



51, Block 28, Lot 6) and 55 Tower Road (Section 51 Block 28 Lot 5), Newton Upper Falls, Ward 5, on 22.6 acres of land in a proposed BU4 district. Ref: Sec. 7.3.3, 7.4, 4.1.2.B.1, 4.1.2.B.3, 4.1.3, 7.8.2.C, 5.4.2, 4.4.1, 5.1.4, 5.1.13, 5.1.8.B.1, 5.1.8.B.2, 5.1.8.B.6, 5.1.8.D.2, 5.1.9.A, 5.1.9.B, 5.1.10.A.1, 5.1.10, 5.1.12, 5.1.13, 5.2, 5.2.13 of the City of Newton Rev Zoning Ord, 2017.

**Action:** **Land Use Held 7-0; Public Hearing Continued**

**Note:** Attorney Alan Schlesinger, Schlesinger and Buchbinder, offices at 1200 Walnut Street, represented the petitioner and introduced members of the development in attendance which included; VHB Principal Randy Hart, Cube3 Brian O'Connor, 128 Business Council Executive Director Monica Tibbitts-Nutt and Northland CEO/Chairman Larry Gottesdiener. Atty. Schlesinger noted that the Council has received the VHB Traffic Report, 128 Business Council Implementation plan, peer review from BETA Group, the petitioner's response to the peer review dated January 4, 2019 and a letter summarizing the proposed TDM management plan and shuttle system. The attached document shuttle provides links to each document and the proposed shuttle schedule is attached. Atty. Schlesinger stated that the traffic report confirmed that there is significant traffic on Needham Street. He noted that while any use at the site will generate traffic, the site has been identified as an appropriate location for significant development. Atty. Schlesinger stated that Northland is aware of the traffic issues and is committed to addressing them with a coordinated program.

VHB Principal Randy Hart, prepared the traffic impact study which included analysis of the existing and future conditions. Mr. Hart noted that the traffic study included analysis of 19 intersections in Newton as well as 8 in Needham. The study included from the southbound 128 ramp northeast to Dedham Street and then to Centre Street, along Oak Street/Chestnut Street and up to Route 9. Manual turning and pedestrian movement counts were taken during three peak times and midday during the week. Mr. Hart stated that BETA Group is in agreement with the study regarding the study area, scope and methodologies. Mr. Hart continued, explaining that the results of the traffic study were unsurprising and demonstrated primary congestion areas as shown on the attached presentation. He stated that the study includes a conservative limit; indicating that the project will have no impact to traffic to a low range; suggesting that the proposed TDM will improve traffic conditions in the corridor. Mr. Hart stated that the average delay at signalized intersections is 6 seconds. He confirmed that the unsignalized intersections and side streets are likely to see greater delays. Mr. Hart noted that as part of the proposal, the intersections of Oak Street/Needham Street and Charlemont Street/Needham Street will be realigned. He noted that Mass DOT's Needham Street Improvements Project will be put out to bid in the Spring with Fall construction and will include additional intersection realignment, bicycle and pedestrian accommodations, ADA compliant traffic signage, extensions/additions of turn lanes, access consolidation and enhanced safety.

Cube3 Partner Brian O'Connor discussed organization of the site and the importance of permeability. Mr. O'Connor noted that the site design concept continues to be focused on permeability and designed to encourage walking, biking and public transportation. He noted that vehicle access is primarily from several points; at Needham Street, at Main Street, Tower Road and Oak Street. The proposed mobility hub is adjacent to Charlemont at the Needham Street intersection. Bicycle access is universal throughout the site, includes dedicated bike lanes, shared roadways and connects to the Greenway. Additionally, the

proposal includes connecting the Greenway to Christina Street. Within the site, pedestrian routes cross to ensure permeability from the Upper Falls neighborhood. The theme of permeability is intended to welcome people to the development and encourage access. Three features are designed to reduce reliance on cars; the prominent location of the mobility hub, how the site plan revolves around the village green and the focus on walkability. Mr. O'Connor noted that the longest walk within the site is approximately 3-4 minutes. It is hoped that the design features will encourage residents, employees and visitors to remain on site. Mr. O'Connor reiterated the importance of bike utilization and bike friendly features which will include 1105 storage spaces, air stations and repair facilities throughout the site.

Monica Tibbitts-Nutt, Executive Director, 128 Business Council, described details of the proposed shuttle system. Ms. Tibbitts-Nutt noted that the 128 Business Council, founded in 1987 is the first Transportation Management Association in Massachusetts. She stated that current operations include the operation of 10 routes from Waltham to Alewife, Newton Highlands to Needham Crossing as well as consulting services. Ms. Tibbitts-Nutt explained that Northland hired the 128 Business Council to create a robust and ambitious solution to the traffic issue. She stated that the 128 Business Council and Northland are confident that the attitudes of single vehicle occupancy users are changing regarding transportation. Ms. Tibbitts-Nutt provided details of the shuttle system and explained how ongoing monitoring allows the system to identify and respond to issues or high demand in real time. The proposed shuttle service includes four routes as shown below:

1. Newton Circulator: north-south connectivity; Newton Centre, Newton Highlands and Newtonville (peak times)
2. Commuter: connects to Needham Commuter Rail
3. Cambridge Express: Central Square and Kendall Square – every 60 minutes
4. Boston Express: every 60 minutes
5. A Backup shuttle for significant delays or emergencies

Ms. Tibbitts-Nutt explained that the proposed shuttle service will connect to existing transportation services. She stated that reliability and predictability are major factors for users. Information screens will provide shuttle information, MBTA times, rideshare times, and approximations for Uber/Lyft. She noted that the busses are comfortable, have front mounted bike racks, upgraded seats, USB ports, reading lights, natural light, odor management and ways to reduce motion sickness. Ms. Tibbitts-Nutt noted that the 128 Business Council has gathered data from the MAPC, Mass DOT, MBTA, ridership data, traffic and mode data, data from the Central Transportation Planning staff and conducted a survey of 1300 respondents. The proposed route design responds to this data. Ms. Tibbitts-Nutt emphasized the importance of implementing a new solution that attracts to members of the public. If the goals of the program are not met, Northland and the 128 Business Council will continue to work to evaluate why the goals are not being met, evaluating whether the issues are behavioral, relative to service or relative to the mode of transportation. They intend to identify and address issues by constant monitoring and collecting of data.

Larry Gottesdiener, Northland Investment Corp. Chairman and CEO, stated that they have worked to present details of the proposed project at hundreds of meetings over the past several years. He noted that Northland is aware that traffic is congested. He stated that the Needham street Improvements Project will begin to alleviate traffic congestion issues. Mr. Gottesdiener explained that Northland is

committed to successfully addressing the traffic congestion and believes that change must and will occur. He emphasized that unique design and walkability of the site of the proposed development will encourage success of the TDM. Mr. Gottesdiener noted that a by-right use could exacerbate traffic at the site, noting that office and retail require three times the amount of parking that residential space requires. Mr. Gottesdiener the resources to execute the robust traffic demand management program will be supported by the scale of the development.

