | Lag   |      | Lead  |      |     |     | Lead |       |
| Lead-Lag Optimize?      |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Recall Mode             |        |       |       | C-Min |      |      |      | None  |      | None  |      | Min | Min | None | C-Min |
| Act Effect Green (s)    |        | 53.6  | 98.3  | 31.2  |      |      |      | 9.0   |      | 38.7  |      |     |     |      |       |
| Actuated g/C Ratio      |        | 0.45  | 0.82  | 0.26  |      |      |      | 0.08  |      | 0.32  |      |     |     |      |       |
| v/c Ratio               |        | 0.47  | 0.35  | 0.72  |      |      |      | 0.35  |      | 0.74  |      |     |     |      |       |
| Control Delay           |        | 52.1  | 5.7   | 49.1  |      |      |      | 1.9   |      | 48.8  |      |     |     |      |       |
| Queue Delay             |        | 12.9  | 1.4   | 53.3  |      |      |      | 0.9   |      | 17.0  |      |     |     |      |       |
| Total Delay             |        | 65.0  | 7.1   | 102.5 |      |      |      | 2.7   |      | 65.8  |      |     |     |      |       |
| LOS                     |        | E     | A     | F     |      |      |      | A     |      | E     |      |     |     |      |       |
| Approach Delay          |        |       | 31.8  | 102.5 |      |      | 2.7  |       | 65.8 |       |      |     |     |      |       |
| Approach LOS            |        |       | C     | F     |      |      | A    |       | E    |       |      |     |     |      |       |
| Queue Length 50th (ft)  |        | 311   | 99    | 218   |      |      |      | 0     |      | 241   |      |     |     |      |       |
| Queue Length 95th (ft)  |        | m378  | m124  | #320  |      |      |      | 0     |      | #546  |      |     |     |      |       |
| Internal Link Dist (ft) |        |       | 221   | 194   |      |      | 398  |       | 381  |       |      |     |     |      |       |
| Turn Bay Length (ft)    |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Base Capacity (vph)     |        | 983   | 1526  | 790   |      |      |      | 606   |      | 520   |      |     |     |      |       |
| Starvation Cap Reductn  |        | 566   | 764   | 235   |      |      |      | 0     |      | 0     |      |     |     |      |       |
| Spillback Cap Reductn   |        | 0     | 95    | 309   |      |      |      | 229   |      | 125   |      |     |     |      |       |
| Storage Cap Reductn     |        | 0     | 0     | 0     |      |      |      | 0     |      | 0     |      |     |     |      |       |
| Reduced v/c Ratio       |        | 0.94  | 0.69  | 1.19  |      |      |      | 0.46  |      | 0.98  |      |     |     |      |       |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 113 (94%), Referenced to phase 12:WBT and 16:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 55.4 Intersection LOS: E  
 Intersection Capacity Utilization 73.2% ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Washington Street & Waltham Street & Watertown Street

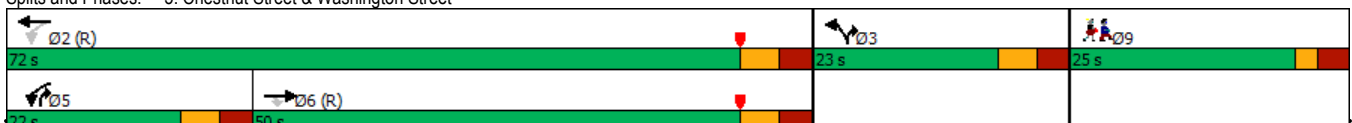


| Lane Group              | EBT   | EBR   | WBL   | WBT   | NBL   | NBR   | Ø9   |
|-------------------------|-------|-------|-------|-------|-------|-------|------|
| Lane Configurations     | ↑     | ↑     | ↑     | ↑     | ↑     | ↑     |      |
| Traffic Volume (vph)    | 445   | 40    | 250   | 415   | 110   | 195   |      |
| Future Volume (vph)     | 445   | 40    | 250   | 415   | 110   | 195   |      |
| Ideal Flow (vphpl)      | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Storage Length (ft)     |       | 35    | 0     |       | 0     | 150   |      |
| Storage Lanes           |       | 1     | 1     |       | 1     | 1     |      |
| Taper Length (ft)       |       |       | 25    |       | 25    |       |      |
| Satd. Flow (prot)       | 1863  | 1615  | 1805  | 1845  | 1787  | 1599  |      |
| Flt Permitted           |       |       | 0.340 |       | 0.950 |       |      |
| Satd. Flow (perm)       | 1863  | 1615  | 646   | 1845  | 1787  | 1599  |      |
| Right Turn on Red       |       | Yes   |       |       |       | Yes   |      |
| Satd. Flow (RTOR)       |       | 10    |       |       |       | 212   |      |
| Link Speed (mph)        | 30    |       |       | 30    | 30    |       |      |
| Link Distance (ft)      | 274   |       |       | 584   | 336   |       |      |
| Travel Time (s)         | 6.2   |       |       | 13.3  | 7.6   |       |      |
| Peak Hour Factor        | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |      |
| Heavy Vehicles (%)      | 2%    | 0%    | 0%    | 3%    | 1%    | 1%    |      |
| Shared Lane Traffic (%) |       |       |       |       |       |       |      |
| Lane Group Flow (vph)   | 484   | 43    | 272   | 451   | 120   | 212   |      |
| Turn Type               | NA    | Perm  | pm+pt | NA    | Prot  | pt+ov |      |
| Protected Phases        | 6     |       | 5     | 2     | 3     | 3.5   | 9    |
| Permitted Phases        |       | 6     | 2     |       |       |       |      |
| Detector Phase          | 6     | 6     | 5     | 2     | 3     | 3.5   |      |
| Switch Phase            |       |       |       |       |       |       |      |
| Minimum Initial (s)     | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   |       | 5.0  |
| Minimum Split (s)       | 12.5  | 12.5  | 12.5  | 12.5  | 12.5  |       | 24.0 |
| Total Split (s)         | 50.0  | 50.0  | 22.0  | 72.0  | 23.0  |       | 25.0 |
| Total Split (%)         | 41.7% | 41.7% | 18.3% | 60.0% | 19.2% |       | 21%  |
| Yellow Time (s)         | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   |       | 2.0  |
| All-Red Time (s)        | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   |       | 3.0  |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |       |      |
| Total Lost Time (s)     | 6.5   | 6.5   | 6.5   | 6.5   | 6.5   |       |      |
| Lead/Lag                | Lag   | Lag   | Lead  |       |       |       |      |
| Lead-Lag Optimize?      |       |       |       |       |       |       |      |
| Recall Mode             | C-Min | C-Min | None  | C-Min | None  |       | None |
| Act Effect Green (s)    | 66.0  | 66.0  | 84.4  | 84.4  | 13.0  | 28.8  |      |
| Actuated g/C Ratio      | 0.55  | 0.55  | 0.70  | 0.70  | 0.11  | 0.24  |      |
| v/c Ratio               | 0.47  | 0.05  | 0.48  | 0.35  | 0.62  | 0.39  |      |
| Control Delay           | 14.6  | 8.5   | 11.8  | 10.6  | 64.9  | 4.6   |      |
| Queue Delay             | 1.4   | 0.0   | 0.0   | 0.3   | 0.0   | 0.0   |      |
| Total Delay             | 16.0  | 8.5   | 11.8  | 10.9  | 64.9  | 4.6   |      |
| LOS                     | B     | A     | B     | B     | E     | A     |      |
| Approach Delay          | 15.4  |       |       | 11.3  | 26.4  |       |      |
| Approach LOS            | B     |       |       | B     | C     |       |      |
| Queue Length 50th (ft)  | 130   | 2     | 45    | 84    | 90    | 0     |      |
| Queue Length 95th (ft)  | 470   | 18    | 158   | 278   | 150   | 36    |      |
| Internal Link Dist (ft) | 194   |       |       | 504   | 256   |       |      |
| Turn Bay Length (ft)    |       | 35    |       |       |       | 150   |      |
| Base Capacity (vph)     | 1024  | 892   | 608   | 1298  | 245   | 582   |      |
| Starvation Cap Reductn  | 343   | 0     | 0     | 0     | 0     | 0     |      |
| Spillback Cap Reductn   | 0     | 0     | 0     | 354   | 0     | 0     |      |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     | 0     |      |
| Reduced v/c Ratio       | 0.71  | 0.05  | 0.45  | 0.48  | 0.49  | 0.36  |      |

**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 7 (6%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 15.8  
 Intersection LOS: B  
 Intersection Capacity Utilization 59.6%  
 ICU Level of Service B  
 Analysis Period (min) 15

**Splits and Phases: 5: Chestnut Street & Washington Street**



| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 0      |        |        |      |      |      |
| Movement                 | WBL    | WBR    | NBT    | NBR  | SBL  | SBT  |
| Lane Configurations      | W      |        | R      |      | L    | R    |
| Traffic Vol, veh/h       | 0      | 0      | 295    | 0    | 0    | 330  |
| Future Vol, veh/h        | 0      | 0      | 295    | 0    | 0    | 330  |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 3    | 3    | 0    |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | 0      | -    | -    | 0    |
| Grade, %                 | 0      | -      | 0      | -    | -    | 0    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92   | 92   |
| Heavy Vehicles, %        | 0      | 0      | 0      | 0    | 0    | 1    |
| Mvmt Flow                | 0      | 0      | 321    | 0    | 0    | 359  |
| Major/Minor              | Minor1 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 683    | 324    | 0      | 0    | 324  | 0    |
| Stage 1                  | 324    | -      | -      | -    | -    | -    |
| Stage 2                  | 359    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.4    | 6.2    | -      | -    | 4.1  | -    |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 3.3    | -      | -    | 2.2  | -    |
| Pot Cap-1 Maneuver       | 418    | 722    | -      | -    | 1247 | -    |
| Stage 1                  | 738    | -      | -      | -    | -    | -    |
| Stage 2                  | 711    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        | -      | -    | -    | -    |
| Mov Cap-1 Maneuver       | 417    | 720    | -      | -    | 1243 | -    |
| Mov Cap-2 Maneuver       | 417    | -      | -      | -    | -    | -    |
| Stage 1                  | 736    | -      | -      | -    | -    | -    |
| Stage 2                  | 711    | -      | -      | -    | -    | -    |
| Approach                 | WB     | NB     |        | SB   |      |      |
| HCM Control Delay, s     | 0      | 0      |        | 0    |      |      |
| HCM LOS                  | A      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBR    | WBLn1  | SBL  | SBT  |      |
| Capacity (veh/h)         | -      | -      | -      | 1243 | -    |      |
| HCM Lane V/C Ratio       | -      | -      | -      | -    | -    |      |
| HCM Control Delay (s)    | -      | -      | 0      | 0    | -    |      |
| HCM Lane LOS             | -      | -      | A      | A    | -    |      |
| HCM 95th %tile Q(veh)    | -      | -      | -      | 0    | -    |      |



| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 0.1    |        |        |      |      |      |
| Movement                 | EBL    | EBR    | NBL    | NBT  | SBT  | SBR  |
| Lane Configurations      | W      |        |        | W    | W    |      |
| Traffic Vol, veh/h       | 0      | 1      | 5      | 295  | 325  | 5    |
| Future Vol, veh/h        | 0      | 1      | 5      | 295  | 325  | 5    |
| Conflicting Peds, #/hr   | 0      | 0      | 21     | 0    | 0    | 21   |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | -      | 0    | 0    | -    |
| Grade, %                 | 0      | -      | -      | 0    | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92   | 92   |
| Heavy Vehicles, %        | 0      | 0      | 0      | 0    | 1    | 0    |
| Mvmt Flow                | 0      | 1      | 5      | 321  | 353  | 5    |
| Major/Minor              | Minor2 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 708    | 377    | 379    | 0    | -    | 0    |
| Stage 1                  | 377    | -      | -      | -    | -    | -    |
| Stage 2                  | 331    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.4    | 6.2    | 4.1    | -    | -    | -    |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 3.3    | 2.2    | -    | -    | -    |
| Pot Cap-1 Maneuver       | 404    | 674    | 1191   | -    | -    | -    |
| Stage 1                  | 698    | -      | -      | -    | -    | -    |
| Stage 2                  | 732    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        |        | -    | -    | -    |
| Mov Cap-1 Maneuver       | 386    | 661    | 1167   | -    | -    | -    |
| Mov Cap-2 Maneuver       | 386    | -      | -      | -    | -    | -    |
| Stage 1                  | 681    | -      | -      | -    | -    | -    |
| Stage 2                  | 717    | -      | -      | -    | -    | -    |
| Approach                 | EB     | NB     |        | SB   |      |      |
| HCM Control Delay, s     | 10.5   | 0.1    |        | 0    |      |      |
| HCM LOS                  | B      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1  | SBT  | SBR  |      |
| Capacity (veh/h)         | 1167   | -      | 661    | -    | -    |      |
| HCM Lane V/C Ratio       | 0.005  | -      | 0.002  | -    | -    |      |
| HCM Control Delay (s)    | 8.1    | 0      | 10.5   | -    | -    |      |
| HCM Lane LOS             | A      | A      | B      | -    | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | 0      | -    | -    |      |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.6  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 10   | 1    | 5    | 0    | 1    | 60   | 0    | 230  | 30   | 25   | 300  | 0    |
| Future Vol, veh/h        | 10   | 1    | 5    | 0    | 1    | 60   | 0    | 230  | 30   | 25   | 300  | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 1    | 0    | 0    | 1    | 3    | 0    | 3    | 3    | 0    | 3    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    |
| Mvmt Flow                | 11   | 1    | 5    | 0    | 1    | 65   | 0    | 250  | 33   | 27   | 326  | 0    |

| Major/Minor          | Minor2 |     | Minor1 |   | Major1 |     |      | Major2 |   |      |   |   |
|----------------------|--------|-----|--------|---|--------|-----|------|--------|---|------|---|---|
| Conflicting Flow All | 684    | 669 | 330    | - | 653    | 271 | 329  | 0      | 0 | 286  | 0 | 0 |
| Stage 1              | 383    | 383 | -      | - | 270    | -   | -    | -      | - | -    | - | - |
| Stage 2              | 301    | 286 | -      | - | 383    | -   | -    | -      | - | -    | - | - |
| Critical Hdwy        | 7.1    | 6.5 | 6.2    | - | 6.5    | 6.2 | 4.1  | -      | - | 4.1  | - | - |
| Critical Hdwy Stg 1  | 6.1    | 5.5 | -      | - | 5.5    | -   | -    | -      | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.1    | 5.5 | -      | - | 5.5    | -   | -    | -      | - | -    | - | - |
| Follow-up Hdwy       | 3.5    | 4   | 3.3    | - | 4      | 3.3 | 2.2  | -      | - | 2.2  | - | - |
| Pot Cap-1 Maneuver   | 365    | 381 | 716    | 0 | 389    | 773 | 1242 | -      | - | 1288 | - | - |
| Stage 1              | 644    | 616 | -      | 0 | 690    | -   | -    | -      | - | -    | - | - |
| Stage 2              | 712    | 679 | -      | 0 | 616    | -   | -    | -      | - | -    | - | - |
| Platoon blocked, %   |        |     |        |   |        |     |      |        |   |      |   |   |
| Mov Cap-1 Maneuver   | 326    | 369 | 713    | - | 377    | 770 | 1238 | -      | - | 1284 | - | - |
| Mov Cap-2 Maneuver   | 326    | 369 | -      | - | 377    | -   | -    | -      | - | -    | - | - |
| Stage 1              | 642    | 598 | -      | - | 688    | -   | -    | -      | - | -    | - | - |
| Stage 2              | 650    | 677 | -      | - | 598    | -   | -    | -      | - | -    | - | - |

| Approach             | EB   | WB   | NB | SB  |
|----------------------|------|------|----|-----|
| HCM Control Delay, s | 14.5 | 10.2 | 0  | 0.6 |
| HCM LOS              | B    | B    |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1238 | -   | -   | 396   | 757   | 1284  | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.044 | 0.088 | 0.021 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 14.5  | 10.2  | 7.9   | 0   | -   |
| HCM Lane LOS          | A    | -   | -   | B     | B     | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0.1   | 0.3   | 0.1   | -   | -   |

| Intersection             |        |        |        |      |       |      |
|--------------------------|--------|--------|--------|------|-------|------|
| Int Delay, s/veh         | 0      |        |        |      |       |      |
| Movement                 | EBL    | EBT    | WBT    | WBR  | SBL   | SBR  |
| Lane Configurations      |        | ↕      | ↕      |      | ↕     |      |
| Traffic Vol, veh/h       | 0      | 55     | 60     | 0    | 0     | 0    |
| Future Vol, veh/h        | 0      | 55     | 60     | 0    | 0     | 0    |
| Conflicting Peds, #/hr   | 1      | 0      | 0      | 1    | 0     | 0    |
| Sign Control             | Free   | Free   | Free   | Free | Stop  | Stop |
| RT Channelized           | -      | None   | -      | None | -     | None |
| Storage Length           | -      | -      | -      | -    | 0     | -    |
| Veh in Median Storage, # | -      | 0      | 0      | -    | 0     | -    |
| Grade, %                 | -      | 0      | 0      | -    | 0     | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92    | 92   |
| Heavy Vehicles, %        | 0      | 0      | 0      | 0    | 0     | 0    |
| Mvmt Flow                | 0      | 60     | 65     | 0    | 0     | 0    |
| Major/Minor              | Major1 | Major2 | Minor2 |      |       |      |
| Conflicting Flow All     | 66     | 0      | -      | 0    | 126   | 66   |
| Stage 1                  | -      | -      | -      | -    | 66    | -    |
| Stage 2                  | -      | -      | -      | -    | 60    | -    |
| Critical Hdwy            | 4.1    | -      | -      | -    | 6.4   | 6.2  |
| Critical Hdwy Stg 1      | -      | -      | -      | -    | 5.4   | -    |
| Critical Hdwy Stg 2      | -      | -      | -      | -    | 5.4   | -    |
| Follow-up Hdwy           | 2.2    | -      | -      | -    | 3.5   | 3.3  |
| Pot Cap-1 Maneuver       | 1549   | -      | -      | -    | 874   | 1003 |
| Stage 1                  | -      | -      | -      | -    | 962   | -    |
| Stage 2                  | -      | -      | -      | -    | 968   | -    |
| Platoon blocked, %       | -      | -      | -      | -    | -     | -    |
| Mov Cap-1 Maneuver       | 1548   | -      | -      | -    | 872   | 1002 |
| Mov Cap-2 Maneuver       | -      | -      | -      | -    | 872   | -    |
| Stage 1                  | -      | -      | -      | -    | 961   | -    |
| Stage 2                  | -      | -      | -      | -    | 967   | -    |
| Approach                 | EB     | WB     |        | SB   |       |      |
| HCM Control Delay, s     | 0      | 0      |        | 0    |       |      |
| HCM LOS                  |        |        |        | A    |       |      |
| Minor Lane/Major Mvmt    | EBL    | EBT    | WBT    | WBR  | SBLn1 |      |
| Capacity (veh/h)         | 1548   | -      | -      | -    | -     |      |
| HCM Lane V/C Ratio       | -      | -      | -      | -    | -     |      |
| HCM Control Delay (s)    | 0      | -      | -      | -    | 0     |      |
| HCM Lane LOS             | A      | -      | -      | -    | A     |      |
| HCM 95th %tile Q(veh)    | 0      | -      | -      | -    | -     |      |

| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 1.5    |        |        |      |      |      |
| Movement                 | EBL    | EBR    | NBL    | NBT  | SBT  | SBR  |
| Lane Configurations      | W      |        |        | W    | W    |      |
| Traffic Vol, veh/h       | 30     | 25     | 30     | 275  | 260  | 30   |
| Future Vol, veh/h        | 30     | 25     | 30     | 275  | 260  | 30   |
| Conflicting Peds, #/hr   | 0      | 3      | 8      | 0    | 0    | 8    |
| Sign Control             | Stop   | Stop   | Free   | Free | Free | Free |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | 0      | -      | -      | -    | -    | -    |
| Veh in Median Storage, # | 0      | -      | -      | 0    | 0    | -    |
| Grade, %                 | 0      | -      | -      | 0    | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92   | 92   |
| Heavy Vehicles, %        | 0      | 0      | 0      | 1    | 0    | 0    |
| Mvmt Flow                | 33     | 27     | 33     | 299  | 283  | 33   |
| Major/Minor              | Minor2 | Major1 | Major2 |      |      |      |
| Conflicting Flow All     | 673    | 311    | 324    | 0    | -    | 0    |
| Stage 1                  | 308    | -      | -      | -    | -    | -    |
| Stage 2                  | 365    | -      | -      | -    | -    | -    |
| Critical Hdwy            | 6.4    | 6.2    | 4.1    | -    | -    | -    |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.5    | 3.3    | 2.2    | -    | -    | -    |
| Pot Cap-1 Maneuver       | 424    | 734    | 1247   | -    | -    | -    |
| Stage 1                  | 750    | -      | -      | -    | -    | -    |
| Stage 2                  | 707    | -      | -      | -    | -    | -    |
| Platoon blocked, %       |        |        |        | -    | -    | -    |
| Mov Cap-1 Maneuver       | 404    | 726    | 1237   | -    | -    | -    |
| Mov Cap-2 Maneuver       | 404    | -      | -      | -    | -    | -    |
| Stage 1                  | 720    | -      | -      | -    | -    | -    |
| Stage 2                  | 701    | -      | -      | -    | -    | -    |
| Approach                 | EB     | NB     |        | SB   |      |      |
| HCM Control Delay, s     | 13.1   | 0.8    |        | 0    |      |      |
| HCM LOS                  | B      |        |        |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1  | SBT  | SBR  |      |
| Capacity (veh/h)         | 1237   | -      | 506    | -    | -    |      |
| HCM Lane V/C Ratio       | 0.026  | -      | 0.118  | -    | -    |      |
| HCM Control Delay (s)    | 8      | 0      | 13.1   | -    | -    |      |
| HCM Lane LOS             | A      | A      | B      | -    | -    |      |
| HCM 95th %tile Q(veh)    | 0.1    | -      | 0.4    | -    | -    |      |

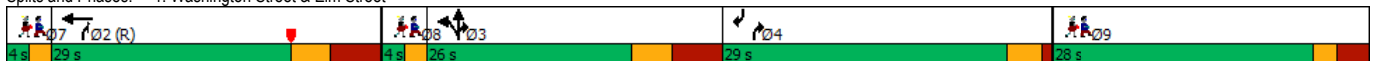


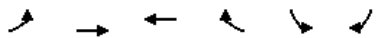
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL   | NBT   | NBR    | SBL  | SBT  | SBR   | Ø7   | Ø8   | Ø9   |
|-------------------------|------|------|------|------|-------|------|-------|-------|--------|------|------|-------|------|------|------|
| Lane Configurations     |      |      |      |      | ↑↑    |      |       | ↑↑    | ↑↑     |      |      | ↑↑    |      |      |      |
| Traffic Volume (vph)    | 0    | 0    | 0    | 0    | 615   | 35   | 25    | 140   | 790    | 0    | 0    | 325   |      |      |      |
| Future Volume (vph)     | 0    | 0    | 0    | 0    | 615   | 35   | 25    | 140   | 790    | 0    | 0    | 325   |      |      |      |
| Ideal Flow (vphpl)      | 1900 | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900   | 1900 | 1900 | 1900  |      |      |      |
| Satd. Flow (prot)       | 0    | 0    | 0    | 0    | 3404  | 0    | 0     | 1797  | 1538   | 0    | 0    | 1596  |      |      |      |
| Flt Permitted           |      |      |      |      |       |      |       | 0.993 |        |      |      |       |      |      |      |
| Satd. Flow (perm)       | 0    | 0    | 0    | 0    | 3404  | 0    | 0     | 1794  | 1538   | 0    | 0    | 1596  |      |      |      |
| Right Turn on Red       |      |      | Yes  |      |       | Yes  | Yes   |       | No     |      |      | Yes   |      |      |      |
| Satd. Flow (RTOR)       |      |      |      |      | 4     |      |       | 164   |        |      |      | 685   |      |      |      |
| Link Speed (mph)        |      | 30   |      |      | 30    |      |       | 30    |        |      | 30   |       |      |      |      |
| Link Distance (ft)      |      | 100  |      |      | 336   |      |       | 433   |        |      | 533  |       |      |      |      |
| Travel Time (s)         |      | 2.3  |      |      | 7.6   |      |       | 9.8   |        |      | 12.1 |       |      |      |      |
| Confl. Peds. (#/hr)     |      |      |      |      |       | 4    | 3     |       |        |      |      |       |      |      |      |
| Peak Hour Factor        | 0.92 | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92  | 0.92  | 0.92   | 0.92 | 0.92 | 0.92  |      |      |      |
| Heavy Vehicles (%)      | 0%   | 0%   | 0%   | 0%   | 5%    | 4%   | 5%    | 5%    | 5%     | 0%   | 0%   | 3%    |      |      |      |
| Shared Lane Traffic (%) |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Lane Group Flow (vph)   | 0    | 0    | 0    | 0    | 706   | 0    | 0     | 179   | 859    | 0    | 0    | 353   |      |      |      |
| Turn Type               |      |      |      |      | NA    |      | Split | NA    | custom |      |      | Prot  |      |      |      |
| Protected Phases        |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |      | 4     | 7    | 8    | 9    |
| Permitted Phases        |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Detector Phase          |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |      | 4     |      |      |      |
| Switch Phase            |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Minimum Initial (s)     |      |      |      |      | 6.0   |      |       | 6.0   |        |      |      | 6.0   | 2.0  | 2.0  | 5.0  |
| Minimum Split (s)       |      |      |      |      | 17.5  |      |       | 19.5  | 19.5   |      |      | 10.0  | 4.0  | 4.0  | 27.0 |
| Total Split (s)         |      |      |      |      | 29.0  |      |       | 26.0  | 26.0   |      |      | 29.0  | 4.0  | 4.0  | 28.0 |
| Total Split (%)         |      |      |      |      | 24.2% |      |       | 21.7% | 21.7%  |      |      | 24.2% | 3%   | 3%   | 23%  |
| Yellow Time (s)         |      |      |      |      | 3.5   |      |       | 3.5   | 3.5    |      |      | 3.0   | 2.0  | 2.0  | 2.0  |
| All-Red Time (s)        |      |      |      |      | 4.5   |      |       | 4.5   | 4.5    |      |      | 1.0   | 0.0  | 0.0  | 3.0  |
| Lost Time Adjust (s)    |      |      |      |      | 0.0   |      |       | 0.0   | 0.0    |      |      | 0.0   |      |      |      |
| Total Lost Time (s)     |      |      |      |      | 8.0   |      |       | 8.0   | 8.0    |      |      | 4.0   |      |      |      |
| Lead/Lag                |      |      |      |      | Lag   |      | Lag   | Lag   |        |      |      |       | Lead | Lead |      |
| Lead-Lag Optimize?      |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Recall Mode             |      |      |      |      | C-Min |      | None  | None  |        |      |      | None  | Min  | Min  | None |
| Act Effct Green (s)     |      |      |      |      | 35.7  |      |       | 18.0  | 82.7   |      |      | 25.0  |      |      |      |
| Actuated g/C Ratio      |      |      |      |      | 0.30  |      |       | 0.15  | 0.69   |      |      | 0.21  |      |      |      |
| v/c Ratio               |      |      |      |      | 0.70  |      |       | 0.44  | 0.81   |      |      | 0.40  |      |      |      |
| Control Delay           |      |      |      |      | 35.7  |      |       | 12.4  | 21.2   |      |      | 1.4   |      |      |      |
| Queue Delay             |      |      |      |      | 3.5   |      |       | 0.0   | 51.7   |      |      | 0.0   |      |      |      |
| Total Delay             |      |      |      |      | 39.1  |      |       | 12.4  | 72.9   |      |      | 1.4   |      |      |      |
| LOS                     |      |      |      |      | D     |      |       | B     | E      |      |      | A     |      |      |      |
| Approach Delay          |      |      |      |      | 39.1  |      |       | 62.5  |        |      | 1.4  |       |      |      |      |
| Approach LOS            |      |      |      |      | D     |      |       | E     |        |      | A    |       |      |      |      |
| Queue Length 50th (ft)  |      |      |      |      | 165   |      |       | 10    | 129    |      |      | 0     |      |      |      |
| Queue Length 95th (ft)  |      |      |      |      | m#455 |      |       | 75    | #927   |      |      | 0     |      |      |      |
| Internal Link Dist (ft) |      | 20   |      |      | 256   |      |       | 353   |        |      | 453  |       |      |      |      |
| Turn Bay Length (ft)    |      |      |      |      |       |      |       |       |        |      |      |       |      |      |      |
| Base Capacity (vph)     |      |      |      |      | 1015  |      |       | 408   | 1059   |      |      | 874   |      |      |      |
| Starvation Cap Reductn  |      |      |      |      | 215   |      |       | 0     | 0      |      |      | 0     |      |      |      |
| Spillback Cap Reductn   |      |      |      |      | 0     |      |       | 0     | 496    |      |      | 0     |      |      |      |
| Storage Cap Reductn     |      |      |      |      | 0     |      |       | 0     | 0      |      |      | 0     |      |      |      |
| Reduced v/c Ratio       |      |      |      |      | 0.88  |      |       | 0.44  | 1.53   |      |      | 0.40  |      |      |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 9 (8%), Referenced to phase 2:WBT, Start of Yellow  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 44.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 63.7%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Washington Street & Elm Street



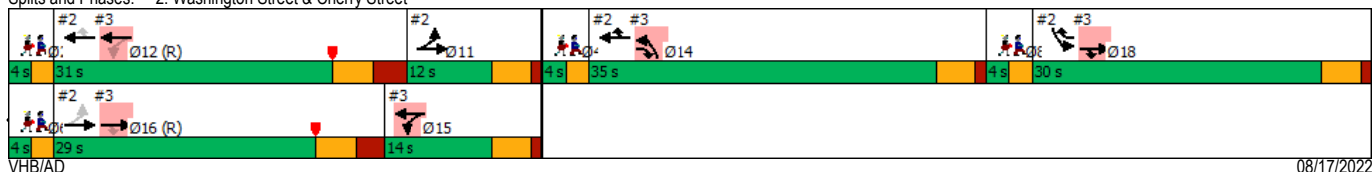


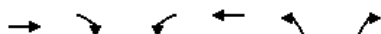
| Lane Group              | EBL    | EBT   | WBT   | WBR    | SBL   | SBR  | Ø2   | Ø4   | Ø6   | Ø8    | Ø12  | Ø14  | Ø15   | Ø16 |
|-------------------------|--------|-------|-------|--------|-------|------|------|------|------|-------|------|------|-------|-----|
| Lane Configurations     | ↖      | ↗     | ↖     | ↗      | ↖↗    | ↖↗   |      |      |      |       |      |      |       |     |
| Traffic Volume (vph)    | 105    | 685   | 580   | 175    | 575   | 70   |      |      |      |       |      |      |       |     |
| Future Volume (vph)     | 105    | 685   | 580   | 175    | 575   | 70   |      |      |      |       |      |      |       |     |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900   | 1900  | 1900 |      |      |      |       |      |      |       |     |
| Storage Length (ft)     | 200    |       |       | 0      | 100   | 0    |      |      |      |       |      |      |       |     |
| Storage Lanes           | 1      |       |       | 1      | 1     | 0    |      |      |      |       |      |      |       |     |
| Taper Length (ft)       | 25     |       |       |        | 25    |      |      |      |      |       |      |      |       |     |
| Satd. Flow (prot)       | 1787   | 1810  | 1810  | 1583   | 3343  | 0    |      |      |      |       |      |      |       |     |
| Flt Permitted           | 0.175  |       |       |        | 0.957 |      |      |      |      |       |      |      |       |     |
| Satd. Flow (perm)       | 329    | 1810  | 1810  | 1500   | 3343  | 0    |      |      |      |       |      |      |       |     |
| Right Turn on Red       |        |       |       | Yes    |       | Yes  |      |      |      |       |      |      |       |     |
| Satd. Flow (RTOR)       |        |       |       | 190    | 10    |      |      |      |      |       |      |      |       |     |
| Link Speed (mph)        |        | 30    | 30    |        | 30    |      |      |      |      |       |      |      |       |     |
| Link Distance (ft)      |        | 336   | 185   |        | 438   |      |      |      |      |       |      |      |       |     |
| Travel Time (s)         |        | 7.6   | 4.2   |        | 10.0  |      |      |      |      |       |      |      |       |     |
| Confl. Peds. (#/hr)     |        |       |       | 8      |       | 9    |      |      |      |       |      |      |       |     |
| Peak Hour Factor        | 0.92   | 0.92  | 0.92  | 0.92   | 0.92  | 0.92 |      |      |      |       |      |      |       |     |
| Heavy Vehicles (%)      | 1%     | 5%    | 5%    | 2%     | 3%    | 5%   |      |      |      |       |      |      |       |     |
| Shared Lane Traffic (%) |        |       |       |        |       |      |      |      |      |       |      |      |       |     |
| Lane Group Flow (vph)   | 114    | 745   | 630   | 190    | 701   | 0    |      |      |      |       |      |      |       |     |
| Turn Type               | custom | NA    | NA    | custom | Prot  |      |      |      |      |       |      |      |       |     |
| Protected Phases        | 11     | 11 16 | 12 14 | 14 18  | 18    |      | 2    | 4    | 6    | 8     | 12   | 14   | 15    | 16  |
| Permitted Phases        | 16     |       |       | 12     |       |      |      |      |      |       |      |      |       |     |
| Detector Phase          | 11     | 11 16 | 12 14 | 14 18  | 18    |      |      |      |      |       |      |      |       |     |
| Switch Phase            |        |       |       |        |       |      |      |      |      |       |      |      |       |     |
| Minimum Initial (s)     | 8.0    |       |       | 8.0    |       | 2.0  | 2.0  | 2.0  | 2.0  | 8.0   | 8.0  | 8.0  | 8.0   |     |
| Minimum Split (s)       | 12.5   |       |       | 20.0   |       | 4.0  | 4.0  | 4.0  | 4.0  | 15.0  | 19.0 | 12.5 | 16.5  |     |
| Total Split (s)         | 12.0   |       |       | 30.0   |       | 4.0  | 4.0  | 4.0  | 4.0  | 31.0  | 35.0 | 14.0 | 29.0  |     |
| Total Split (%)         | 10.0%  |       |       | 25.0%  |       | 3%   | 3%   | 3%   | 3%   | 26%   | 29%  | 12%  | 24%   |     |
| Yellow Time (s)         | 3.5    |       |       | 3.5    |       | 2.0  | 2.0  | 2.0  | 2.0  | 3.5   | 3.5  | 3.5  | 3.5   |     |
| All-Red Time (s)        | 1.0    |       |       | 1.0    |       | 0.0  | 0.0  | 0.0  | 0.0  | 3.0   | 1.0  | 1.0  | 2.5   |     |
| Lost Time Adjust (s)    | 0.0    |       |       | 0.0    |       |      |      |      |      |       |      |      |       |     |
| Total Lost Time (s)     | 4.5    |       |       | 4.5    |       |      |      |      |      |       |      |      |       |     |
| Lead/Lag                |        |       |       | Lag    |       | Lead | Lead | Lead | Lead | Lag   | Lag  |      | Lag   |     |
| Lead-Lag Optimize?      |        |       |       |        |       |      |      |      |      |       |      |      |       |     |
| Recall Mode             | None   |       |       | None   |       | Min  | Min  | Min  | Min  | C-Min | None | None | C-Min |     |
| Act Effct Green (s)     | 32.0   | 32.0  | 47.9  | 80.6   | 28.8  |      |      |      |      |       |      |      |       |     |
| Actuated g/C Ratio      | 0.27   | 0.27  | 0.40  | 0.67   | 0.24  |      |      |      |      |       |      |      |       |     |
| v/c Ratio               | 0.64   | 1.55  | 0.87  | 0.17   | 0.87  |      |      |      |      |       |      |      |       |     |
| Control Delay           | 53.4   | 281.0 | 12.8  | 1.4    | 56.4  |      |      |      |      |       |      |      |       |     |
| Queue Delay             | 0.0    | 0.3   | 23.9  | 0.4    | 14.9  |      |      |      |      |       |      |      |       |     |
| Total Delay             | 53.4   | 281.3 | 36.7  | 1.9    | 71.3  |      |      |      |      |       |      |      |       |     |
| LOS                     | D      | F     | D     | A      | E     |      |      |      |      |       |      |      |       |     |
| Approach Delay          |        | 251.0 | 28.7  |        | 71.3  |      |      |      |      |       |      |      |       |     |
| Approach LOS            |        | F     | C     |        | E     |      |      |      |      |       |      |      |       |     |
| Queue Length 50th (ft)  | 53     | ~725  | 222   | 5      | 276   |      |      |      |      |       |      |      |       |     |
| Queue Length 95th (ft)  | m83    | #1021 | m128  | m4     | #403  |      |      |      |      |       |      |      |       |     |
| Internal Link Dist (ft) |        | 256   | 105   |        | 358   |      |      |      |      |       |      |      |       |     |
| Turn Bay Length (ft)    | 200    |       |       |        | 100   |      |      |      |      |       |      |      |       |     |
| Base Capacity (vph)     | 178    | 482   | 799   | 1161   | 809   |      |      |      |      |       |      |      |       |     |
| Starvation Cap Reductn  | 0      | 18    | 184   | 613    | 0     |      |      |      |      |       |      |      |       |     |
| Spillback Cap Reductn   | 0      | 11    | 37    | 0      | 109   |      |      |      |      |       |      |      |       |     |
| Storage Cap Reductn     | 0      | 0     | 0     | 0      | 0     |      |      |      |      |       |      |      |       |     |
| Reduced v/c Ratio       | 0.64   | 1.61  | 1.02  | 0.35   | 1.00  |      |      |      |      |       |      |      |       |     |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.55  
 Intersection Signal Delay: 121.5 Intersection LOS: F  
 Intersection Capacity Utilization 68.8% ICU Level of Service C  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Washington Street & Cherry Street



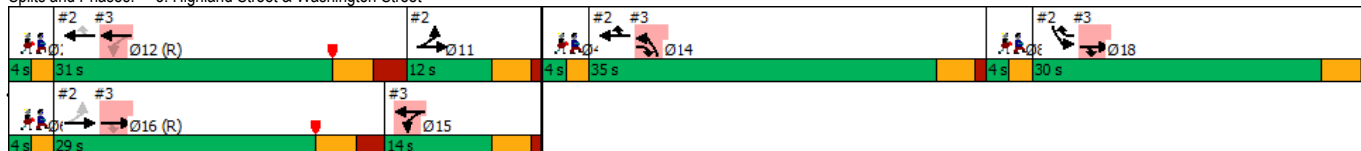


| Lane Group              | EBT   | EBR    | WBL    | WBT   | NBL   | NBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø11  | Ø12   | Ø16   | Ø18  |
|-------------------------|-------|--------|--------|-------|-------|------|------|------|------|------|------|-------|-------|------|
| Lane Configurations     | ↑↑    | ↑      | ↓      | ↑     | ↓     | ↓    |      |      |      |      |      |       |       |      |
| Traffic Volume (vph)    | 945   | 315    | 125    | 600   | 155   | 35   |      |      |      |      |      |       |       |      |
| Future Volume (vph)     | 945   | 315    | 125    | 600   | 155   | 35   |      |      |      |      |      |       |       |      |
| Ideal Flow (vphpl)      | 1900  | 1900   | 1900   | 1900  | 1900  | 1900 |      |      |      |      |      |       |       |      |
| Storage Length (ft)     |       | 85     | 0      |       | 0     | 0    |      |      |      |      |      |       |       |      |
| Storage Lanes           |       | 1      | 1      |       | 1     | 0    |      |      |      |      |      |       |       |      |
| Taper Length (ft)       |       |        | 25     |       | 25    |      |      |      |      |      |      |       |       |      |
| Satd. Flow (prot)       | 3471  | 1524   | 1770   | 1810  | 1743  | 0    |      |      |      |      |      |       |       |      |
| Flt Permitted           |       |        | 0.164  |       | 0.961 |      |      |      |      |      |      |       |       |      |
| Satd. Flow (perm)       | 3471  | 1446   | 305    | 1810  | 1743  | 0    |      |      |      |      |      |       |       |      |
| Right Turn on Red       |       | Yes    |        |       |       | Yes  |      |      |      |      |      |       |       |      |
| Satd. Flow (RTOR)       |       | 254    |        |       | 9     |      |      |      |      |      |      |       |       |      |
| Link Speed (mph)        | 30    |        |        | 30    | 30    |      |      |      |      |      |      |       |       |      |
| Link Distance (ft)      | 185   |        |        | 301   | 145   |      |      |      |      |      |      |       |       |      |
| Travel Time (s)         | 4.2   |        |        | 6.8   | 3.3   |      |      |      |      |      |      |       |       |      |
| Confl. Peds. (#/hr)     |       | 7      |        |       |       | 8    |      |      |      |      |      |       |       |      |
| Confl. Bikes (#/hr)     |       | 5      |        |       |       |      |      |      |      |      |      |       |       |      |
| Peak Hour Factor        | 0.92  | 0.92   | 0.92   | 0.92  | 0.92  | 0.92 |      |      |      |      |      |       |       |      |
| Heavy Vehicles (%)      | 4%    | 6%     | 2%     | 5%    | 1%    | 4%   |      |      |      |      |      |       |       |      |
| Shared Lane Traffic (%) |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Lane Group Flow (vph)   | 1027  | 342    | 136    | 652   | 206   | 0    |      |      |      |      |      |       |       |      |
| Turn Type               | NA    | custom | custom | NA    | Prot  |      |      |      |      |      |      |       |       |      |
| Protected Phases        | 16 18 | 14 18  | 15     | 12 15 | 14    |      | 2    | 4    | 6    | 8    | 11   | 12    | 16    | 18   |
| Permitted Phases        |       | 16     | 12     |       |       |      |      |      |      |      |      |       |       |      |
| Detector Phase          | 16 18 | 14 18  | 15     | 12 15 | 14    |      |      |      |      |      |      |       |       |      |
| Switch Phase            |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Minimum Initial (s)     |       |        | 8.0    |       | 8.0   |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0  | 8.0   | 8.0   | 8.0  |
| Minimum Split (s)       |       |        | 12.5   |       | 19.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 12.5 | 15.0  | 16.5  | 20.0 |
| Total Split (s)         |       |        | 14.0   |       | 35.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 12.0 | 31.0  | 29.0  | 30.0 |
| Total Split (%)         |       |        | 11.7%  |       | 29.2% |      | 3%   | 3%   | 3%   | 3%   | 10%  | 26%   | 24%   | 25%  |
| Yellow Time (s)         |       |        | 3.5    |       | 3.5   |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5  | 3.5   | 3.5   | 3.5  |
| All-Red Time (s)        |       |        | 1.0    |       | 1.0   |      | 0.0  | 0.0  | 0.0  | 0.0  | 1.0  | 3.0   | 2.5   | 1.0  |
| Lost Time Adjust (s)    |       |        | 0.0    |       | 0.0   |      |      |      |      |      |      |       |       |      |
| Total Lost Time (s)     |       |        | 4.5    |       | 4.5   |      |      |      |      |      |      |       |       |      |
| Lead/Lag                |       |        |        |       | Lag   |      | Lead | Lead | Lead | Lead |      | Lag   | Lag   | Lag  |
| Lead-Lag Optimize?      |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Recall Mode             |       |        | None   |       | None  |      | Min  | Min  | Min  | Min  | None | C-Min | C-Min | None |
| Act Effct Green (s)     | 50.3  | 78.6   | 36.0   | 32.0  | 25.4  |      |      |      |      |      |      |       |       |      |
| Actuated g/C Ratio      | 0.42  | 0.66   | 0.30   | 0.27  | 0.21  |      |      |      |      |      |      |       |       |      |
| v/c Ratio               | 0.71  | 0.32   | 0.66   | 1.35  | 0.55  |      |      |      |      |      |      |       |       |      |
| Control Delay           | 13.9  | 1.4    | 60.0   | 205.5 | 45.0  |      |      |      |      |      |      |       |       |      |
| Queue Delay             | 14.3  | 1.0    | 0.0    | 1.0   | 0.3   |      |      |      |      |      |      |       |       |      |
| Total Delay             | 28.1  | 2.3    | 60.0   | 206.5 | 45.3  |      |      |      |      |      |      |       |       |      |
| LOS                     | C     | A      | E      | F     | D     |      |      |      |      |      |      |       |       |      |
| Approach Delay          | 21.7  |        |        | 181.2 | 45.3  |      |      |      |      |      |      |       |       |      |
| Approach LOS            | C     |        |        | F     | D     |      |      |      |      |      |      |       |       |      |
| Queue Length 50th (ft)  | 102   | 7      | 92     | ~581  | 133   |      |      |      |      |      |      |       |       |      |
| Queue Length 95th (ft)  | m90   | m5     | m#115  | #781  | 205   |      |      |      |      |      |      |       |       |      |
| Internal Link Dist (ft) | 105   |        |        | 221   | 65    |      |      |      |      |      |      |       |       |      |
| Turn Bay Length (ft)    |       | 85     |        |       |       |      |      |      |      |      |      |       |       |      |
| Base Capacity (vph)     | 1453  | 1119   | 207    | 482   | 449   |      |      |      |      |      |      |       |       |      |
| Starvation Cap Reductn  | 425   | 520    | 0      | 0     | 0     |      |      |      |      |      |      |       |       |      |
| Spillback Cap Reductn   | 289   | 0      | 0      | 51    | 39    |      |      |      |      |      |      |       |       |      |
| Storage Cap Reductn     | 0     | 0      | 0      | 0     | 0     |      |      |      |      |      |      |       |       |      |
| Reduced v/c Ratio       | 1.00  | 0.57   | 0.66   | 1.51  | 0.50  |      |      |      |      |      |      |       |       |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.55  
 Intersection Signal Delay: 76.9  
 Intersection LOS: E  
 Intersection Capacity Utilization 56.7%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Highland Street & Washington Street



4: Washington Street & Waltham Street & Watertown Street

Timing Plan: AM Peak



| Lane Group              | EBL2   | EBL   | EBT   | WBT   | WBR  | WBR2 | SBL  | SBR   | SWL  | SWR   | SWR2 | Ø1  | Ø2  | Ø9   | Ø16   |
|-------------------------|--------|-------|-------|-------|------|------|------|-------|------|-------|------|-----|-----|------|-------|
| Lane Configurations     |        | ↔     | ↕     | ↕↔    |      |      |      | ↕     |      | ↕     |      |     |     |      |       |
| Traffic Volume (vph)    | 1      | 355   | 625   | 275   | 160  | 2    | 0    | 205   | 0    | 245   | 40   |     |     |      |       |
| Future Volume (vph)     | 1      | 355   | 625   | 275   | 160  | 2    | 0    | 205   | 0    | 245   | 40   |     |     |      |       |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900  | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900 |     |     |      |       |
| Satd. Flow (prot)       | 0      | 1736  | 1810  | 3143  | 0    | 0    | 0    | 1580  | 0    | 1576  | 0    |     |     |      |       |
| Flt Permitted           |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Satd. Flow (perm)       | 0      | 1827  | 1810  | 3143  | 0    | 0    | 0    | 1580  | 0    | 1576  | 0    |     |     |      |       |
| Right Turn on Red       |        |       |       |       |      | Yes  |      | Yes   |      |       | No   |     |     |      |       |
| Satd. Flow (RTOR)       |        |       |       |       |      |      |      | 454   |      |       |      |     |     |      |       |
| Link Speed (mph)        |        |       | 30    | 30    |      |      | 30   |       | 30   |       |      |     |     |      |       |
| Link Distance (ft)      |        |       | 301   | 274   |      |      | 478  |       | 461  |       |      |     |     |      |       |
| Travel Time (s)         |        |       | 6.8   | 6.2   |      |      | 10.9 |       | 10.5 |       |      |     |     |      |       |
| Confl. Peds. (#/hr)     |        |       |       |       |      | 13   |      |       |      |       | 13   |     |     |      |       |
| Peak Hour Factor        | 0.92   | 0.92  | 0.92  | 0.92  | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 |     |     |      |       |
| Heavy Vehicles (%)      | 0%     | 4%    | 5%    | 4%    | 1%   | 0%   | 0%   | 4%    | 0%   | 5%    | 0%   |     |     |      |       |
| Shared Lane Traffic (%) |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Lane Group Flow (vph)   | 0      | 387   | 679   | 475   | 0    | 0    | 0    | 223   | 0    | 309   | 0    |     |     |      |       |
| Turn Type               | custom | Prot  | NA    | NA    |      |      |      | Prot  |      | Over  |      |     |     |      |       |
| Protected Phases        |        | 11 14 | 11 16 | 12    |      |      |      | 14    |      | 11    |      | 1   | 2   | 9    | 16    |
| Permitted Phases        | 11 14  |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Detector Phase          | 11 14  | 11 14 | 11 16 | 12    |      |      |      | 14    |      | 11    |      |     |     |      |       |
| Switch Phase            |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Minimum Initial (s)     |        |       |       | 6.0   |      |      |      | 6.0   |      | 6.0   |      | 2.0 | 2.0 | 5.0  | 6.0   |
| Minimum Split (s)       |        |       |       | 12.5  |      |      |      | 12.0  |      | 15.5  |      | 4.0 | 4.0 | 23.0 | 12.0  |
| Total Split (s)         |        |       |       | 26.0  |      |      |      | 36.0  |      | 26.0  |      | 4.0 | 4.0 | 24.0 | 92.0  |
| Total Split (%)         |        |       |       | 21.7% |      |      |      | 30.0% |      | 21.7% |      | 3%  | 3%  | 20%  | 77%   |
| Yellow Time (s)         |        |       |       | 3.5   |      |      |      | 3.5   |      | 3.5   |      | 2.0 | 2.0 | 3.0  | 3.5   |
| All-Red Time (s)        |        |       |       | 2.5   |      |      |      | 2.5   |      | 2.5   |      | 0.0 | 0.0 | 3.0  | 2.5   |
| Lost Time Adjust (s)    |        |       |       | 0.0   |      |      |      | 0.0   |      | 0.0   |      |     |     |      |       |
| Total Lost Time (s)     |        |       |       | 6.0   |      |      |      | 6.0   |      | 6.0   |      |     |     |      |       |
| Lead/Lag                |        |       |       | Lag   |      |      |      | Lag   |      | Lead  |      |     |     | Lead |       |
| Lead-Lag Optimize?      |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Recall Mode             |        |       |       | C-Min |      |      |      | None  |      | None  |      | Min | Min | None | C-Min |
| Act Effct Green (s)     |        | 50.6  | 98.3  | 34.2  |      |      |      | 11.6  |      | 33.0  |      |     |     |      |       |
| Actuated g/C Ratio      |        | 0.42  | 0.82  | 0.28  |      |      |      | 0.10  |      | 0.28  |      |     |     |      |       |
| v/c Ratio               |        | 0.50  | 0.46  | 0.53  |      |      |      | 0.40  |      | 0.71  |      |     |     |      |       |
| Control Delay           |        | 50.6  | 6.2   | 39.9  |      |      |      | 2.1   |      | 52.1  |      |     |     |      |       |
| Queue Delay             |        | 1.8   | 2.8   | 4.1   |      |      |      | 0.9   |      | 6.0   |      |     |     |      |       |
| Total Delay             |        | 52.4  | 8.9   | 43.9  |      |      |      | 3.0   |      | 58.1  |      |     |     |      |       |
| LOS                     |        | D     | A     | D     |      |      |      | A     |      | E     |      |     |     |      |       |
| Approach Delay          |        |       | 24.7  | 43.9  |      |      | 3.0  |       | 58.1 |       |      |     |     |      |       |
| Approach LOS            |        |       | C     | D     |      |      | A    |       | E    |       |      |     |     |      |       |
| Queue Length 50th (ft)  |        | 312   | 92    | 165   |      |      |      | 0     |      | 196   |      |     |     |      |       |
| Queue Length 95th (ft)  |        | 339   | 135   | 248   |      |      |      | 0     |      | #465  |      |     |     |      |       |
| Internal Link Dist (ft) |        |       | 221   | 194   |      |      | 398  |       | 381  |       |      |     |     |      |       |
| Turn Bay Length (ft)    |        |       |       |       |      |      |      |       |      |       |      |     |     |      |       |
| Base Capacity (vph)     |        | 1050  | 1482  | 894   |      |      |      | 735   |      | 433   |      |     |     |      |       |
| Starvation Cap Reductn  |        | 488   | 663   | 329   |      |      |      | 0     |      | 0     |      |     |     |      |       |
| Spillback Cap Reductn   |        | 0     | 113   | 318   |      |      |      | 291   |      | 79    |      |     |     |      |       |
| Storage Cap Reductn     |        | 0     | 0     | 0     |      |      |      | 0     |      | 0     |      |     |     |      |       |
| Reduced v/c Ratio       |        | 0.69  | 0.83  | 0.84  |      |      |      | 0.50  |      | 0.87  |      |     |     |      |       |