In response to a question from the Chair, Atty. Schlesinger noted that the petitioner is willing to provide a major commitment to support of the shuttle system, but not in perpetuity at this time.

BETA Group Project Manager/Transportation Planner Jeff Maxtutis and BETA Group Transit Planner Craig Leiner provided details of the peer review of the Northland proposal as shown on the attached presentation. Mr. Maxtutis confirmed that the studies and plans are consistent with industry standards.

Mr. Maxtutis noted that the figures used in BETA's analysis are taken from VHB's traffic report. Mr. Hart stated that the data used in BETA's analysis does not take into consideration the shared nature of the trips (retail, restaurant, etc.) and the data VHB reports accounts for the mixed-use nature of the proposed development. He noted that the VHB data also subtracts the existing traffic at the site. Mr. Maxtutis explained that twenty intersections will have service degradation in at least one turning movement or will exacerbate existing traffic delays. The delay ranges from 10 seconds to 126 seconds at all intersections. Mr. Hart noted that the impact of the development averages an increase of 6 seconds at signalized intersections. Given the difference in the delay times, Mr. Hart and Mr. Maxtutis confirmed that they would meet to reconcile the delay times.

Mr. Leiner reviewed the details of the pedestrian and bicycle plans, the path improvements, proposed and recommended mitigation measures as shown on the attached presentation.

Committee members asked the following questions/requested the following information:

1. How does the TDM integrate with a phased construction plan? How will analysis/interim reviews demonstrate success or failure? How can we assess the proposal? (Petitioner/Planning/Peer Reviewer)
2. More information on extension of Greenway to Christina, Eliot/Newton Highlands MBTA station. (Petitioner)
3. More information on Emergency Vehicle connection to Mechanic Street. (Peer Reviewer)
4. Has the peer reviewer evaluated whether the Oak Street entrance is instrumental to success and whether it could be done without? (Peer Reviewer)
5. How will the shuttle system be coordinated with the existing Tripadvisor shuttle service?
6. If shuttle system fails, petitioner won't be impacted because of surplus of parking, neighborhood will be. Will you reduce the number of parking spots?

Mr. Gottesdiener stated that he believes that development will suffer if shuttle system fails and doesn't want that to happen. He confirmed that the petitioner intends to ask for further waivers to further reduce parking.

7. The design of this project should have a large senior housing component. The neighborhood should be built to mirror the community and should incorporate senior housing. A significant senior housing component could help to minimize car trips.
8. Review ramifications of paid parking spots and the possible overflow into neighborhood streets.
9. A list of the recommendations from Planning, Council and BETA and Northland's responses with regard to transportation.
10. How much can we add bus signal prioritization through the neighborhood by using the passive bus prioritization system?

Committee members agreed to continue the discussion relative to Transportation. Atty. Schlesinger confirmed that the petitioner will work with the Planning Department and BETA Group to provide responses to the questions raised. Committee members voted unanimously in favor of holding the item.

**#1-19**            **Class 1 Auto Dealer License**  
MMAG RETAIL HOLDINGS – CJ LLC.  
D/B/A MCGOVERN CHRYSLER JEEP DODGE RAM  
777 Washington Street  
Newton, MA. 02460

**Action:**        **Land Use Approved 7-0**

**#2-19**            **Class 1 Auto Dealer License**  
VILLAGE MOTORS GROUP, INC. D/B/A HONDA VILLAGE  
371 Washington Street  
Newton, MA. 02458

**Action:**        **Land Use Approved 7-0**

**#3-19**            **Class 1 Auto Dealer License**  
FLAHERTY EQUIPMENT SALES CORPORATION  
846 Walnut Street  
Newton, MA. 02459

**Action:**        **Land Use Approved 7-0**

**#608-18**        **Class 2 Auto Dealers License**  
OLD TIME GARAGE LTD.  
1960 Washington Street  
Newton Lower Falls, MA. 02462

**Action:**        **Land Use Approved 7-0**

**#609-18**        **Class 2 Auto Dealers License**

AUCTION DIRECT PREOWNED  
1545 Washington Street  
West Newton, MA. 02465

**#610-18**      **Class 2 Auto Dealers License**  
REGANS INC.  
2066 Commonwealth Avenue  
Auburndale, MA. 02466

**Action:**      **Land Use Approved 7-0**

**#611-18**      **Class 2 Auto Dealers License**  
LIFT THROTTLE AUTOMOTIVE, LLC  
64 Hillside Avenue  
West Newton, MA. 02465

**Action:**      **Land Use Approved 7-0**

**#612-18**      **Class 2 Auto Dealers License**  
ROBERT'S TOWING, INC.  
926r Boylston Street  
Newton Highlands, MA. 02461

**Action:**      **Land Use Approved 7-0**

**#613-18**      **Class 2 Auto Dealers License**  
NEWTON TRADE CENTER ASSOCIATES, INC.  
103 Adams Street  
Nonantum, MA. 02458

**Action:**      **Land Use Approved 7-0**

**#614-18**      **Class 2 Auto Dealers License**  
JR CAR CARE, INC.  
454 Watertown Street  
Newtonville MA 02460

**Action:**      **Land Use Approved 7-0**

**#615-18**      **Class 2 Auto Dealers License**  
KC AUTO  
55 Farwell Street  
Apartment 13  
Newtonville MA 02460

**Action:**      **Land Use Approved 7-0**

**#616-18**      **Class 2 Auto Dealers License**  
MAP DEVELOPMENT, INC. d/b/a CHRISTIAN TAPIA/MASTER USED CARS  
175 North Street

Newtonville, MA. 02460  
**Action:** **Land Use Approved 7-0**

**#617-18**      **Class 2 Auto Dealers License**  
STAN'S AUTOMOTIVE INC.  
249 Centre Street  
Newton Corner, MA. 02458

**Action:** **Land Use Approved 7-0**

**#4-19**      **Class 2 Auto Dealer License**  
NEW ENGLAND MOTOR MART, INC.  
1231-2 Washington Street  
West Newton, MA. 02465

**Action:** **Land Use Approved 7-0**

**#5-19**      **Class 2 Auto Dealer License**  
JACOBS AUTO SERVICE  
HUSSEM JACOB/JACOB & ASSOCIATES  
1232 Washington Street  
Newton, MA. 02465

**Action:** **Land Use Approved 7-0**

**#6-19**      **Class 2 Auto Dealer License**  
NEWTON CENTRE SHELL  
1365 Centre Street  
Newton, MA. 02459

**Action:** **Land Use Approved 7-0**

**#7-19**      **Class 2 Auto Dealer License**  
MOTORCARS OF BOSTON, INC.  
1191 Washington Street  
Newton, MA. 02465

**Action:** **Land Use Approved 7-0**

**#8-19**      **Class 2 Auto Dealers License**  
VELOCITY MOTORS  
14 Hawthorn Street  
Nonantum, MA. 02458

**Action:** **Land Use Approved 7-0**

**#9-19**      **Class 2 Auto Dealers License**  
ENZO'S AUTO SALES  
10 Hawthorn Street  
Nonantum, MA. 02458

**Action:** Land Use Approved 7-0

**#618-18** **Class 3 Auto Dealers License**  
ECHO BRIDGE SALVAGE CO.  
16 Maguire Court  
Newton, MA. 02458

**Action:** Land Use Approved 7-0

**#619-18** **Class 3 Auto Dealers License**  
SCHIAVONE BROTHERS INC.  
16 Maguire Court  
Newton, MA. 02458

**Action:** Land Use Approved 7-0

**Note:** It was noted that no site-specific complaints have been received from Inspectional Services, the Police Department or Consumer Affairs. Two locations are slightly behind in taxes but have confirmed that they intend to pay. Committee members expressed no concerns relative to the auto dealers' licenses and voted unanimously in support of approval.

The Committee adjourned at 10:35 pm.

**Respectfully Submitted,**

**Greg Schwartz, Chair**



Northland  
INVESTMENT CORPORATION

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Alan J. Schlesinger  
*Partner*  
*Schlesinger and Buchbinder, LLP*

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# Land Use Committee Hearing

## TONIGHTS SPEAKERS:

- Randall Hart – VHB
- Brian O'Connor – Cube3
- Peter J. Standish Jr. – Northland Investment Corporation
- Monica Tibbitts-Nutt – 128 Business Council

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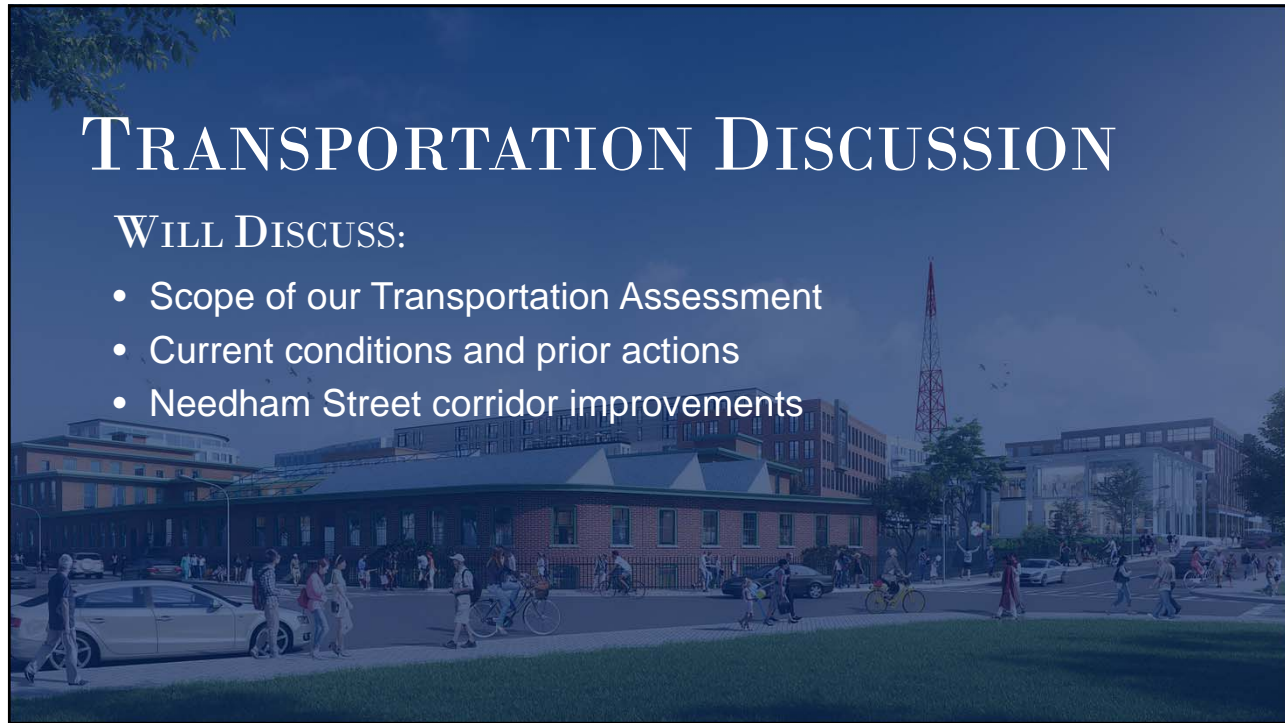
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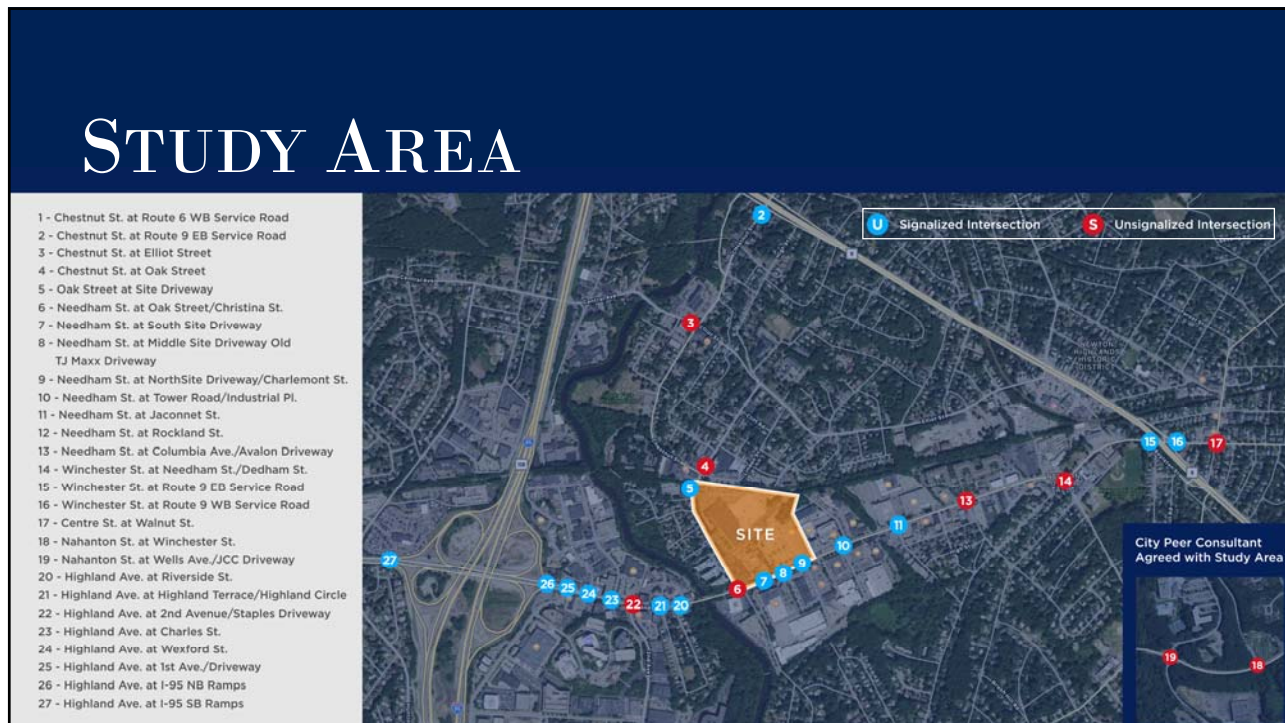
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# TRANSPORTATION DISCUSSION