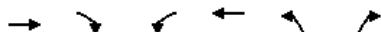
Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 117 (98%), Referenced to phase 12:WBT and 16:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 31.7 Intersection LOS: C  
 Intersection Capacity Utilization 65.6% ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Washington Street & Waltham Street & Watertown Street







| Lane Group              | EBT   | EBR   | WBL   | WBT   | NBL   | NBR   | Ø9   |
|-------------------------|-------|-------|-------|-------|-------|-------|------|
| Lane Configurations     | ↑     | ↑     | ↑     | ↑     | ↑     | ↑     |      |
| Traffic Volume (vph)    | 570   | 55    | 220   | 350   | 85    | 165   |      |
| Future Volume (vph)     | 570   | 55    | 220   | 350   | 85    | 165   |      |
| Ideal Flow (vphpl)      | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Storage Length (ft)     |       | 35    | 0     |       | 0     | 150   |      |
| Storage Lanes           |       | 1     | 1     |       | 1     | 1     |      |
| Taper Length (ft)       |       |       | 25    |       | 25    |       |      |
| Satd. Flow (prot)       | 1827  | 1482  | 1770  | 1827  | 1770  | 1583  |      |
| Flt Permitted           |       |       | 0.242 |       | 0.950 |       |      |
| Satd. Flow (perm)       | 1827  | 1449  | 451   | 1827  | 1770  | 1583  |      |
| Right Turn on Red       |       | Yes   |       |       |       | Yes   |      |
| Satd. Flow (RTOR)       |       | 13    |       |       |       | 179   |      |
| Link Speed (mph)        | 30    |       |       | 30    | 30    |       |      |
| Link Distance (ft)      | 274   |       |       | 584   | 336   |       |      |
| Travel Time (s)         | 6.2   |       |       | 13.3  | 7.6   |       |      |
| Conf. Bikes (#/hr)      |       | 3     |       |       |       |       |      |
| Peak Hour Factor        | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |      |
| Heavy Vehicles (%)      | 4%    | 9%    | 2%    | 4%    | 2%    | 2%    |      |
| Shared Lane Traffic (%) |       |       |       |       |       |       |      |
| Lane Group Flow (vph)   | 620   | 60    | 239   | 380   | 92    | 179   |      |
| Turn Type               | NA    | pm+ov | pm+pt | NA    | Prot  | pt+ov |      |
| Protected Phases        | 6     | 3     | 5     | 2     | 3     | 3.5   | 9    |
| Permitted Phases        |       | 6     | 2     |       |       |       |      |
| Detector Phase          | 6     | 3     | 5     | 2     | 3     | 3.5   |      |
| Switch Phase            |       |       |       |       |       |       |      |
| Minimum Initial (s)     | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   |       | 5.0  |
| Minimum Split (s)       | 12.5  | 12.5  | 12.5  | 12.5  | 12.5  |       | 24.0 |
| Total Split (s)         | 50.0  | 21.0  | 24.0  | 74.0  | 21.0  |       | 25.0 |
| Total Split (%)         | 41.7% | 17.5% | 20.0% | 61.7% | 17.5% |       | 21%  |
| Yellow Time (s)         | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   |       | 2.0  |
| All-Red Time (s)        | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   |       | 3.0  |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |       |      |
| Total Lost Time (s)     | 6.5   | 6.5   | 6.5   | 6.5   | 6.5   |       |      |
| Lead/Lag                | Lag   |       | Lead  |       |       |       |      |
| Lead-Lag Optimize?      |       |       |       |       |       |       |      |
| Recall Mode             | C-Min | None  | None  | C-Min | None  |       | None |
| Act Effct Green (s)     | 65.5  | 76.8  | 86.2  | 86.2  | 11.2  |       | 29.3 |
| Actuated g/C Ratio      | 0.55  | 0.64  | 0.72  | 0.72  | 0.09  |       | 0.24 |
| v/c Ratio               | 0.62  | 0.06  | 0.50  | 0.29  | 0.56  |       | 0.34 |
| Control Delay           | 18.4  | 7.1   | 11.8  | 9.3   | 64.3  |       | 4.5  |
| Queue Delay             | 1.3   | 0.0   | 0.0   | 0.0   | 0.0   |       | 0.0  |
| Total Delay             | 19.7  | 7.1   | 11.8  | 9.3   | 64.3  |       | 4.5  |
| LOS                     | B     | A     | B     | A     | E     |       | A    |
| Approach Delay          | 18.6  |       |       | 10.3  | 24.8  |       |      |
| Approach LOS            | B     |       |       | B     | C     |       |      |
| Queue Length 50th (ft)  | 100   | 1     | 36    | 62    | 69    |       | 0    |
| Queue Length 95th (ft)  | #716  | 24    | 133   | 218   | 122   |       | 34   |
| Internal Link Dist (ft) | 194   |       |       | 504   | 256   |       |      |
| Turn Bay Length (ft)    |       | 35    |       |       |       |       | 150  |
| Base Capacity (vph)     | 997   | 974   | 523   | 1311  | 213   |       | 558  |
| Starvation Cap Reductn  | 192   | 0     | 0     | 0     | 0     |       | 0    |
| Spillback Cap Reductn   | 0     | 0     | 0     | 130   | 0     |       | 0    |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |       | 0    |
| Reduced v/c Ratio       | 0.77  | 0.06  | 0.46  | 0.32  | 0.43  |       | 0.32 |

**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 10 (8%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 16.4 Intersection LOS: B  
 Intersection Capacity Utilization 63.4% ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 5: Chestnut Street & Washington Street



| Intersection             |        |        |        |        |        |        |
|--------------------------|--------|--------|--------|--------|--------|--------|
| Int Delay, s/veh         | 0.1    |        |        |        |        |        |
| Movement                 | WBL    | WBR    | NBT    | NBR    | SBL    | SBT    |
| Lane Configurations      | ↔      |        | ↑      |        |        | ↑      |
| Traffic Vol, veh/h       | 1      | 2      | 190    | 0      | 0      | 440    |
| Future Vol, veh/h        | 1      | 2      | 190    | 0      | 0      | 440    |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 11     | 11     | 0      |
| Sign Control             | Stop   | Stop   | Free   | Free   | Free   | Free   |
| RT Channelized           | -      | None   | -      | None   | -      | None   |
| Storage Length           | 0      | -      | -      | -      | -      | -      |
| Veh in Median Storage, # | 0      | -      | 0      | -      | -      | 0      |
| Grade, %                 | 0      | -      | 0      | -      | -      | 0      |
| Peak Hour Factor         | 92     | 92     | 92     | 92     | 92     | 92     |
| Heavy Vehicles, %        | 0      | 0      | 1      | 0      | 0      | 2      |
| Mvmt Flow                | 1      | 2      | 207    | 0      | 0      | 478    |
| Major/Minor              | Minor1 | Major1 | Major2 | Major2 | Major2 | Major2 |
| Conflicting Flow All     | 685    | 207    | 0      | -      | -      | -      |
| Stage 1                  | 207    | -      | -      | -      | -      | -      |
| Stage 2                  | 478    | -      | -      | -      | -      | -      |
| Critical Hdwy            | 6.4    | 6.2    | -      | -      | -      | -      |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -      | -      | -      |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -      | -      | -      |
| Follow-up Hdwy           | 3.5    | 3.3    | -      | -      | -      | -      |
| Pot Cap-1 Maneuver       | 417    | 839    | -      | 0      | 0      | -      |
| Stage 1                  | 832    | -      | -      | 0      | 0      | -      |
| Stage 2                  | 628    | -      | -      | 0      | 0      | -      |
| Platoon blocked, %       |        |        | -      | -      | -      | -      |
| Mov Cap-1 Maneuver       | 417    | 839    | -      | -      | -      | -      |
| Mov Cap-2 Maneuver       | 417    | -      | -      | -      | -      | -      |
| Stage 1                  | 832    | -      | -      | -      | -      | -      |
| Stage 2                  | 628    | -      | -      | -      | -      | -      |
| Approach                 | WB     | NB     | SB     | SB     | SB     | SB     |
| HCM Control Delay, s     | 10.8   | 0      | 0      |        |        |        |
| HCM LOS                  | B      |        |        |        |        |        |
| Minor Lane/Major Mvmt    | NBT    | WBLn1  | SBT    | SBT    | SBT    | SBT    |
| Capacity (veh/h)         | -      | 627    | -      |        |        |        |
| HCM Lane V/C Ratio       | -      | 0.005  | -      |        |        |        |
| HCM Control Delay (s)    | -      | 10.8   | -      |        |        |        |
| HCM Lane LOS             | -      | B      | -      |        |        |        |
| HCM 95th %tile Q(veh)    | -      | 0      | -      |        |        |        |

| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.1    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations      | ↔      |        |       | ↕      |      | ↔    |
| Traffic Vol, veh/h       | 0      | 0      | 5     | 190    | 425  | 15   |
| Future Vol, veh/h        | 0      | 0      | 5     | 190    | 425  | 15   |
| Conflicting Peds, #/hr   | 0      | 0      | 41    | 0      | 0    | 41   |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92    | 92     | 92   | 92   |
| Heavy Vehicles, %        | 0      | 0      | 0     | 1      | 2    | 0    |
| Mvmt Flow                | 0      | 0      | 5     | 207    | 462  | 16   |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 728    | 511    | 519   | 0      | 0    |      |
| Stage 1                  | 511    | -      | -     | -      | -    |      |
| Stage 2                  | 217    | -      | -     | -      | -    |      |
| Critical Hdwy            | 6.4    | 6.2    | 4.1   | -      | -    |      |
| Critical Hdwy Stg 1      | 5.4    | -      | -     | -      | -    |      |
| Critical Hdwy Stg 2      | 5.4    | -      | -     | -      | -    |      |
| Follow-up Hdwy           | 3.5    | 3.3    | 2.2   | -      | -    |      |
| Pot Cap-1 Maneuver       | 393    | 567    | 1057  | -      | -    |      |
| Stage 1                  | 606    | -      | -     | -      | -    |      |
| Stage 2                  | 824    | -      | -     | -      | -    |      |
| Platoon blocked, %       | -      | -      | -     | -      | -    |      |
| Mov Cap-1 Maneuver       | 361    | 545    | 1016  | -      | -    |      |
| Mov Cap-2 Maneuver       | 361    | -      | -     | -      | -    |      |
| Stage 1                  | 579    | -      | -     | -      | -    |      |
| Stage 2                  | 792    | -      | -     | -      | -    |      |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 0      | 0.2    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1016   | -      | -     | -      | -    |      |
| HCM Lane V/C Ratio       | 0.005  | -      | -     | -      | -    |      |
| HCM Control Delay (s)    | 8.6    | 0      | 0     | -      | -    |      |
| HCM Lane LOS             | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | -     | -      | -    |      |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.9  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↔    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 15   | 5    | 5    | 0    | 0    | 50   | 0    | 130  | 95   | 55   | 370  | 0    |
| Future Vol, veh/h        | 15   | 5    | 5    | 0    | 0    | 50   | 0    | 130  | 95   | 55   | 370  | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 13   | 0    | 0    | 13   | 13   | 0    | 11   | 11   | 0    | 13   |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 0    | 2    | 0    |
| Mvmt Flow                | 16   | 5    | 5    | 0    | 0    | 54   | 0    | 141  | 103  | 60   | 402  | 0    |

| Major/Minor          | Minor2 |     |     | Minor1 |     |     | Major1 |   |   | Major2 |   |   |
|----------------------|--------|-----|-----|--------|-----|-----|--------|---|---|--------|---|---|
| Conflicting Flow All | 768    | 790 | 428 | -      | 739 | 217 | 415    | 0 | 0 | 255    | 0 | 0 |
| Stage 1              | 535    | 535 | -   | -      | 204 | -   | -      | - | - | -      | - | - |
| Stage 2              | 233    | 255 | -   | -      | 535 | -   | -      | - | - | -      | - | - |
| Critical Hdwy        | 7.1    | 6.5 | 6.2 | -      | 6.5 | 6.2 | 4.1    | - | - | 4.1    | - | - |
| Critical Hdwy Stg 1  | 6.1    | 5.5 | -   | -      | 5.5 | -   | -      | - | - | -      | - | - |
| Critical Hdwy Stg 2  | 6.1    | 5.5 | -   | -      | 5.5 | -   | -      | - | - | -      | - | - |
| Follow-up Hdwy       | 3.5    | 4   | 3.3 | -      | 4   | 3.3 | 2.2    | - | - | 2.2    | - | - |
| Pot Cap-1 Maneuver   | 321    | 325 | 631 | 0      | 347 | 828 | 1155   | - | - | 1322   | - | - |
| Stage 1              | 533    | 527 | -   | 0      | 737 | -   | -      | - | - | -      | - | - |
| Stage 2              | 775    | 700 | -   | 0      | 527 | -   | -      | - | - | -      | - | - |
| Platoon blocked, %   | -      | -   | -   | -      | -   | -   | -      | - | - | -      | - | - |
| Mov Cap-1 Maneuver   | 279    | 299 | 615 | -      | 319 | 809 | 1141   | - | - | 1308   | - | - |
| Mov Cap-2 Maneuver   | 279    | 299 | -   | -      | 319 | -   | -      | - | - | -      | - | - |
| Stage 1              | 527    | 490 | -   | -      | 730 | -   | -      | - | - | -      | - | - |
| Stage 2              | 714    | 693 | -   | -      | 490 | -   | -      | - | - | -      | - | - |

| Approach             | EB   | WB  | NB | SB |
|----------------------|------|-----|----|----|
| HCM Control Delay, s | 17.4 | 9.8 | 0  | 1  |
| HCM LOS              | C    | A   |    |    |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1141 | -   | -   | 318   | 809   | 1308  | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.085 | 0.067 | 0.046 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 17.4  | 9.8   | 7.9   | 0   | -   |
| HCM Lane LOS          | A    | -   | -   | C     | A     | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0.3   | 0.2   | 0.1   | -   | -   |

| Intersection             |        |        |        |      |       |      |
|--------------------------|--------|--------|--------|------|-------|------|
| Int Delay, s/veh         | 0.5    |        |        |      |       |      |
| Movement                 | EBL    | EBT    | WBT    | WBR  | SBL   | SBR  |
| Lane Configurations      |        | ↕      | ↕      |      | ↕     |      |
| Traffic Vol, veh/h       | 5      | 150    | 45     | 1    | 2     | 5    |
| Future Vol, veh/h        | 5      | 150    | 45     | 1    | 2     | 5    |
| Conflicting Peds, #/hr   | 13     | 0      | 0      | 13   | 0     | 0    |
| Sign Control             | Free   | Free   | Free   | Free | Stop  | Stop |
| RT Channelized           | -      | None   | -      | None | -     | None |
| Storage Length           | -      | -      | -      | -    | 0     | -    |
| Veh in Median Storage, # | -      | 0      | 0      | -    | 0     | -    |
| Grade, %                 | -      | 0      | 0      | -    | 0     | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92    | 92   |
| Heavy Vehicles, %        | 0      | 1      | 0      | 0    | 0     | 0    |
| Mvmt Flow                | 5      | 163    | 49     | 1    | 2     | 5    |
| Major/Minor              | Major1 | Major2 | Minor2 |      |       |      |
| Conflicting Flow All     | 63     | 0      | -      | 0    | 236   | 63   |
| Stage 1                  | -      | -      | -      | -    | 63    | -    |
| Stage 2                  | -      | -      | -      | -    | 173   | -    |
| Critical Hdwy            | 4.1    | -      | -      | -    | 6.4   | 6.2  |
| Critical Hdwy Stg 1      | -      | -      | -      | -    | 5.4   | -    |
| Critical Hdwy Stg 2      | -      | -      | -      | -    | 5.4   | -    |
| Follow-up Hdwy           | 2.2    | -      | -      | -    | 3.5   | 3.3  |
| Pot Cap-1 Maneuver       | 1553   | -      | -      | -    | 757   | 1007 |
| Stage 1                  | -      | -      | -      | -    | 965   | -    |
| Stage 2                  | -      | -      | -      | -    | 862   | -    |
| Platoon blocked, %       | -      | -      | -      | -    | -     | -    |
| Mov Cap-1 Maneuver       | 1534   | -      | -      | -    | 736   | 995  |
| Mov Cap-2 Maneuver       | -      | -      | -      | -    | 736   | -    |
| Stage 1                  | -      | -      | -      | -    | 950   | -    |
| Stage 2                  | -      | -      | -      | -    | 852   | -    |
| Approach                 | EB     | WB     |        | SB   |       |      |
| HCM Control Delay, s     | 0.2    | 0      |        | 9    |       |      |
| HCM LOS                  |        |        |        | A    |       |      |
| Minor Lane/Major Mvmt    | EBL    | EBT    | WBT    | WBR  | SBLn1 |      |
| Capacity (veh/h)         | 1534   | -      | -      | -    | 904   |      |
| HCM Lane V/C Ratio       | 0.004  | -      | -      | -    | 0.008 |      |
| HCM Control Delay (s)    | 7.4    | 0      | -      | -    | 9     |      |
| HCM Lane LOS             | A      | A      | -      | -    | A     |      |
| HCM 95th %tile Q(veh)    | 0      | -      | -      | -    | 0     |      |

| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 3.4    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations      | ↔      |        |       | ↕      |      | ↔    |
| Traffic Vol, veh/h       | 65     | 85     | 20    | 185    | 250  | 25   |
| Future Vol, veh/h        | 65     | 85     | 20    | 185    | 250  | 25   |
| Conflicting Peds, #/hr   | 4      | 6      | 2     | 0      | 0    | 2    |
| Sign Control             | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92    | 92     | 92   | 92   |
| Heavy Vehicles, %        | 1      | 1      | 0     | 2      | 4    | 0    |
| Mvmt Flow                | 71     | 92     | 22    | 201    | 272  | 27   |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 537    | 294    | 301   | 0      | 0    |      |
| Stage 1                  | 288    | -      | -     | -      | -    |      |
| Stage 2                  | 249    | -      | -     | -      | -    |      |
| Critical Hdwy            | 6.41   | 6.21   | 4.1   | -      | -    |      |
| Critical Hdwy Stg 1      | 5.41   | -      | -     | -      | -    |      |
| Critical Hdwy Stg 2      | 5.41   | -      | -     | -      | -    |      |
| Follow-up Hdwy           | 3.509  | 3.309  | 2.2   | -      | -    |      |
| Pot Cap-1 Maneuver       | 506    | 748    | 1272  | -      | -    |      |
| Stage 1                  | 763    | -      | -     | -      | -    |      |
| Stage 2                  | 795    | -      | -     | -      | -    |      |
| Platoon blocked, %       | -      | -      | -     | -      | -    |      |
| Mov Cap-1 Maneuver       | 494    | 742    | 1270  | -      | -    |      |
| Mov Cap-2 Maneuver       | 494    | -      | -     | -      | -    |      |
| Stage 1                  | 746    | -      | -     | -      | -    |      |
| Stage 2                  | 793    | -      | -     | -      | -    |      |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 13.1   | 0.8    |       | 0      |      |      |
| HCM LOS                  | B      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1270   | -      | 609   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.017  | -      | 0.268 | -      | -    |      |
| HCM Control Delay (s)    | 7.9    | 0      | 13.1  | -      | -    |      |
| HCM Lane LOS             | A      | A      | B     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0.1    | -      | 1.1   | -      | -    |      |

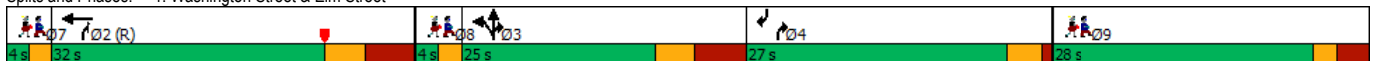


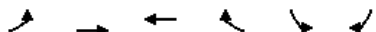
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL   | NBT   | NBR    | SBL  | SBT   | SBR  | Ø7   | Ø8   | Ø9 |
|-------------------------|------|------|------|------|-------|------|-------|-------|--------|------|-------|------|------|------|----|
| Lane Configurations     |      |      |      |      | ↑↑    |      |       | ↑↑    | ↑↑     |      |       | ↑↑   |      |      |    |
| Traffic Volume (vph)    | 0    | 0    | 0    | 0    | 710   | 55   | 40    | 160   | 810    | 0    | 0     | 250  |      |      |    |
| Future Volume (vph)     | 0    | 0    | 0    | 0    | 710   | 55   | 40    | 160   | 810    | 0    | 0     | 250  |      |      |    |
| Ideal Flow (vphpl)      | 1900 | 1900 | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900   | 1900 | 1900  | 1900 |      |      |    |
| Satd. Flow (prot)       | 0    | 0    | 0    | 0    | 3455  | 0    | 0     | 1841  | 1583   | 0    | 0     | 1611 |      |      |    |
| Flt Permitted           |      |      |      |      |       |      |       | 0.990 |        |      |       |      |      |      |    |
| Satd. Flow (perm)       | 0    | 0    | 0    | 0    | 3455  | 0    | 0     | 1836  | 1583   | 0    | 0     | 1611 |      |      |    |
| Right Turn on Red       |      |      | Yes  |      |       | Yes  | Yes   |       | No     |      |       | Yes  |      |      |    |
| Satd. Flow (RTOR)       |      |      |      |      | 6     |      |       | 164   |        |      |       | 620  |      |      |    |
| Link Speed (mph)        |      | 30   |      |      | 30    |      |       | 30    |        |      | 30    |      |      |      |    |
| Link Distance (ft)      |      | 100  |      |      | 336   |      |       | 433   |        |      | 533   |      |      |      |    |
| Travel Time (s)         |      | 2.3  |      |      | 7.6   |      |       | 9.8   |        |      | 12.1  |      |      |      |    |
| Confl. Peds. (#/hr)     |      |      |      |      |       | 17   | 4     |       |        |      |       |      |      |      |    |
| Confl. Bikes (#/hr)     |      |      |      |      |       | 4    |       |       |        |      |       |      |      |      |    |
| Peak Hour Factor        | 0.92 | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92  | 0.92  | 0.92   | 0.92 | 0.92  | 0.92 |      |      |    |
| Heavy Vehicles (%)      | 0%   | 0%   | 0%   | 0%   | 2%    | 7%   | 3%    | 2%    | 2%     | 0%   | 0%    | 2%   |      |      |    |
| Shared Lane Traffic (%) |      |      |      |      |       |      |       |       |        |      |       |      |      |      |    |
| Lane Group Flow (vph)   | 0    | 0    | 0    | 0    | 832   | 0    | 0     | 217   | 880    | 0    | 0     | 272  |      |      |    |
| Turn Type               |      |      |      |      | NA    |      | Split | NA    | custom |      |       | Prot |      |      |    |
| Protected Phases        |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |       | 4    | 7    | 8    | 9  |
| Permitted Phases        |      |      |      |      |       |      |       |       |        |      |       |      |      |      |    |
| Detector Phase          |      |      |      |      | 2     |      | 3     | 3     | 2 3 4  |      |       | 4    |      |      |    |
| Switch Phase            |      |      |      |      |       |      |       |       |        |      |       |      |      |      |    |
| Minimum Initial (s)     |      |      |      |      | 6.0   |      | 6.0   | 6.0   |        |      | 6.0   | 2.0  | 2.0  | 5.0  |    |
| Minimum Split (s)       |      |      |      |      | 17.5  |      | 19.5  | 19.5  |        |      | 10.0  | 4.0  | 4.0  | 27.0 |    |
| Total Split (s)         |      |      |      |      | 32.0  |      | 25.0  | 25.0  |        |      | 27.0  | 4.0  | 4.0  | 28.0 |    |
| Total Split (%)         |      |      |      |      | 26.7% |      | 20.8% | 20.8% |        |      | 22.5% | 3%   | 3%   | 23%  |    |
| Yellow Time (s)         |      |      |      |      | 3.5   |      | 3.5   | 3.5   |        |      | 3.0   | 2.0  | 2.0  | 2.0  |    |
| All-Red Time (s)        |      |      |      |      | 4.5   |      | 4.5   | 4.5   |        |      | 1.0   | 0.0  | 0.0  | 3.0  |    |
| Lost Time Adjust (s)    |      |      |      |      | 0.0   |      | 0.0   | 0.0   |        |      | 0.0   |      |      |      |    |
| Total Lost Time (s)     |      |      |      |      | 8.0   |      | 8.0   | 8.0   |        |      | 4.0   |      |      |      |    |
| Lead/Lag                |      |      |      |      | Lag   |      | Lag   | Lag   |        |      |       | Lead | Lead |      |    |
| Lead-Lag Optimize?      |      |      |      |      |       |      |       |       |        |      |       |      |      |      |    |
| Recall Mode             |      |      |      |      | C-Min |      | None  | None  |        |      | None  | Min  | Min  | None |    |
| Act Effct Green (s)     |      |      |      |      | 43.6  |      |       | 17.0  | 87.6   |      | 23.0  |      |      |      |    |
| Actuated g/C Ratio      |      |      |      |      | 0.36  |      |       | 0.14  | 0.73   |      | 0.19  |      |      |      |    |
| v/c Ratio               |      |      |      |      | 0.66  |      |       | 0.54  | 0.76   |      | 0.34  |      |      |      |    |
| Control Delay           |      |      |      |      | 30.6  |      |       | 18.9  | 14.4   |      | 1.1   |      |      |      |    |
| Queue Delay             |      |      |      |      | 4.0   |      |       | 0.0   | 51.2   |      | 0.0   |      |      |      |    |
| Total Delay             |      |      |      |      | 34.7  |      |       | 18.9  | 65.6   |      | 1.1   |      |      |      |    |
| LOS                     |      |      |      |      | C     |      |       | B     | E      |      | A     |      |      |      |    |
| Approach Delay          |      |      |      |      | 34.7  |      |       | 56.4  |        |      | 1.1   |      |      |      |    |
| Approach LOS            |      |      |      |      | C     |      |       | E     |        |      | A     |      |      |      |    |
| Queue Length 50th (ft)  |      |      |      |      | 236   |      |       | 37    | 131    |      | 0     |      |      |      |    |
| Queue Length 95th (ft)  |      |      |      |      | m#445 |      |       | 114   | #941   |      | 0     |      |      |      |    |
| Internal Link Dist (ft) |      | 20   |      |      | 256   |      |       | 353   |        |      | 453   |      |      |      |    |
| Turn Bay Length (ft)    |      |      |      |      |       |      |       |       |        |      |       |      |      |      |    |
| Base Capacity (vph)     |      |      |      |      | 1258  |      |       | 401   | 1155   |      | 809   |      |      |      |    |
| Starvation Cap Reductn  |      |      |      |      | 336   |      |       | 0     | 0      |      | 0     |      |      |      |    |
| Spillback Cap Reductn   |      |      |      |      | 0     |      |       | 0     | 491    |      | 0     |      |      |      |    |
| Storage Cap Reductn     |      |      |      |      | 0     |      |       | 0     | 0      |      | 0     |      |      |      |    |
| Reduced v/c Ratio       |      |      |      |      | 0.90  |      |       | 0.54  | 1.33   |      | 0.34  |      |      |      |    |

**Intersection Summary**

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 5 (4%), Referenced to phase 2:WBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 41.3 Intersection LOS: D  
 Intersection Capacity Utilization 64.3% ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Washington Street & Elm Street



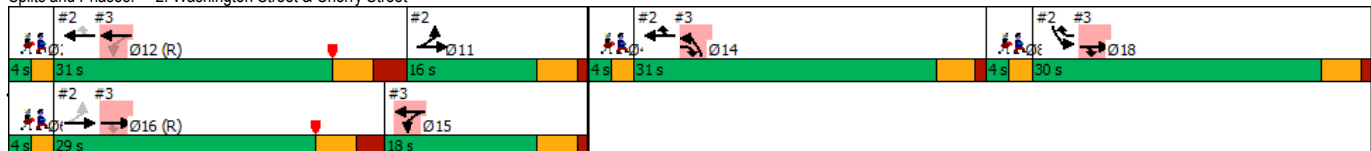


| Lane Group              | EBL    | EBT   | WBT   | WBR    | SBL   | SBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø12   | Ø14  | Ø15  | Ø16   |
|-------------------------|--------|-------|-------|--------|-------|------|------|------|------|------|-------|------|------|-------|
| Lane Configurations     | ↖      | ↗     | ↖     | ↗      | ↖↗    | ↖↗   |      |      |      |      |       |      |      |       |
| Traffic Volume (vph)    | 175    | 635   | 660   | 265    | 400   | 105  |      |      |      |      |       |      |      |       |
| Future Volume (vph)     | 175    | 635   | 660   | 265    | 400   | 105  |      |      |      |      |       |      |      |       |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900   | 1900  | 1900 |      |      |      |      |       |      |      |       |
| Storage Length (ft)     | 200    |       |       | 0      | 100   | 0    |      |      |      |      |       |      |      |       |
| Storage Lanes           | 1      |       |       | 1      | 1     | 0    |      |      |      |      |       |      |      |       |
| Taper Length (ft)       | 25     |       |       |        | 25    |      |      |      |      |      |       |      |      |       |
| Satd. Flow (prot)       | 1787   | 1863  | 1845  | 1599   | 3373  | 0    |      |      |      |      |       |      |      |       |
| Flt Permitted           | 0.174  |       |       |        | 0.962 |      |      |      |      |      |       |      |      |       |
| Satd. Flow (perm)       | 327    | 1863  | 1845  | 1519   | 3373  | 0    |      |      |      |      |       |      |      |       |
| Right Turn on Red       |        |       |       | Yes    |       | Yes  |      |      |      |      |       |      |      |       |
| Satd. Flow (RTOR)       |        |       |       | 288    | 26    |      |      |      |      |      |       |      |      |       |
| Link Speed (mph)        |        | 30    | 30    |        | 30    |      |      |      |      |      |       |      |      |       |
| Link Distance (ft)      |        | 336   | 185   |        | 438   |      |      |      |      |      |       |      |      |       |
| Travel Time (s)         |        | 7.6   | 4.2   |        | 10.0  |      |      |      |      |      |       |      |      |       |
| Confl. Peds. (#/hr)     |        |       |       | 7      |       | 18   |      |      |      |      |       |      |      |       |
| Confl. Bikes (#/hr)     |        |       |       | 3      |       |      |      |      |      |      |       |      |      |       |
| Peak Hour Factor        | 0.92   | 0.92  | 0.92  | 0.92   | 0.92  | 0.92 |      |      |      |      |       |      |      |       |
| Heavy Vehicles (%)      | 1%     | 2%    | 3%    | 1%     | 0%    | 0%   |      |      |      |      |       |      |      |       |
| Shared Lane Traffic (%) |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Lane Group Flow (vph)   | 190    | 690   | 717   | 288    | 549   | 0    |      |      |      |      |       |      |      |       |
| Turn Type               | custom | NA    | NA    | custom | Prot  |      |      |      |      |      |       |      |      |       |
| Protected Phases        | 11     | 11 16 | 12 14 | 14 18  | 18    |      | 2    | 4    | 6    | 8    | 12    | 14   | 15   | 16    |
| Permitted Phases        | 16     |       |       | 12     |       |      |      |      |      |      |       |      |      |       |
| Detector Phase          | 11     | 11 16 | 12 14 | 14 18  | 18    |      |      |      |      |      |       |      |      |       |
| Switch Phase            |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Minimum Initial (s)     | 8.0    |       |       | 8.0    |       |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0   | 8.0  | 8.0  | 8.0   |
| Minimum Split (s)       | 12.5   |       |       | 20.0   |       |      | 4.0  | 4.0  | 4.0  | 4.0  | 15.0  | 19.0 | 12.5 | 16.5  |
| Total Split (s)         | 16.0   |       |       | 30.0   |       |      | 4.0  | 4.0  | 4.0  | 4.0  | 31.0  | 31.0 | 18.0 | 29.0  |
| Total Split (%)         | 13.3%  |       |       | 25.0%  |       |      | 3%   | 3%   | 3%   | 3%   | 26%   | 26%  | 15%  | 24%   |
| Yellow Time (s)         | 3.5    |       |       | 3.5    |       |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5   | 3.5  | 3.5  | 3.5   |
| All-Red Time (s)        | 1.0    |       |       | 1.0    |       |      | 0.0  | 0.0  | 0.0  | 0.0  | 3.0   | 1.0  | 1.0  | 2.5   |
| Lost Time Adjust (s)    | 0.0    |       |       | 0.0    |       |      |      |      |      |      |       |      |      |       |
| Total Lost Time (s)     | 4.5    |       |       | 4.5    |       |      |      |      |      |      |       |      |      |       |
| Lead/Lag                |        |       |       | Lag    |       |      | Lead | Lead | Lead | Lead | Lag   | Lag  |      | Lag   |
| Lead-Lag Optimize?      |        |       |       |        |       |      |      |      |      |      |       |      |      |       |
| Recall Mode             | None   |       |       | None   |       |      | Min  | Min  | Min  | Min  | C-Min | None | None | C-Min |
| Act Effect Green (s)    | 36.0   | 36.0  | 49.0  | 78.5   | 25.5  |      |      |      |      |      |       |      |      |       |
| Actuated g/C Ratio      | 0.30   | 0.30  | 0.41  | 0.65   | 0.21  |      |      |      |      |      |       |      |      |       |
| v/c Ratio               | 0.80   | 1.24  | 0.95  | 0.26   | 0.74  |      |      |      |      |      |       |      |      |       |
| Control Delay           | 65.3   | 152.7 | 17.4  | 1.7    | 49.2  |      |      |      |      |      |       |      |      |       |
| Queue Delay             | 0.0    | 0.5   | 43.9  | 0.9    | 4.1   |      |      |      |      |      |       |      |      |       |
| Total Delay             | 65.3   | 153.2 | 61.4  | 2.7    | 53.3  |      |      |      |      |      |       |      |      |       |
| LOS                     | E      | F     | E     | A      | D     |      |      |      |      |      |       |      |      |       |
| Approach Delay          |        | 134.2 | 44.5  |        | 53.3  |      |      |      |      |      |       |      |      |       |
| Approach LOS            |        | F     | D     |        | D     |      |      |      |      |      |       |      |      |       |
| Queue Length 50th (ft)  | 109    | ~518  | 266   | 20     | 197   |      |      |      |      |      |       |      |      |       |
| Queue Length 95th (ft)  | m#163  | #735  | m191  | m15    | 260   |      |      |      |      |      |       |      |      |       |
| Internal Link Dist (ft) |        | 256   | 105   |        | 358   |      |      |      |      |      |       |      |      |       |
| Turn Bay Length (ft)    | 200    |       |       |        | 100   |      |      |      |      |      |       |      |      |       |
| Base Capacity (vph)     | 238    | 558   | 753   | 1127   | 737   |      |      |      |      |      |       |      |      |       |
| Starvation Cap Reductn  | 0      | 26    | 185   | 582    | 0     |      |      |      |      |      |       |      |      |       |
| Spillback Cap Reductn   | 0      | 35    | 88    | 0      | 119   |      |      |      |      |      |       |      |      |       |
| Storage Cap Reductn     | 0      | 0     | 0     | 0      | 0     |      |      |      |      |      |       |      |      |       |
| Reduced v/c Ratio       | 0.80   | 1.32  | 1.26  | 0.53   | 0.89  |      |      |      |      |      |       |      |      |       |