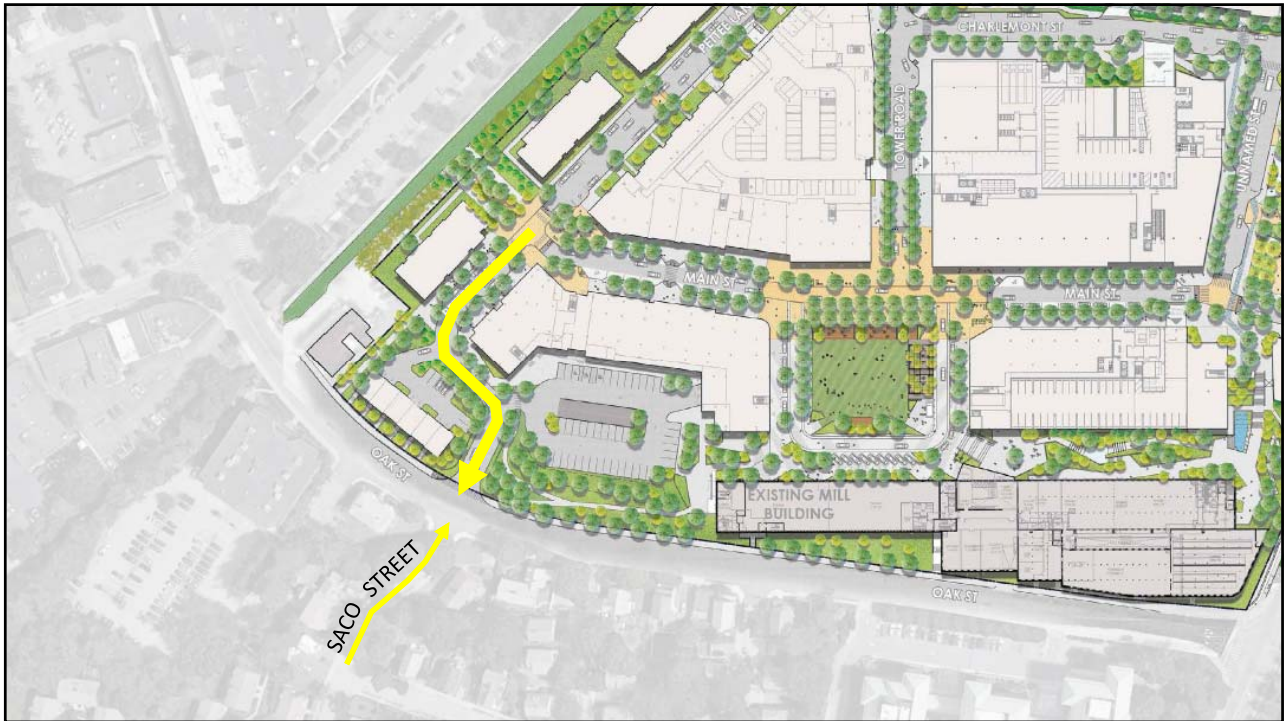
PEAK TRIPS:

Time of Day	Trips
AM Peak	160-270
PM Peak	365-450
Saturday Middy	541-601

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# CIVIC INITIATIVES



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# CIVIC INITIATIVES



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# CIVIC INITIATIVES



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# CIVIC INITIATIVES



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# MASSDOT PROJECT

## Reconstruction project of Highland Avenue, Needham Street, and Charles River Bridge:

- Re-alignment of offset intersections
- Provisions for bicycle and pedestrian accommodations throughout
- 9 upgraded or new traffic signals to ADA standards
- Extensions of turn lanes and addition of turn lanes
- Access consolidation and enhanced safety