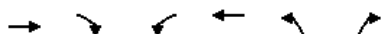
Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.30  
 Intersection Signal Delay: 78.9  
 Intersection LOS: E  
 Intersection Capacity Utilization 72.4%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Washington Street & Cherry Street





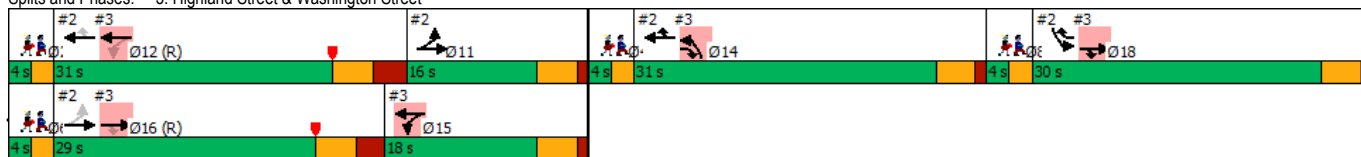


| Lane Group              | EBT   | EBR    | WBL    | WBT   | NBL   | NBR  | Ø2   | Ø4   | Ø6   | Ø8   | Ø11  | Ø12   | Ø16   | Ø18  |
|-------------------------|-------|--------|--------|-------|-------|------|------|------|------|------|------|-------|-------|------|
| Lane Configurations     | ↑↑    | ↑      | ↓      | ↑     | ↓     | ↓    |      |      |      |      |      |       |       |      |
| Traffic Volume (vph)    | 805   | 230    | 110    | 660   | 265   | 45   |      |      |      |      |      |       |       |      |
| Future Volume (vph)     | 805   | 230    | 110    | 660   | 265   | 45   |      |      |      |      |      |       |       |      |
| Ideal Flow (vphpl)      | 1900  | 1900   | 1900   | 1900  | 1900  | 1900 |      |      |      |      |      |       |       |      |
| Storage Length (ft)     |       | 85     | 0      |       | 0     | 0    |      |      |      |      |      |       |       |      |
| Storage Lanes           |       | 1      | 1      |       | 1     | 0    |      |      |      |      |      |       |       |      |
| Taper Length (ft)       |       |        | 25     |       | 25    |      |      |      |      |      |      |       |       |      |
| Satd. Flow (prot)       | 3539  | 1615   | 1787   | 1845  | 1749  | 0    |      |      |      |      |      |       |       |      |
| Flt Permitted           |       |        | 0.163  |       | 0.959 |      |      |      |      |      |      |       |       |      |
| Satd. Flow (perm)       | 3539  | 1511   | 307    | 1845  | 1749  | 0    |      |      |      |      |      |       |       |      |
| Right Turn on Red       |       | Yes    |        |       |       | Yes  |      |      |      |      |      |       |       |      |
| Satd. Flow (RTOR)       |       | 197    |        |       | 7     |      |      |      |      |      |      |       |       |      |
| Link Speed (mph)        | 30    |        |        | 30    | 30    |      |      |      |      |      |      |       |       |      |
| Link Distance (ft)      | 185   |        |        | 301   | 145   |      |      |      |      |      |      |       |       |      |
| Travel Time (s)         | 4.2   |        |        | 6.8   | 3.3   |      |      |      |      |      |      |       |       |      |
| Confl. Peds. (#/hr)     |       | 11     |        |       |       | 6    |      |      |      |      |      |       |       |      |
| Peak Hour Factor        | 0.92  | 0.92   | 0.92   | 0.92  | 0.92  | 0.92 |      |      |      |      |      |       |       |      |
| Heavy Vehicles (%)      | 2%    | 0%     | 1%     | 3%    | 2%    | 0%   |      |      |      |      |      |       |       |      |
| Shared Lane Traffic (%) |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Lane Group Flow (vph)   | 875   | 250    | 120    | 717   | 337   | 0    |      |      |      |      |      |       |       |      |
| Turn Type               | NA    | custom | custom | NA    | Prot  |      |      |      |      |      |      |       |       |      |
| Protected Phases        | 16 18 | 14 18  | 15     | 12 15 | 14    |      | 2    | 4    | 6    | 8    | 11   | 12    | 16    | 18   |
| Permitted Phases        |       | 16     | 12     |       |       |      |      |      |      |      |      |       |       |      |
| Detector Phase          | 16 18 | 14 18  | 15     | 12 15 | 14    |      |      |      |      |      |      |       |       |      |
| Switch Phase            |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Minimum Initial (s)     |       |        | 8.0    |       | 8.0   |      | 2.0  | 2.0  | 2.0  | 2.0  | 8.0  | 8.0   | 8.0   | 8.0  |
| Minimum Split (s)       |       |        | 12.5   |       | 19.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 12.5 | 15.0  | 16.5  | 20.0 |
| Total Split (s)         |       |        | 18.0   |       | 31.0  |      | 4.0  | 4.0  | 4.0  | 4.0  | 16.0 | 31.0  | 29.0  | 30.0 |
| Total Split (%)         |       |        | 15.0%  |       | 25.8% |      | 3%   | 3%   | 3%   | 3%   | 13%  | 26%   | 24%   | 25%  |
| Yellow Time (s)         |       |        | 3.5    |       | 3.5   |      | 2.0  | 2.0  | 2.0  | 2.0  | 3.5  | 3.5   | 3.5   | 3.5  |
| All-Red Time (s)        |       |        | 1.0    |       | 1.0   |      | 0.0  | 0.0  | 0.0  | 0.0  | 1.0  | 3.0   | 2.5   | 1.0  |
| Lost Time Adjust (s)    |       |        | 0.0    |       | 0.0   |      |      |      |      |      |      |       |       |      |
| Total Lost Time (s)     |       |        | 4.5    |       | 4.5   |      |      |      |      |      |      |       |       |      |
| Lead/Lag                |       |        |        |       | Lag   |      | Lead | Lead | Lead | Lead |      | Lag   | Lag   | Lag  |
| Lead-Lag Optimize?      |       |        |        |       |       |      |      |      |      |      |      |       |       |      |
| Recall Mode             |       |        | None   |       | None  |      | Min  | Min  | Min  | Min  | None | C-Min | C-Min | None |
| Act Effct Green (s)     | 47.0  | 76.5   | 40.0   | 36.0  | 26.5  |      |      |      |      |      |      |       |       |      |
| Actuated g/C Ratio      | 0.39  | 0.64   | 0.33   | 0.30  | 0.22  |      |      |      |      |      |      |       |       |      |
| v/c Ratio               | 0.63  | 0.23   | 0.45   | 1.30  | 0.86  |      |      |      |      |      |      |       |       |      |
| Control Delay           | 17.2  | 1.8    | 46.3   | 177.7 | 66.1  |      |      |      |      |      |      |       |       |      |
| Queue Delay             | 6.7   | 0.7    | 0.0    | 1.1   | 7.6   |      |      |      |      |      |      |       |       |      |
| Total Delay             | 23.9  | 2.6    | 46.3   | 178.9 | 73.8  |      |      |      |      |      |      |       |       |      |
| LOS                     | C     | A      | D      | F     | E     |      |      |      |      |      |      |       |       |      |
| Approach Delay          | 19.2  |        |        | 159.9 | 73.8  |      |      |      |      |      |      |       |       |      |
| Approach LOS            | B     |        |        | F     | E     |      |      |      |      |      |      |       |       |      |
| Queue Length 50th (ft)  | 116   | 16     | 64     | ~582  | 248   |      |      |      |      |      |      |       |       |      |
| Queue Length 95th (ft)  | m110  | m17    | m90    | #800  | #410  |      |      |      |      |      |      |       |       |      |
| Internal Link Dist (ft) | 105   |        |        | 221   | 65    |      |      |      |      |      |      |       |       |      |
| Turn Bay Length (ft)    |       | 85     |        |       |       |      |      |      |      |      |      |       |       |      |
| Base Capacity (vph)     | 1386  | 1079   | 268    | 553   | 391   |      |      |      |      |      |      |       |       |      |
| Starvation Cap Reductn  | 457   | 546    | 0      | 30    | 0     |      |      |      |      |      |      |       |       |      |
| Spillback Cap Reductn   | 375   | 0      | 0      | 73    | 33    |      |      |      |      |      |      |       |       |      |
| Storage Cap Reductn     | 0     | 0      | 0      | 0     | 0     |      |      |      |      |      |      |       |       |      |
| Reduced v/c Ratio       | 0.94  | 0.47   | 0.45   | 1.49  | 0.94  |      |      |      |      |      |      |       |       |      |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 12:WBT and 16:EBTL, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.30  
 Intersection Signal Delay: 78.4  
 Intersection LOS: E  
 Intersection Capacity Utilization 61.4%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Highland Street & Washington Street



4: Washington Street & Waltham Street & Watertown Street

Timing Plan: PM Peak

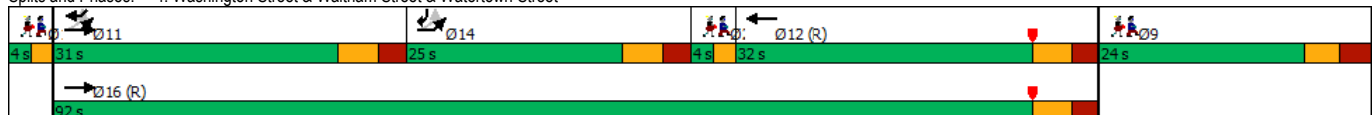


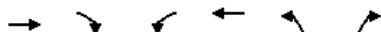
| Lane Group              | EBL2   | EBL   | EBT   | WBT   | WBR  | WBR2  | SBL  | SBR   | SWL  | SWR   | SWR2 | Ø1   | Ø2  | Ø9   | Ø16   |
|-------------------------|--------|-------|-------|-------|------|-------|------|-------|------|-------|------|------|-----|------|-------|
| Lane Configurations     |        | ↖     | ↗     | ↕     |      |       |      | ↕     |      | ↖     | ↗    |      |     |      |       |
| Traffic Volume (vph)    | 5      | 360   | 485   | 300   | 220  | 5     | 0    | 160   | 0    | 310   | 45   |      |     |      |       |
| Future Volume (vph)     | 5      | 360   | 485   | 300   | 220  | 5     | 0    | 160   | 0    | 310   | 45   |      |     |      |       |
| Ideal Flow (vphpl)      | 1900   | 1900  | 1900  | 1900  | 1900 | 1900  | 1900 | 1900  | 1900 | 1900  | 1900 |      |     |      |       |
| Satd. Flow (prot)       | 0      | 1770  | 1863  | 3041  | 0    | 0     | 0    | 1627  | 0    | 1615  | 0    |      |     |      |       |
| Flt Permitted           | 0.995  |       |       |       |      |       |      |       |      |       |      |      |     |      |       |
| Satd. Flow (perm)       | 0      | 1854  | 1863  | 3041  | 0    | 0     | 0    | 1627  | 0    | 1615  | 0    |      |     |      |       |
| Right Turn on Red       |        |       |       |       |      | Yes   |      | Yes   |      | No    |      |      |     |      |       |
| Satd. Flow (RTOR)       |        |       |       |       |      | 1     |      | 414   |      |       |      |      |     |      |       |
| Link Speed (mph)        |        |       |       | 30    |      | 30    |      | 30    |      |       |      |      |     |      |       |
| Link Distance (ft)      |        |       |       | 301   |      | 274   |      | 478   |      | 461   |      |      |     |      |       |
| Travel Time (s)         |        |       |       | 6.8   |      | 6.2   |      | 10.9  |      | 10.5  |      |      |     |      |       |
| Confl. Peds. (#/hr)     |        |       |       |       |      | 17    |      |       |      |       |      |      | 25  |      |       |
| Confl. Bikes (#/hr)     |        |       |       |       |      | 1     |      |       |      |       |      |      | 3   |      |       |
| Peak Hour Factor        | 0.92   | 0.92  | 0.92  | 0.92  | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 |      |     |      |       |
| Heavy Vehicles (%)      | 0%     | 2%    | 2%    | 4%    | 1%   | 0%    | 0%   | 1%    | 0%   | 2%    | 0%   |      |     |      |       |
| Shared Lane Traffic (%) |        |       |       |       |      |       |      |       |      |       |      |      |     |      |       |
| Lane Group Flow (vph)   | 0      | 396   | 527   | 570   | 0    | 0     | 0    | 174   | 0    | 386   | 0    |      |     |      |       |
| Turn Type               | custom | Prot  | NA    | NA    |      |       |      | Prot  | Over |       |      |      |     |      |       |
| Protected Phases        | 11 14  |       | 11 16 | 12    |      |       |      | 14    | 11   |       |      |      |     |      |       |
| Permitted Phases        | 11 14  |       |       |       |      |       |      |       |      |       |      | 1    | 2   | 9    | 16    |
| Detector Phase          | 11 14  | 11 14 | 11 16 | 12    |      |       |      | 14    | 11   |       |      |      |     |      |       |
| Switch Phase            |        |       |       |       |      |       |      |       |      |       |      |      |     |      |       |
| Minimum Initial (s)     |        |       |       | 6.0   |      |       |      | 6.0   |      | 6.0   |      | 2.0  | 2.0 | 5.0  | 6.0   |
| Minimum Split (s)       |        |       |       | 12.5  |      |       |      | 12.0  |      | 15.5  |      | 4.0  | 4.0 | 23.0 | 12.0  |
| Total Split (s)         |        |       |       | 32.0  |      |       |      | 25.0  |      | 31.0  |      | 4.0  | 4.0 | 24.0 | 92.0  |
| Total Split (%)         |        |       |       | 26.7% |      |       |      | 20.8% |      | 25.8% |      | 3%   | 3%  | 20%  | 77%   |
| Yellow Time (s)         |        |       |       | 3.5   |      |       |      | 3.5   |      | 3.5   |      | 2.0  | 2.0 | 3.0  | 3.5   |
| All-Red Time (s)        |        |       |       | 2.5   |      |       |      | 2.5   |      | 2.5   |      | 0.0  | 0.0 | 3.0  | 2.5   |
| Lost Time Adjust (s)    |        |       |       | 0.0   |      |       |      | 0.0   |      | 0.0   |      |      |     |      |       |
| Total Lost Time (s)     |        |       |       | 6.0   |      |       |      | 6.0   |      | 6.0   |      |      |     |      |       |
| Lead/Lag                |        |       |       | Lag   |      |       |      | Lag   |      | Lead  |      | Lead |     |      |       |
| Lead-Lag Optimize?      |        |       |       |       |      |       |      |       |      |       |      |      |     |      |       |
| Recall Mode             |        |       |       | C-Min |      |       |      | None  |      | None  |      | Min  | Min | None | C-Min |
| Act Effct Green (s)     | 53.8   |       | 98.3  | 31.0  |      |       |      | 9.1   |      | 38.7  |      |      |     |      |       |
| Actuated g/C Ratio      | 0.45   |       | 0.82  | 0.26  |      |       |      | 0.08  |      | 0.32  |      |      |     |      |       |
| v/c Ratio               | 0.48   |       | 0.35  | 0.72  |      |       |      | 0.34  |      | 0.74  |      |      |     |      |       |
| Control Delay           | 51.6   |       | 5.7   | 49.3  |      |       |      | 1.9   |      | 48.8  |      |      |     |      |       |
| Queue Delay             | 13.8   |       | 1.4   | 53.3  |      |       |      | 0.9   |      | 17.0  |      |      |     |      |       |
| Total Delay             | 65.4   |       | 7.0   | 102.7 |      |       |      | 2.7   |      | 65.8  |      |      |     |      |       |
| LOS                     | E      |       | A     | F     |      |       |      | A     |      | E     |      |      |     |      |       |
| Approach Delay          |        |       |       | 32.1  |      | 102.7 |      | 2.7   |      | 65.8  |      |      |     |      |       |
| Approach LOS            |        |       |       | C     |      | F     |      | A     |      | E     |      |      |     |      |       |
| Queue Length 50th (ft)  | 313    |       | 99    | 218   |      |       |      | 0     |      | 241   |      |      |     |      |       |
| Queue Length 95th (ft)  | m376   |       | m123  | #323  |      |       |      | 0     |      | #546  |      |      |     |      |       |
| Internal Link Dist (ft) |        |       |       | 221   |      | 194   |      | 398   |      | 381   |      |      |     |      |       |
| Turn Bay Length (ft)    |        |       |       |       |      |       |      |       |      |       |      |      |     |      |       |
| Base Capacity (vph)     | 983    |       | 1526  | 787   |      |       |      | 606   |      | 520   |      |      |     |      |       |
| Starvation Cap Reductn  | 564    |       | 762   | 234   |      |       |      | 0     |      | 0     |      |      |     |      |       |
| Spillback Cap Reductn   | 0      |       | 96    | 308   |      |       |      | 229   |      | 125   |      |      |     |      |       |
| Storage Cap Reductn     | 0      |       | 0     | 0     |      |       |      | 0     |      | 0     |      |      |     |      |       |
| Reduced v/c Ratio       | 0.95   |       | 0.69  | 1.19  |      |       |      | 0.46  |      | 0.98  |      |      |     |      |       |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 113 (94%), Referenced to phase 12:WBT and 16:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 55.5  
 Intersection LOS: E  
 Intersection Capacity Utilization 73.4%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Washington Street & Waltham Street & Watertown Street



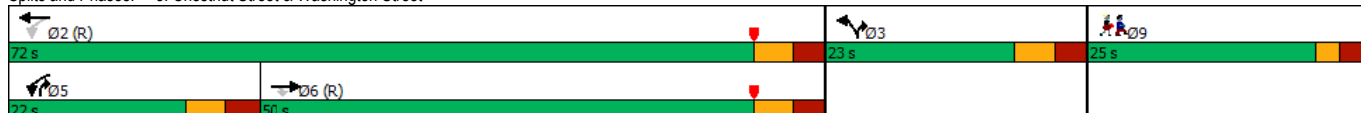


| Lane Group              | EBT   | EBR   | WBL   | WBT   | NBL   | NBR   | Ø9   |
|-------------------------|-------|-------|-------|-------|-------|-------|------|
| Lane Configurations     | ↑     | ↑     | ↑     | ↑     | ↑     | ↑     |      |
| Traffic Volume (vph)    | 445   | 40    | 255   | 415   | 110   | 195   |      |
| Future Volume (vph)     | 445   | 40    | 255   | 415   | 110   | 195   |      |
| Ideal Flow (vphpl)      | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |      |
| Storage Length (ft)     |       | 35    | 0     |       | 0     | 150   |      |
| Storage Lanes           |       | 1     | 1     |       | 1     | 1     |      |
| Taper Length (ft)       |       |       | 25    |       | 25    |       |      |
| Satd. Flow (prot)       | 1863  | 1615  | 1805  | 1845  | 1787  | 1599  |      |
| Flt Permitted           |       |       | 0.340 |       | 0.950 |       |      |
| Satd. Flow (perm)       | 1863  | 1615  | 646   | 1845  | 1787  | 1599  |      |
| Right Turn on Red       |       | Yes   |       |       |       | Yes   |      |
| Satd. Flow (RTOR)       |       | 10    |       |       |       | 212   |      |
| Link Speed (mph)        | 30    |       |       | 30    | 30    |       |      |
| Link Distance (ft)      | 274   |       |       | 584   | 336   |       |      |
| Travel Time (s)         | 6.2   |       |       | 13.3  | 7.6   |       |      |
| Peak Hour Factor        | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |      |
| Heavy Vehicles (%)      | 2%    | 0%    | 0%    | 3%    | 1%    | 1%    |      |
| Shared Lane Traffic (%) |       |       |       |       |       |       |      |
| Lane Group Flow (vph)   | 484   | 43    | 277   | 451   | 120   | 212   |      |
| Turn Type               | NA    | Perm  | pm+pt | NA    | Prot  | pt+ov |      |
| Protected Phases        | 6     |       | 5     | 2     | 3     | 3.5   | 9    |
| Permitted Phases        |       | 6     | 2     |       |       |       |      |
| Detector Phase          | 6     | 6     | 5     | 2     | 3     | 3.5   |      |
| Switch Phase            |       |       |       |       |       |       |      |
| Minimum Initial (s)     | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   |       | 5.0  |
| Minimum Split (s)       | 12.5  | 12.5  | 12.5  | 12.5  | 12.5  |       | 24.0 |
| Total Split (s)         | 50.0  | 50.0  | 22.0  | 72.0  | 23.0  |       | 25.0 |
| Total Split (%)         | 41.7% | 41.7% | 18.3% | 60.0% | 19.2% |       | 21%  |
| Yellow Time (s)         | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   |       | 2.0  |
| All-Red Time (s)        | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   |       | 3.0  |
| Lost Time Adjust (s)    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |       |      |
| Total Lost Time (s)     | 6.5   | 6.5   | 6.5   | 6.5   | 6.5   |       |      |
| Lead/Lag                | Lag   | Lag   | Lead  |       |       |       |      |
| Lead-Lag Optimize?      |       |       |       |       |       |       |      |
| Recall Mode             | C-Min | C-Min | None  | C-Min | None  |       | None |
| Act Effct Green (s)     | 65.9  | 65.9  | 84.4  | 84.4  | 13.0  |       | 28.9 |
| Actuated g/C Ratio      | 0.55  | 0.55  | 0.70  | 0.70  | 0.11  |       | 0.24 |
| v/c Ratio               | 0.47  | 0.05  | 0.49  | 0.35  | 0.62  |       | 0.39 |
| Control Delay           | 14.8  | 8.7   | 11.9  | 10.6  | 64.9  |       | 4.6  |
| Queue Delay             | 1.5   | 0.0   | 0.0   | 0.3   | 0.0   |       | 0.0  |
| Total Delay             | 16.3  | 8.7   | 11.9  | 10.9  | 64.9  |       | 4.6  |
| LOS                     | B     | A     | B     | B     | E     |       | A    |
| Approach Delay          | 15.7  |       |       | 11.3  | 26.4  |       |      |
| Approach LOS            | B     |       |       | B     | C     |       |      |
| Queue Length 50th (ft)  | 130   | 2     | 46    | 84    | 90    |       | 0    |
| Queue Length 95th (ft)  | 470   | 18    | 161   | 278   | 150   |       | 36   |
| Internal Link Dist (ft) | 194   |       |       | 504   | 256   |       |      |
| Turn Bay Length (ft)    |       | 35    |       |       |       |       | 150  |
| Base Capacity (vph)     | 1023  | 891   | 609   | 1298  | 245   |       | 583  |
| Starvation Cap Reductn  | 343   | 0     | 0     | 0     | 0     |       | 0    |
| Spillback Cap Reductn   | 0     | 0     | 0     | 355   | 0     |       | 0    |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0     |       | 0    |
| Reduced v/c Ratio       | 0.71  | 0.05  | 0.45  | 0.48  | 0.49  |       | 0.36 |

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 7 (6%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 15.9  
 Intersection Capacity Utilization 59.9%  
 Intersection LOS: B  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 5: Chestnut Street & Washington Street



| Intersection             |        |        |        |        |        |        |
|--------------------------|--------|--------|--------|--------|--------|--------|
| Int Delay, s/veh         | 0.3    |        |        |        |        |        |
| Movement                 | WBL    | WBR    | NBT    | NBR    | SBL    | SBT    |
| Lane Configurations      | ↔      |        | ↑      |        |        | ↑      |
| Traffic Vol, veh/h       | 5      | 10     | 300    | 0      | 0      | 340    |
| Future Vol, veh/h        | 5      | 10     | 300    | 0      | 0      | 340    |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 3      | 3      | 0      |
| Sign Control             | Stop   | Stop   | Free   | Free   | Free   | Free   |
| RT Channelized           | -      | None   | -      | None   | -      | None   |
| Storage Length           | 0      | -      | -      | -      | -      | -      |
| Veh in Median Storage, # | 0      | -      | 0      | -      | -      | 0      |
| Grade, %                 | 0      | -      | 0      | -      | -      | 0      |
| Peak Hour Factor         | 92     | 92     | 92     | 92     | 92     | 92     |
| Heavy Vehicles, %        | 0      | 0      | 0      | 0      | 0      | 1      |
| Mvmt Flow                | 5      | 11     | 326    | 0      | 0      | 370    |
| Major/Minor              | Minor1 | Major1 | Major2 | Major2 | Major2 | Major2 |
| Conflicting Flow All     | 696    | 326    | 0      | -      | -      | -      |
| Stage 1                  | 326    | -      | -      | -      | -      | -      |
| Stage 2                  | 370    | -      | -      | -      | -      | -      |
| Critical Hdwy            | 6.4    | 6.2    | -      | -      | -      | -      |
| Critical Hdwy Stg 1      | 5.4    | -      | -      | -      | -      | -      |
| Critical Hdwy Stg 2      | 5.4    | -      | -      | -      | -      | -      |
| Follow-up Hdwy           | 3.5    | 3.3    | -      | -      | -      | -      |
| Pot Cap-1 Maneuver       | 411    | 720    | -      | 0      | 0      | -      |
| Stage 1                  | 736    | -      | -      | 0      | 0      | -      |
| Stage 2                  | 703    | -      | -      | 0      | 0      | -      |
| Platoon blocked, %       |        |        | -      | -      | -      | -      |
| Mov Cap-1 Maneuver       | 411    | 720    | -      | -      | -      | -      |
| Mov Cap-2 Maneuver       | 411    | -      | -      | -      | -      | -      |
| Stage 1                  | 736    | -      | -      | -      | -      | -      |
| Stage 2                  | 703    | -      | -      | -      | -      | -      |
| Approach                 | WB     | NB     | SB     | SB     | SB     | SB     |
| HCM Control Delay, s     | 11.4   | 0      | 0      |        |        |        |
| HCM LOS                  | B      |        |        |        |        |        |
| Minor Lane/Major Mvmt    | NBT    | WBLn1  | SBT    | SBT    | SBT    | SBT    |
| Capacity (veh/h)         | -      | 576    | -      |        |        |        |
| HCM Lane V/C Ratio       | -      | 0.028  | -      |        |        |        |
| HCM Control Delay (s)    | -      | 11.4   | -      |        |        |        |
| HCM Lane LOS             | -      | B      | -      |        |        |        |
| HCM 95th %tile Q(veh)    | -      | 0.1    | -      |        |        |        |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.1  |      |      |      |      |      |
| Movement                 | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Configurations      | ↔    |      | ↔    |      | ↔    |      |
| Traffic Vol, veh/h       | 0    | 1    | 5    | 300  | 340  | 5    |
| Future Vol, veh/h        | 0    | 1    | 5    | 300  | 340  | 5    |
| Conflicting Peds, #/hr   | 0    | 0    | 21   | 0    | 0    | 21   |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 0    | 0    | 0    | 0    | 1    | 0    |
| Mvmt Flow                | 0    | 1    | 5    | 326  | 370  | 5    |

| Major/Minor          | Minor2 | Major1 | Major2 |   |   |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | 730    | 394    | 396    | 0 | 0 |
| Stage 1              | 394    | -      | -      | - | - |
| Stage 2              | 336    | -      | -      | - | - |
| Critical Hdwy        | 6.4    | 6.2    | 4.1    | - | - |
| Critical Hdwy Stg 1  | 5.4    | -      | -      | - | - |
| Critical Hdwy Stg 2  | 5.4    | -      | -      | - | - |
| Follow-up Hdwy       | 3.5    | 3.3    | 2.2    | - | - |
| Pot Cap-1 Maneuver   | 392    | 659    | 1174   | - | - |
| Stage 1              | 686    | -      | -      | - | - |
| Stage 2              | 728    | -      | -      | - | - |
| Platoon blocked, %   |        |        |        | - | - |
| Mov Cap-1 Maneuver   | 375    | 646    | 1151   | - | - |
| Mov Cap-2 Maneuver   | 375    | -      | -      | - | - |
| Stage 1              | 669    | -      | -      | - | - |
| Stage 2              | 713    | -      | -      | - | - |

| Approach             | EB   | NB  | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 10.6 | 0.1 | 0  |
| HCM LOS              | B    |     |    |

| Minor Lane/Major Mvmt | NBL   | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h)      | 1151  | -   | 646   | -   | -   |
| HCM Lane V/C Ratio    | 0.005 | -   | 0.002 | -   | -   |
| HCM Control Delay (s) | 8.1   | 0   | 10.6  | -   | -   |
| HCM Lane LOS          | A     | A   | B     | -   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | 0     | -   | -   |

| Intersection             |        |      |      |        |       |       |        |      |      |        |      |      |
|--------------------------|--------|------|------|--------|-------|-------|--------|------|------|--------|------|------|
| Int Delay, s/veh         | 1.8    |      |      |        |       |       |        |      |      |        |      |      |
| Movement                 | EBL    | EBT  | EBR  | WBL    | WBT   | WBR   | NBL    | NBT  | NBR  | SBL    | SBT  | SBR  |
| Lane Configurations      |        | ↕    |      |        | ↕     |       |        | ↕    |      |        | ↕    |      |
| Traffic Vol, veh/h       | 10     | 1    | 5    | 0      | 1     | 65    | 0      | 230  | 35   | 40     | 300  | 0    |
| Future Vol, veh/h        | 10     | 1    | 5    | 0      | 1     | 65    | 0      | 230  | 35   | 40     | 300  | 0    |
| Conflicting Peds, #/hr   | 0      | 0    | 1    | 0      | 0     | 1     | 3      | 0    | 3    | 3      | 0    | 3    |
| Sign Control             | Stop   | Stop | Stop | Stop   | Stop  | Stop  | Free   | Free | Free | Free   | Free | Free |
| RT Channelized           | -      | -    | None | -      | -     | None  | -      | -    | None | -      | -    | None |
| Storage Length           | -      | -    | -    | -      | -     | -     | -      | -    | -    | -      | -    | -    |
| Veh in Median Storage, # | -      | 0    | -    | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Grade, %                 | -      | 0    | -    | -      | 0     | -     | -      | 0    | -    | -      | 0    | -    |
| Peak Hour Factor         | 92     | 92   | 92   | 92     | 92    | 92    | 92     | 92   | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %        | 0      | 0    | 0    | 0      | 0     | 0     | 0      | 0    | 0    | 0      | 1    | 0    |
| Mvmt Flow                | 11     | 1    | 5    | 0      | 1     | 71    | 0      | 250  | 38   | 43     | 326  | 0    |
| Major/Minor              | Minor2 |      |      | Minor1 |       |       | Major1 |      |      | Major2 |      |      |
| Conflicting Flow All     | 721    | 706  | 330  | -      | 687   | 273   | 329    | 0    | 0    | 291    | 0    | 0    |
| Stage 1                  | 415    | 415  | -    | -      | 272   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 306    | 291  | -    | -      | 415   | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy            | 7.1    | 6.5  | 6.2  | -      | 6.5   | 6.2   | 4.1    | -    | -    | 4.1    | -    | -    |
| Critical Hdwy Stg 1      | 6.1    | 5.5  | -    | -      | 5.5   | -     | -      | -    | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | 6.1    | 5.5  | -    | -      | 5.5   | -     | -      | -    | -    | -      | -    | -    |
| Follow-up Hdwy           | 3.5    | 4    | 3.3  | -      | 4     | 3.3   | 2.2    | -    | -    | 2.2    | -    | -    |
| Pot Cap-1 Maneuver       | 345    | 363  | 716  | 0      | 372   | 771   | 1242   | -    | -    | 1282   | -    | -    |
| Stage 1                  | 619    | 596  | -    | 0      | 688   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 708    | 675  | -    | 0      | 596   | -     | -      | -    | -    | -      | -    | -    |
| Platoon blocked, %       | -      | -    | -    | -      | -     | -     | -      | -    | -    | -      | -    | -    |
| Mov Cap-1 Maneuver       | 302    | 346  | 713  | -      | 355   | 768   | 1238   | -    | -    | 1278   | -    | -    |
| Mov Cap-2 Maneuver       | 302    | 346  | -    | -      | 355   | -     | -      | -    | -    | -      | -    | -    |
| Stage 1                  | 617    | 570  | -    | -      | 686   | -     | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 641    | 673  | -    | -      | 570   | -     | -      | -    | -    | -      | -    | -    |
| Approach                 | EB     |      |      | WB     |       |       | NB     |      |      | SB     |      |      |
| HCM Control Delay, s     | 15.2   |      |      | 10.3   |       |       | 0      |      |      | 0.9    |      |      |
| HCM LOS                  | C      |      |      | B      |       |       |        |      |      |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT  | NBR  | EBLn1  | WBLn1 | SBL   | SBT    | SBR  |      |        |      |      |
| Capacity (veh/h)         | 1238   | -    | -    | 372    | 755   | 1278  | -      | -    |      |        |      |      |
| HCM Lane V/C Ratio       | -      | -    | -    | 0.047  | 0.095 | 0.034 | -      | -    |      |        |      |      |
| HCM Control Delay (s)    | 0      | -    | -    | 15.2   | 10.3  | 7.9   | 0      | -    |      |        |      |      |
| HCM Lane LOS             | A      | -    | -    | C      | B     | A     | A      | -    |      |        |      |      |
| HCM 95th %tile Q(veh)    | 0      | -    | -    | 0.1    | 0.3   | 0.1   | -      | -    |      |        |      |      |

| Intersection             |        |        |        |      |       |      |
|--------------------------|--------|--------|--------|------|-------|------|
| Int Delay, s/veh         | 1.1    |        |        |      |       |      |
| Movement                 | EBL    | EBT    | WBT    | WBR  | SBL   | SBR  |
| Lane Configurations      |        | ↕      | ↕      |      | ↕     |      |
| Traffic Vol, veh/h       | 15     | 60     | 60     | 10   | 1     | 5    |
| Future Vol, veh/h        | 15     | 60     | 60     | 10   | 1     | 5    |
| Conflicting Peds, #/hr   | 1      | 0      | 0      | 1    | 0     | 0    |
| Sign Control             | Free   | Free   | Free   | Free | Stop  | Stop |
| RT Channelized           | -      | None   | -      | None | -     | None |
| Storage Length           | -      | -      | -      | -    | 0     | -    |
| Veh in Median Storage, # | -      | 0      | 0      | -    | 0     | -    |
| Grade, %                 | -      | 0      | 0      | -    | 0     | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92    | 92   |
| Heavy Vehicles, %        | 0      | 0      | 0      | 0    | 0     | 0    |
| Mvmt Flow                | 16     | 65     | 65     | 11   | 1     | 5    |
| Major/Minor              | Major1 | Major2 | Minor2 |      |       |      |
| Conflicting Flow All     | 77     | 0      | -      | 0    | 169   | 72   |
| Stage 1                  | -      | -      | -      | -    | 72    | -    |
| Stage 2                  | -      | -      | -      | -    | 97    | -    |
| Critical Hdwy            | 4.1    | -      | -      | -    | 6.4   | 6.2  |
| Critical Hdwy Stg 1      | -      | -      | -      | -    | 5.4   | -    |
| Critical Hdwy Stg 2      | -      | -      | -      | -    | 5.4   | -    |
| Follow-up Hdwy           | 2.2    | -      | -      | -    | 3.5   | 3.3  |
| Pot Cap-1 Maneuver       | 1535   | -      | -      | -    | 826   | 996  |
| Stage 1                  | -      | -      | -      | -    | 956   | -    |
| Stage 2                  | -      | -      | -      | -    | 932   | -    |
| Platoon blocked, %       | -      | -      | -      | -    | -     | -    |
| Mov Cap-1 Maneuver       | 1534   | -      | -      | -    | 815   | 995  |
| Mov Cap-2 Maneuver       | -      | -      | -      | -    | 815   | -    |
| Stage 1                  | -      | -      | -      | -    | 945   | -    |
| Stage 2                  | -      | -      | -      | -    | 931   | -    |
| Approach                 | EB     | WB     |        | SB   |       |      |
| HCM Control Delay, s     | 1.5    | 0      |        | 8.8  |       |      |
| HCM LOS                  |        |        |        | A    |       |      |
| Minor Lane/Major Mvmt    | EBL    | EBT    | WBT    | WBR  | SBLn1 |      |
| Capacity (veh/h)         | 1534   | -      | -      | -    | 960   |      |
| HCM Lane V/C Ratio       | 0.011  | -      | -      | -    | 0.007 |      |
| HCM Control Delay (s)    | 7.4    | 0      | -      | -    | 8.8   |      |
| HCM Lane LOS             | A      | A      | -      | -    | A     |      |
| HCM 95th %tile Q(veh)    | 0      | -      | -      | -    | 0     |      |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.6  |      |      |      |      |      |
| Movement                 | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Configurations      | ↔    |      |      | ↕    |      | ↔    |
| Traffic Vol, veh/h       | 30   | 30   | 35   | 275  | 260  | 35   |
| Future Vol, veh/h        | 30   | 30   | 35   | 275  | 260  | 35   |
| Conflicting Peds, #/hr   | 0    | 3    | 8    | 0    | 0    | 8    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 0    | 0    | 0    | 1    | 0    | 0    |
| Mvmt Flow                | 33   | 33   | 38   | 299  | 283  | 38   |