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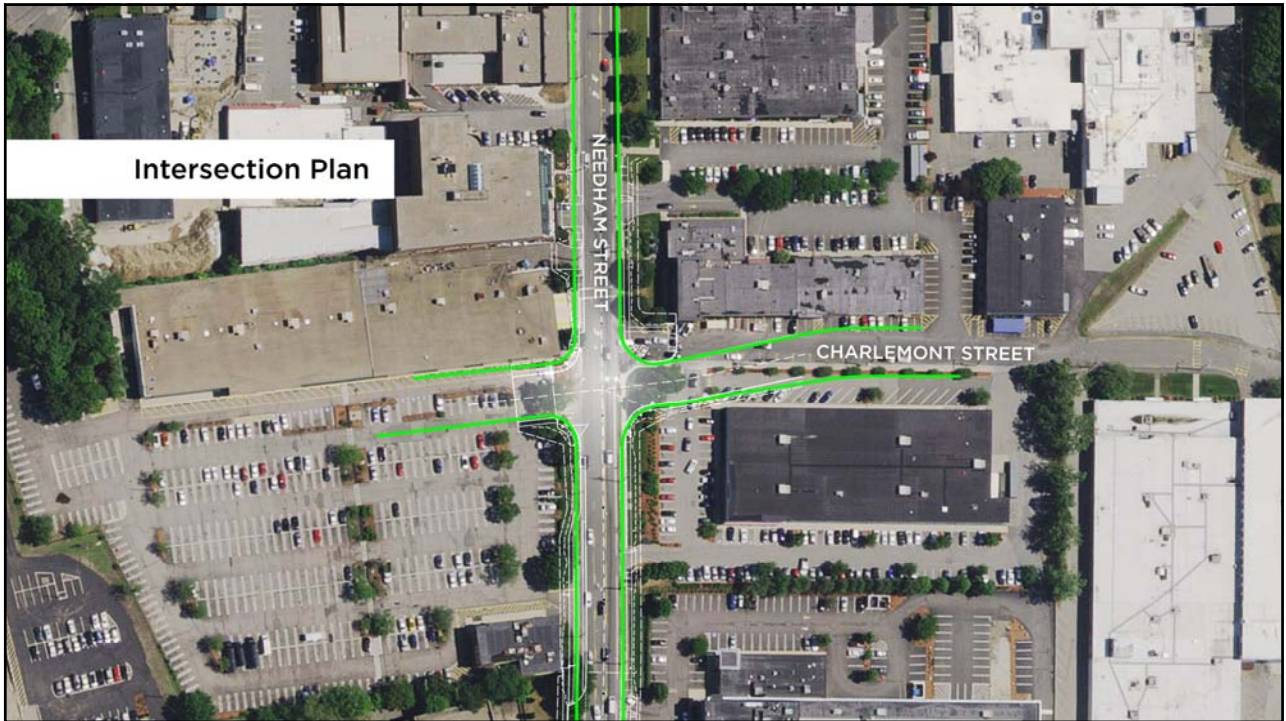
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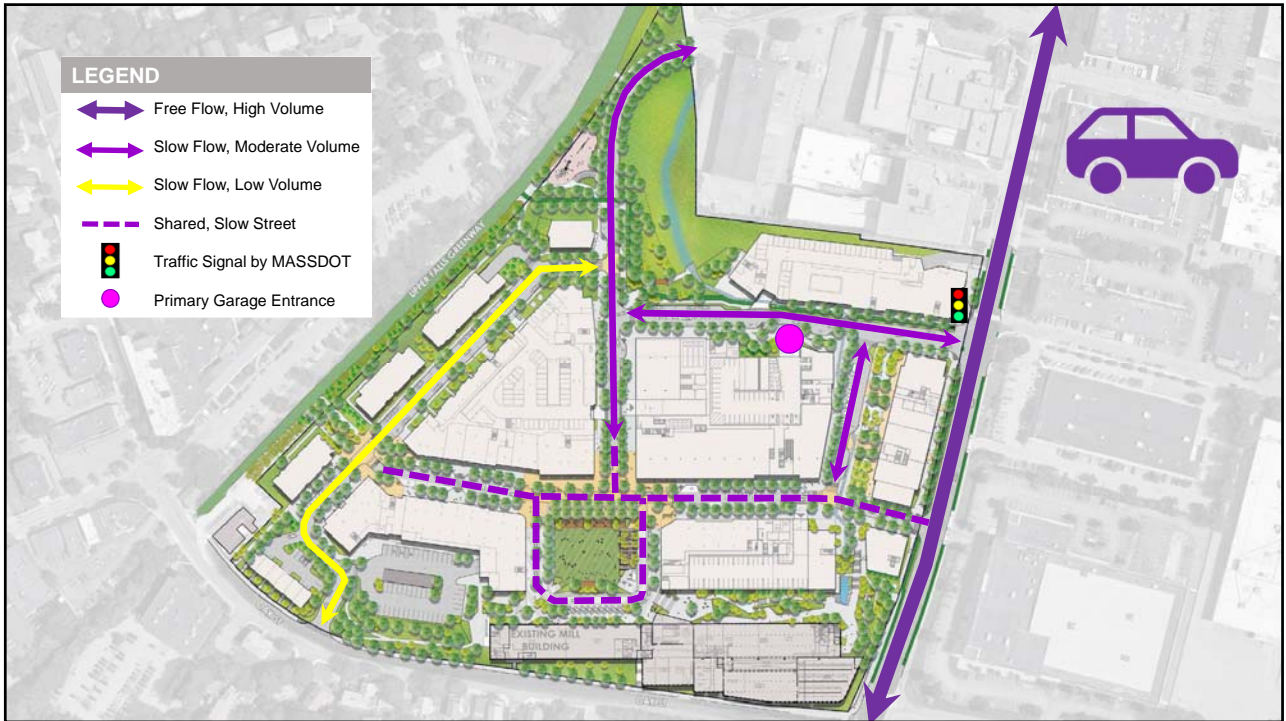
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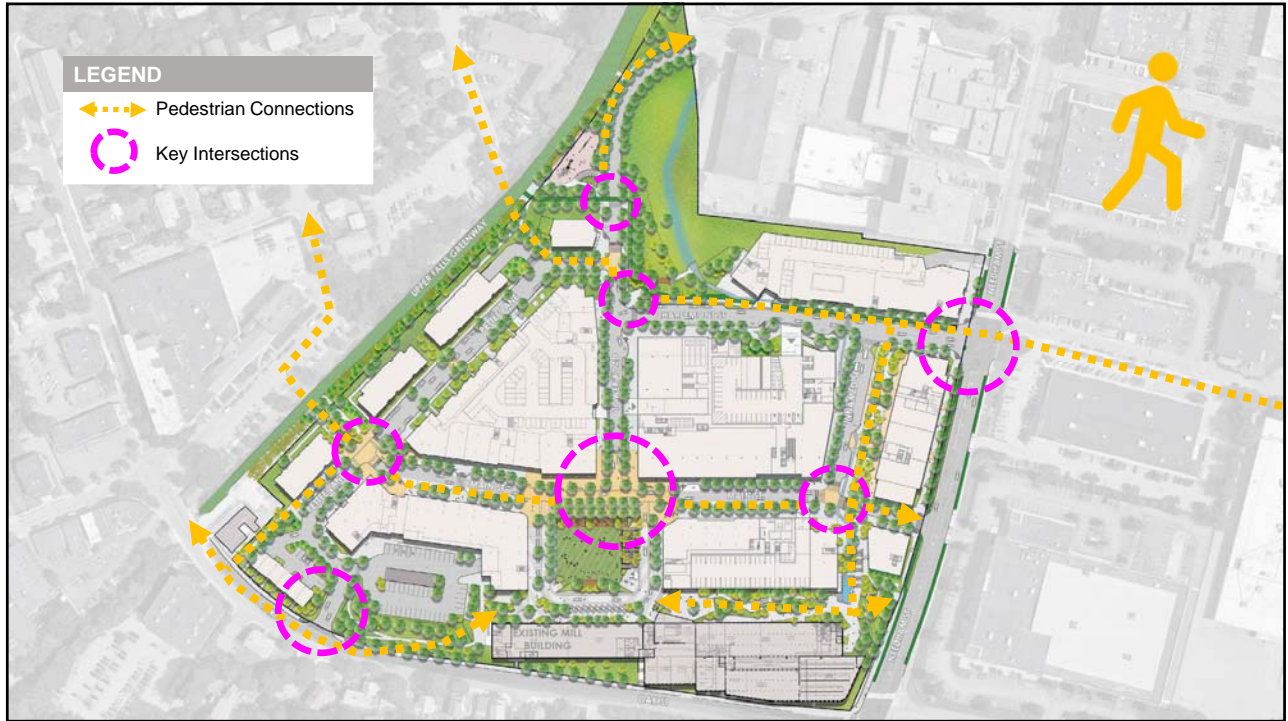




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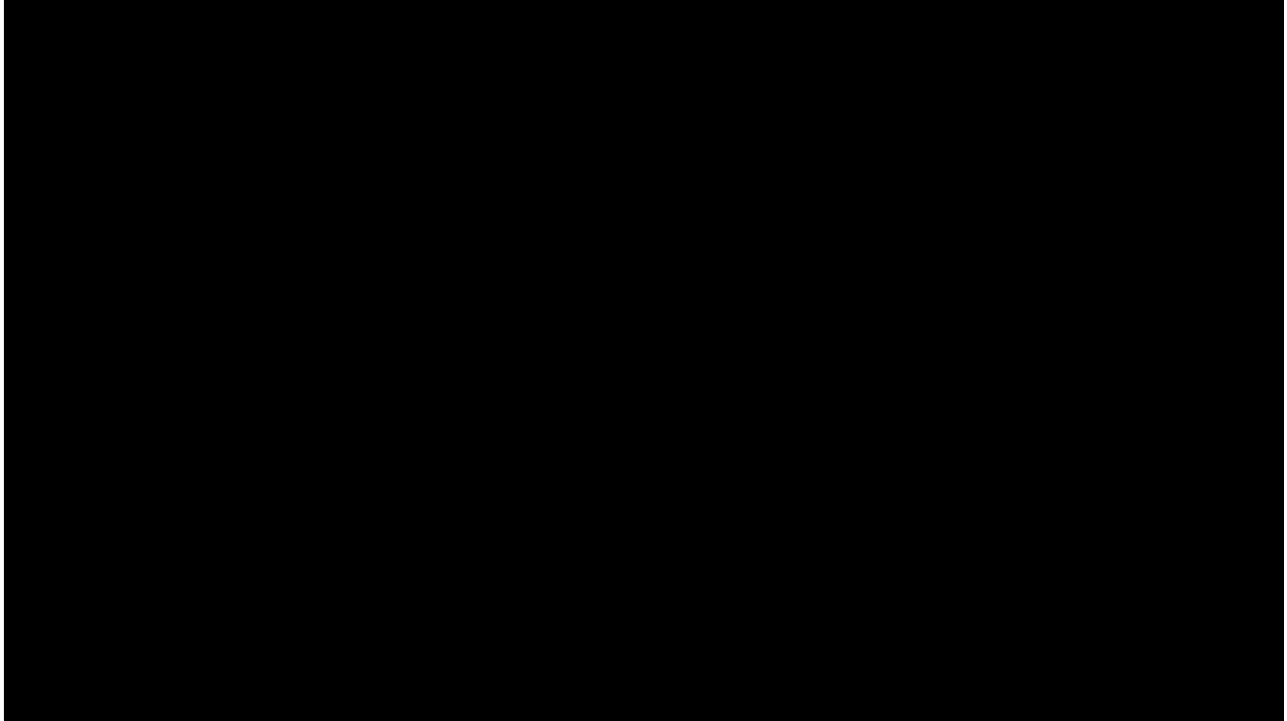
# Bicycle Integration