| Major/Minor          | Minor2 | Major1 | Major2 |   |   |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | 685    | 313    | 329    | 0 | 0 |
| Stage 1              | 310    | -      | -      | - | - |
| Stage 2              | 375    | -      | -      | - | - |
| Critical Hdwy        | 6.4    | 6.2    | 4.1    | - | - |
| Critical Hdwy Stg 1  | 5.4    | -      | -      | - | - |
| Critical Hdwy Stg 2  | 5.4    | -      | -      | - | - |
| Follow-up Hdwy       | 3.5    | 3.3    | 2.2    | - | - |
| Pot Cap-1 Maneuver   | 417    | 732    | 1242   | - | - |
| Stage 1              | 748    | -      | -      | - | - |
| Stage 2              | 699    | -      | -      | - | - |
| Platoon blocked, %   |        |        |        | - | - |
| Mov Cap-1 Maneuver   | 395    | 724    | 1233   | - | - |
| Mov Cap-2 Maneuver   | 395    | -      | -      | - | - |
| Stage 1              | 714    | -      | -      | - | - |
| Stage 2              | 693    | -      | -      | - | - |

| Approach             | EB   | NB  | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 13.1 | 0.9 | 0  |
| HCM LOS              | B    |     |    |

| Minor Lane/Major Mvmt | NBL   | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h)      | 1233  | -   | 511   | -   | -   |
| HCM Lane V/C Ratio    | 0.031 | -   | 0.128 | -   | -   |
| HCM Control Delay (s) | 8     | 0   | 13.1  | -   | -   |
| HCM Lane LOS          | A     | A   | B     | -   | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | 0.4   | -   | -   |



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## Sight Distance

**Stopping Sight Distance and Intersection Sight Distance Calculator [v0.97]**  
**Based on 'A Policy on Geometric Design of Highways and Streets', AASHTO, 2004**

| Section I  |                 |                       |                                   | Section III   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
|--|-----------------|-----------------------|-----------------------------------|---|--|--|--|-------------------|-----|-----------------------|----|-------------------|-----|-----------------------|----|-------------------|-----|-----------------------|----|-------------------|-----|-----------------------|-----|-------------------|-----|-----------------------|----|-------------------|-----|-----------------------|-----|----------|-----|--------------|-----------------------|-----|--|-----|--------------|-----------------------|----|
| <b>Project Information</b>   |                 |                       |                                   | <b>ISD and SSD Calculations</b> (rounded up to the next highest 5 feet) [sources: SSD - AASHTO, pp.110-117; ISD - AASHTO, pp. 650 - 664]  |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Project Number: 15636.00   |                 | Analyst: VHB          |                                   | <p>Cases are described in detail on subsequent pages. In summary...</p> <p>B1: left turn from minor road, from stop control<br/>                     B2: right turn from minor road, from stop control<br/>                     B3: crossing maneuver from minor road, from stop control, assuming left- and right turns are not permitted [otherwise, case B1 or B2 would supercede]</p> <p><b>Desirable Calculated ...</b></p> <table border="1"> <tr> <td>... ISD, case B1:</td> <td>335</td> <td><b>Condition Met?</b></td> <td>No</td> </tr> <tr> <td>... ISD, case B2:</td> <td>290</td> <td><b>Condition Met?</b></td> <td>No</td> </tr> <tr> <td>... ISD, case B3:</td> <td>290</td> <td><b>Condition Met?</b></td> <td>No</td> </tr> </table> <p>[note: if number of lanes crossed exceeds 6, or if grades are steep, consult the manual]</p> <p><b>Minimum Calculated ...</b></p> <table border="1"> <tr> <td>... ISD, case B1:</td> <td>200</td> <td><b>Condition Met?</b></td> <td>Yes</td> </tr> <tr> <td>... ISD, case B2:</td> <td>200</td> <td><b>Condition Met?</b></td> <td>No</td> </tr> <tr> <td>... ISD, case B3:</td> <td>200</td> <td><b>Condition Met?</b></td> <td>Yes</td> </tr> </table> <p>[note: minimum ISD is equal to required SSD]</p> <p><b>Calculated ...</b></p> <table border="1"> <tr> <td>... SSD:</td> <td>200</td> <td>traveling NB</td> <td><b>Condition Met?</b></td> <td>Yes</td> </tr> <tr> <td></td> <td>200</td> <td>traveling SB</td> <td><b>Condition Met?</b></td> <td>No</td> </tr> </table> |  |  |  | ... ISD, case B1: | 335 | <b>Condition Met?</b> | No | ... ISD, case B2: | 290 | <b>Condition Met?</b> | No | ... ISD, case B3: | 290 | <b>Condition Met?</b> | No | ... ISD, case B1: | 200 | <b>Condition Met?</b> | Yes | ... ISD, case B2: | 200 | <b>Condition Met?</b> | No | ... ISD, case B3: | 200 | <b>Condition Met?</b> | Yes | ... SSD: | 200 | traveling NB | <b>Condition Met?</b> | Yes |  | 200 | traveling SB | <b>Condition Met?</b> | No |
| ... ISD, case B1:  | 335             | <b>Condition Met?</b> | No                                |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| ... ISD, case B2:  | 290             | <b>Condition Met?</b> | No                                |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| ... ISD, case B3:  | 290             | <b>Condition Met?</b> | No                                |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| ... ISD, case B1:  | 200             | <b>Condition Met?</b> | Yes                               |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| ... ISD, case B2:  | 200             | <b>Condition Met?</b> | No                                |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| ... ISD, case B3:  | 200             | <b>Condition Met?</b> | Yes                               |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| ... SSD:   | 200             | traveling NB          | <b>Condition Met?</b>             |   |  |  |  | Yes               |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
|  | 200             | traveling SB          | <b>Condition Met?</b>             |   |  |  |  | No                |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| City/Town, State: Newton, MA   |                 | Client:               |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Location: Highland Street at Site Driveway   |                 |                       |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| <b>Street Names and Directions</b>   |                 | <b>Street Notes</b>   |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Major Street name:   | Highland Street | NB/SB                 |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Minor Street name:   | Site Driveway   | EB/WB                 |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Minor Street intersects from the:  | east            |                       |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| The minor street <i>predominantly</i> serves...  | Passenger Cars  |                       |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Sight distance location intersection is...   | Proposed        |                       |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Total number of lanes on Major Street is...  | 2               |                       |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| <b>Grade Information</b> [enter down slope as a negative number]   |                 |                       |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Major Street Approach Grade:   | 0.00%           | NB                    |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
|  | 0.00%           | SB                    |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Minor Street Approach Grade:   | 0.00%           | SB                    |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
|  | 0.00%           | NB                    |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| <b>Major Street Speed Information</b>  |                 |                       |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
|  | <i>Posted</i>   |                       | <i>Observed *</i>                 |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
|  | n/a             | NB                    | 30                                |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
|  | n/a             | SB                    | 30                                |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| * note: off-peak 85th percentile speeds  |                 |                       |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Section II   |                 |                       |                                   | Section IV  |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| <b>ISD and SSD Observations</b>  |                 |                       |                                   | <b>AASHTO Guidance</b>  |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| Instructions on how to observe and measure ISD and SSD are included on subsequent pages.   |                 |                       |                                   | Refer to AASHTO for specific guidance on SSD and ISD if presented with an unusual/atypical case.  |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| <p><b>ISD</b> - Intersection sight distance is the distance that is based on the time required for perception, reaction and completion of the desired critical exiting maneuver [typically, a left turn] once the driver on a minor street approach [or a site drive] decides to execute the maneuver. Calculation for the critical ISD includes the time to [1] turn left, and to clear the near half of the intersection without conflicting with the vehicles approaching from the left; and [2] upon turning left, to accelerate to the operating speed on the roadway without causing approaching vehicles on the main road to unduly reduce their speed. In this context, ISD can be considered as a <i>desirable</i> visibility criterion for the safe operation of an unsignalized intersection.</p> <p><b>SSD</b> - Stopping sight distance is the distance required for a vehicle approaching an intersection from either direction to perceive, react, and come to a complete stop before colliding with the exiting vehicle from a driveway. In this respect, SSD can be considered as the <i>minimum</i> visibility criterion for the safe operation of an unsignalized intersection.</p> |                 |                       |                                   | <p>Adequate ISD is not needed at signalized intersections, assuming traffic signal heads are visible on all approaches. Any object that would obstruct the driver's view should be removed or lowered, if practical. Such objects include buildings, parked cars, highway structures, hedges/vegetation/trees/bushes/unmowed lawn, walls, fences, and terrain.</p> <p>For ISD, an object should be considered an obstruction if it obstructs the vision of a driver whose eye height is 3.5 feet above the roadway surface and the object to be seen is 3.5 feet above the surface of the intersecting road.</p> <p>Where horizontal sight restrictions occur on downgrades, particularly at the ends of long downgrades, it is desirable to provide SSD that exceeds those values indicated above (refer to page 114 of AASHTO).</p>   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| <b>Limiting Factors:</b>   |                 |                       |                                   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| <b>Observed ISD:</b>   | 285             | looking left [south]  | Crest of vertical curve over I-90 |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| (rounded to nearest 5 feet)  | 90              | looking right [north] | Signal at Washington Street       |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| <b>Observed SSD:</b>   | 340             | traveling NB          | Sag of vertical curve over I-90   |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |
| (rounded to nearest 5 feet)  | 90              | traveling SB          | Signal at Wash. St                |   |  |  |  |                   |     |                       |    |                   |     |                       |    |                   |     |                       |    |                   |     |                       |     |                   |     |                       |    |                   |     |                       |     |          |     |              |                       |     |  |     |              |                       |    |

**Stopping Sight Distance and Intersection Sight Distance Calculator [v0.97]**  
**Based on 'A Policy on Geometric Design of Highways and Streets', AASHTO, 2004**

| Section I   | Section III  |                                       |   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
|---|--|---------------------------------------|---|--------------------------|---|-----|---------------------|-----------------------------------|-----------------------------|-----|----------------------|-----------------------------------|--|----------------------|--|--|--|----|--------------|-----------------------------------|-----------------------------|-----|--------------|---------------------|--|
| <b>Project Information</b><br><table style="width:100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <b>Project Number:</b> 15636.00<br/> <b>City/Town, State:</b> Newton, MA<br/> <b>Location:</b> Davis Street at Site driveway                 </td> <td style="width: 50%; border: none;"> <b>Analyst:</b> VHB<br/> <b>Client:</b> </td> </tr> </table>  | <b>Project Number:</b> 15636.00<br><b>City/Town, State:</b> Newton, MA<br><b>Location:</b> Davis Street at Site driveway   | <b>Analyst:</b> VHB<br><b>Client:</b> | <b>ISD and SSD Calculations</b> (rounded up to the next highest 5 feet) [sources: SSD - AASHTO, pp.110-117; ISD - AASHTO, pp. 650 - 664]<br><i>Cases are described in detail on subsequent pages. In summary...</i><br>B1: left turn from minor road, from stop control<br>B2: right turn from minor road, from stop control<br>B3: crossing maneuver from minor road, from stop control, assuming left- and right turns are not permitted [otherwise, case B1 or B2 would supercede] |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
| <b>Project Number:</b> 15636.00<br><b>City/Town, State:</b> Newton, MA<br><b>Location:</b> Davis Street at Site driveway  | <b>Analyst:</b> VHB<br><b>Client:</b>  |                                       |   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
| <b>Street Names and Directions</b><br><table style="width:100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <b>Major Street name:</b> Davis Street    EB/WB<br/> <b>Minor Street name:</b> Site Driveway    NB/SB<br/> <b>Minor Street intersects from the:</b> north                 </td> <td style="width: 50%; border: none;"> <b>Street Notes</b> </td> </tr> </table>   | <b>Major Street name:</b> Davis Street    EB/WB<br><b>Minor Street name:</b> Site Driveway    NB/SB<br><b>Minor Street intersects from the:</b> north  | <b>Street Notes</b>                   |   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
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| <b>Grade Information</b> [enter down slope as a negative number] <table style="width:100%; border: none;"> <tr> <td style="width: 50%; border: none;"><b>Major Street Approach Grade:</b> 0.00%</td> <td style="width: 50%; border: none;">EB</td> </tr> <tr> <td style="border: none;">0.00%</td> <td style="border: none;">WB</td> </tr> <tr> <td style="border: none;"><b>Minor Street Approach Grade:</b> 0.00%</td> <td style="border: none;">NB</td> </tr> <tr> <td style="border: none;">0.00%</td> <td style="border: none;">SB</td> </tr> </table>   | <b>Major Street Approach Grade:</b> 0.00%  | EB                                    | 0.00%   | WB                       | <b>Minor Street Approach Grade:</b> 0.00% | NB  | 0.00%               | SB                                |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
| <b>Major Street Approach Grade:</b> 0.00%   | EB   |                                       |   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
| 0.00%   | WB   |                                       |   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
| <b>Minor Street Approach Grade:</b> 0.00%   | NB   |                                       |   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
| 0.00%   | SB   |                                       |   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
| <b>Major Street Speed Information</b><br><table style="width:100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;"><i>Posted</i></td> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;"><i>Observed *</i></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none; text-align: center;">n/a</td> <td style="border: none;">EB</td> <td style="border: none; text-align: center;">25</td> </tr> <tr> <td style="border: none;"></td> <td style="border: none; text-align: center;">n/a</td> <td style="border: none;">WB</td> <td style="border: none; text-align: center;">25</td> </tr> </table> <p style="text-align: right; font-size: small;">* note: off-peak 85th percentile speeds</p>  |  | <i>Posted</i>                         |   | <i>Observed *</i>        |   | n/a | EB                  | 25                                |                             | n/a | WB                   | 25                                |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
|   | <i>Posted</i>  |                                       | <i>Observed *</i>   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
|   | n/a  | EB                                    | 25  |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
|   | n/a  | WB                                    | 25  |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
| <b>Section II</b><br><b>ISD and SSD Observations</b><br><i>Instructions on how to observe and measure ISD and SSD are included on subsequent pages.</i><br><br><b>ISD</b> - Intersection sight distance is the distance that is based on the time required for perception, reaction and completion of the desired critical exiting maneuver [typically, a left turn] once the driver on a minor street approach [or a site drive] decides to execute the maneuver. Calculation for the critical ISD includes the time to [1] turn left, and to clear the near half of the intersection without conflicting with the vehicles approaching from the left; and [2] upon turning left, to accelerate to the operating speed on the roadway without causing approaching vehicles on the main road to unduly reduce their speed. In this context, ISD can be considered as a <i>desirable</i> visibility criterion for the safe operation of an unsignalized intersection.<br><br><b>SSD</b> - Stopping sight distance is the distance required for a vehicle approaching an intersection from either direction to perceive, react, and come to a complete stop before colliding with the exiting vehicle from a driveway. In this respect, SSD can be considered as the <i>minimum</i> visibility criterion for the safe operation of an unsignalized intersection.                | <b>Section IV</b><br><b>AASHTO Guidance</b><br>Refer to AASHTO for specific guidance on SSD and ISD if presented with an unusual/atypical case.<br>Adequate ISD is not needed at signalized intersections, assuming traffic signal heads are visible on all approaches.<br>Any object that would obstruct the driver's view should be removed or lowered, if practical. Such objects include buildings, parked cars, highway structures, hedges/vegetation/trees/bushes/unmowed lawn, walls, fences, and terrain.<br>For ISD, an object should be considered an obstruction if it obstructs the vision of a driver whose eye height is 3.5 feet above the roadway surface and the object to be seen is 3.5 feet above the surface of the intersecting road.<br>Where horizontal sight restrictions occur on downgrades, particularly at the ends of long downgrades, it is desirable to provide SSD that exceeds those values indicated above (refer to page 114 of AASHTO). |                                       |   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
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|   | <b>Observed ISD:</b>   |                                       | <b>Limiting Factors:</b>  |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
|   | 360  | looking left [east]                   | Intersection with Chestnut Street   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
| (rounded to nearest 5 feet)   | 85   | looking right [west]                  | Intersection with Highland Street   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
|   | <b>Observed SSD:</b>   |                                       |   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
|   | 85   | traveling EB                          | Intersection with Highland Street   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |
| (rounded to nearest 5 feet)   | 360  | traveling WB                          | Int. w/ Chestnut St   |                          |   |     |                     |                                   |                             |     |                      |                                   |  |                      |  |  |  |    |              |                                   |                             |     |              |                     |  |