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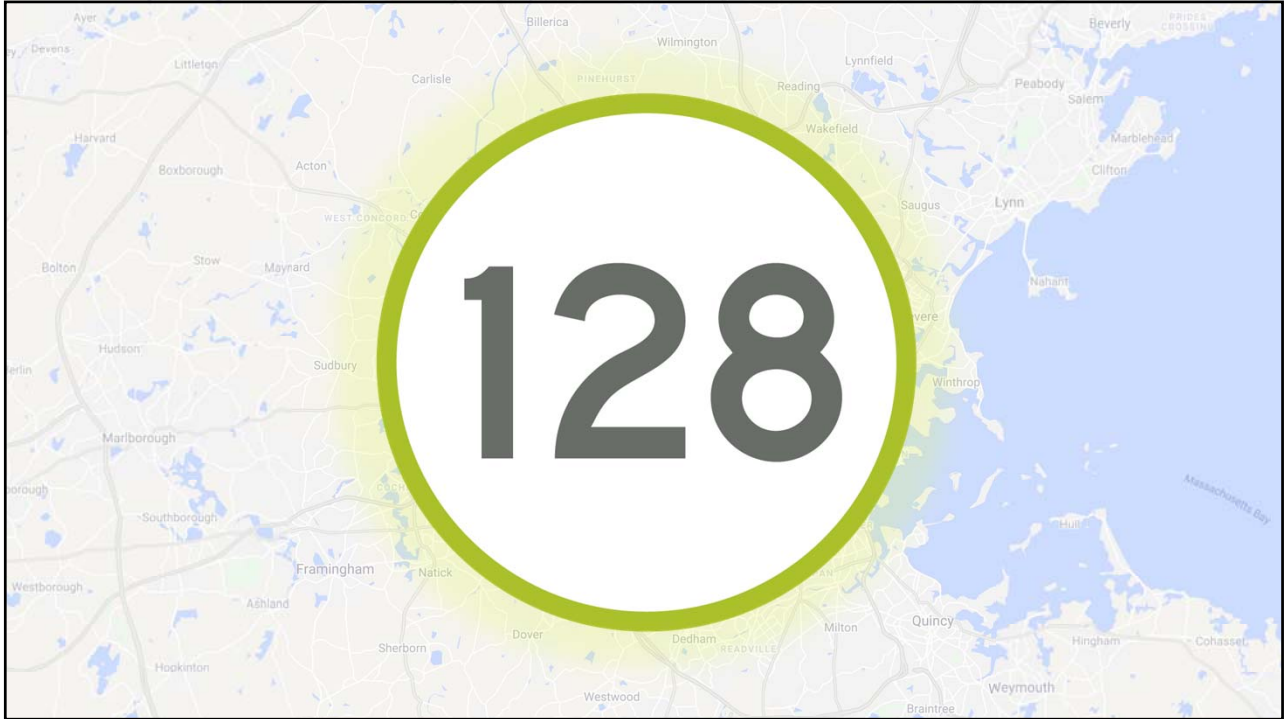
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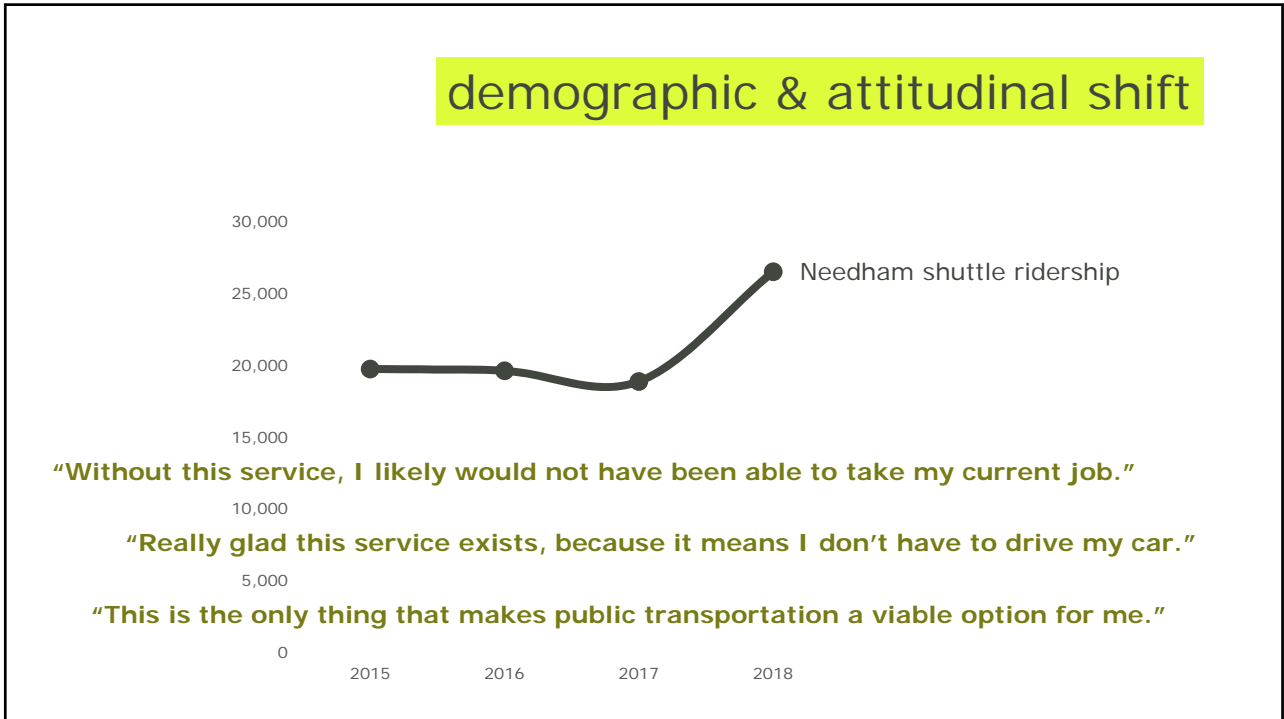
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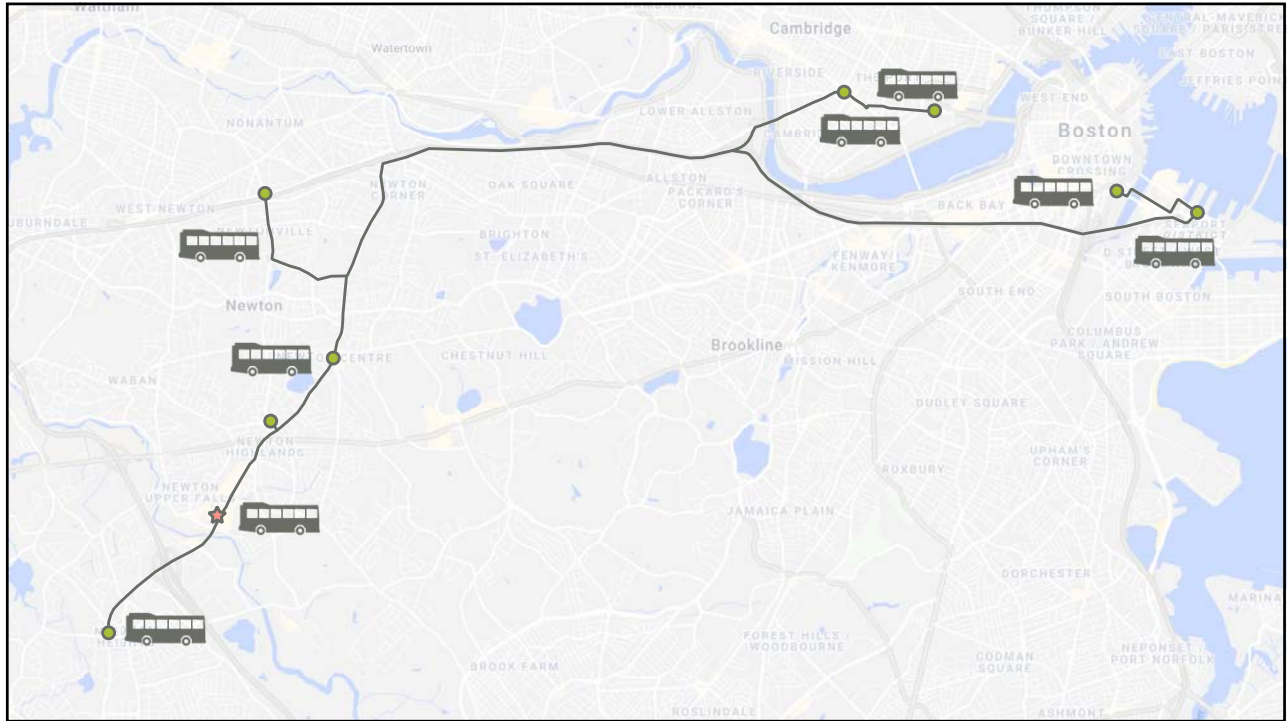


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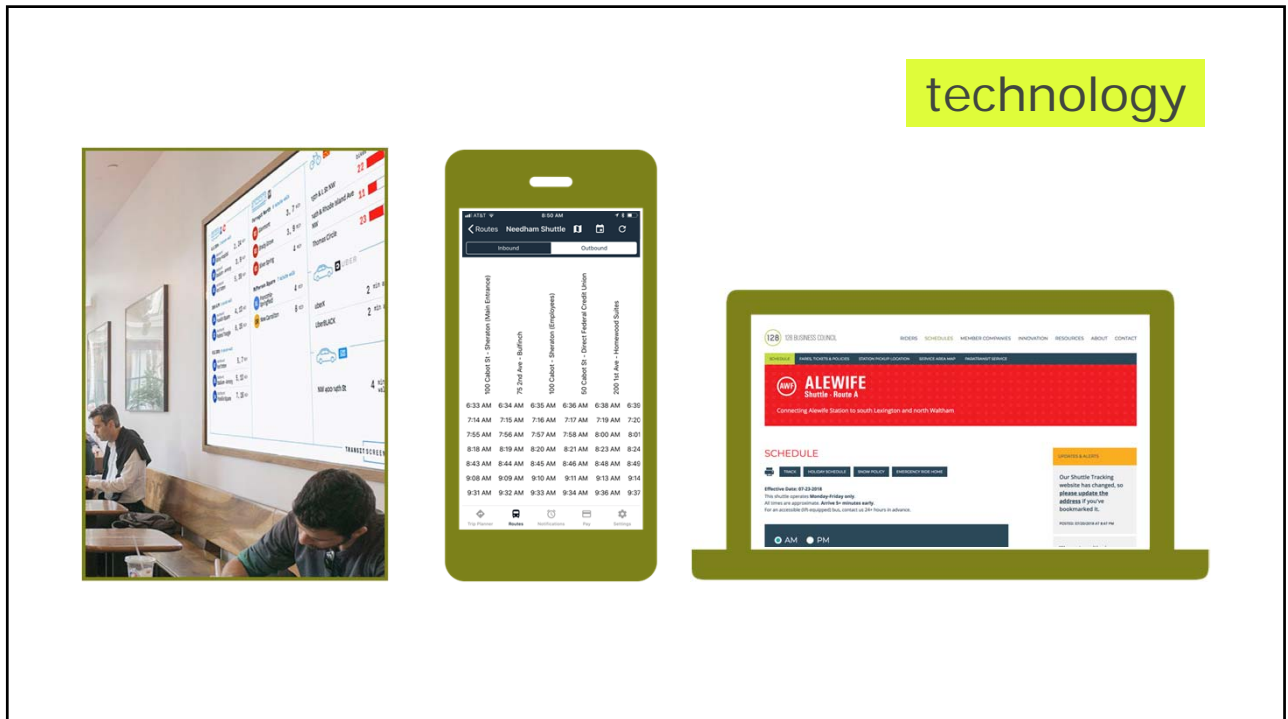


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**reading lights & USB chargers**

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**light & odor management**

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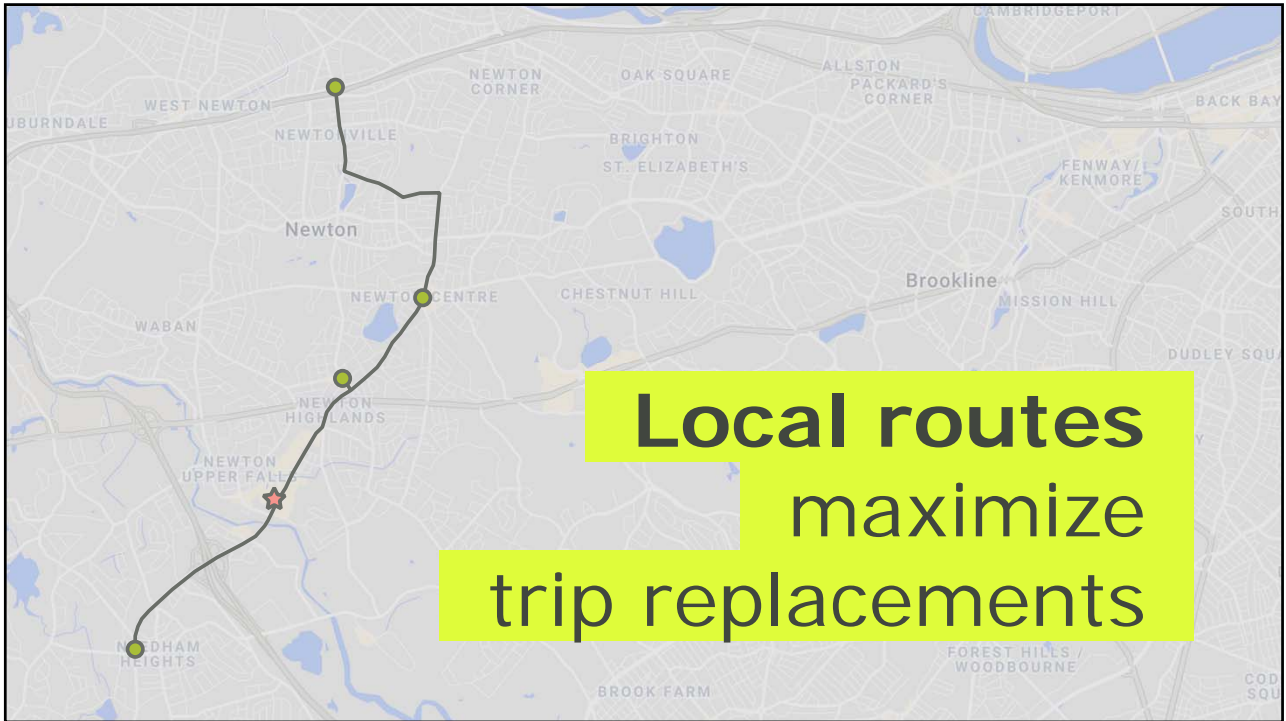
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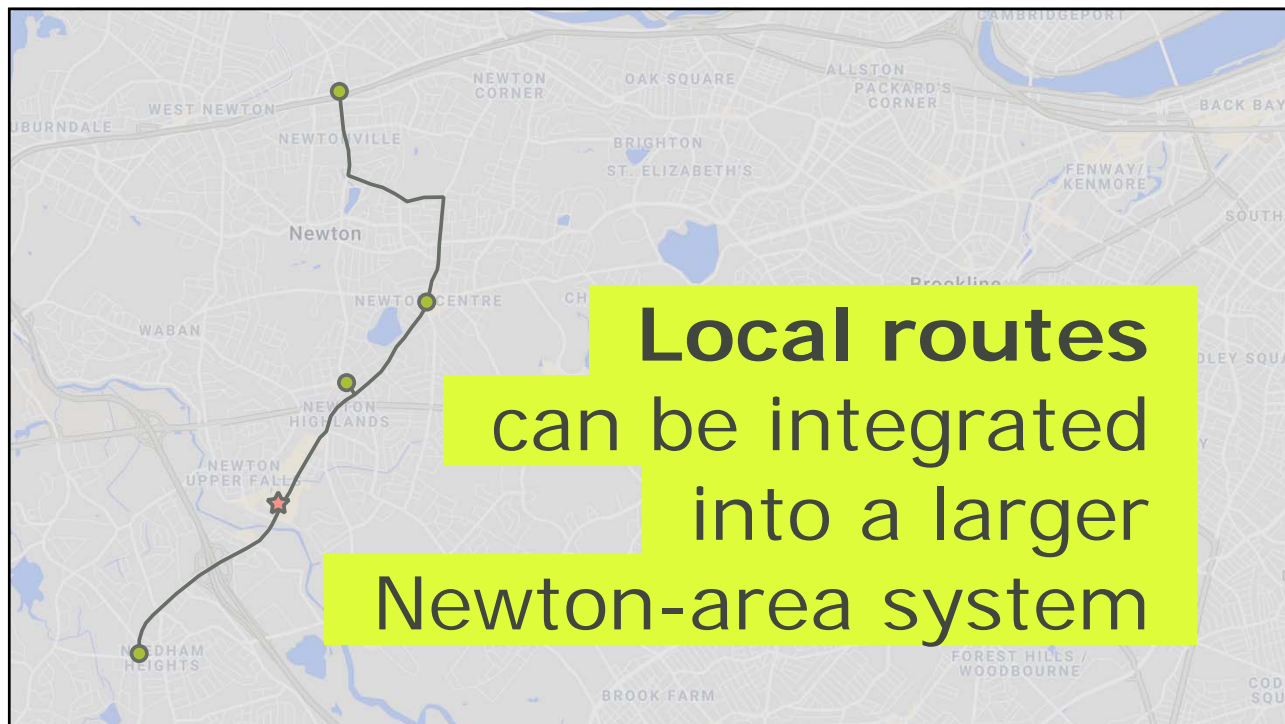
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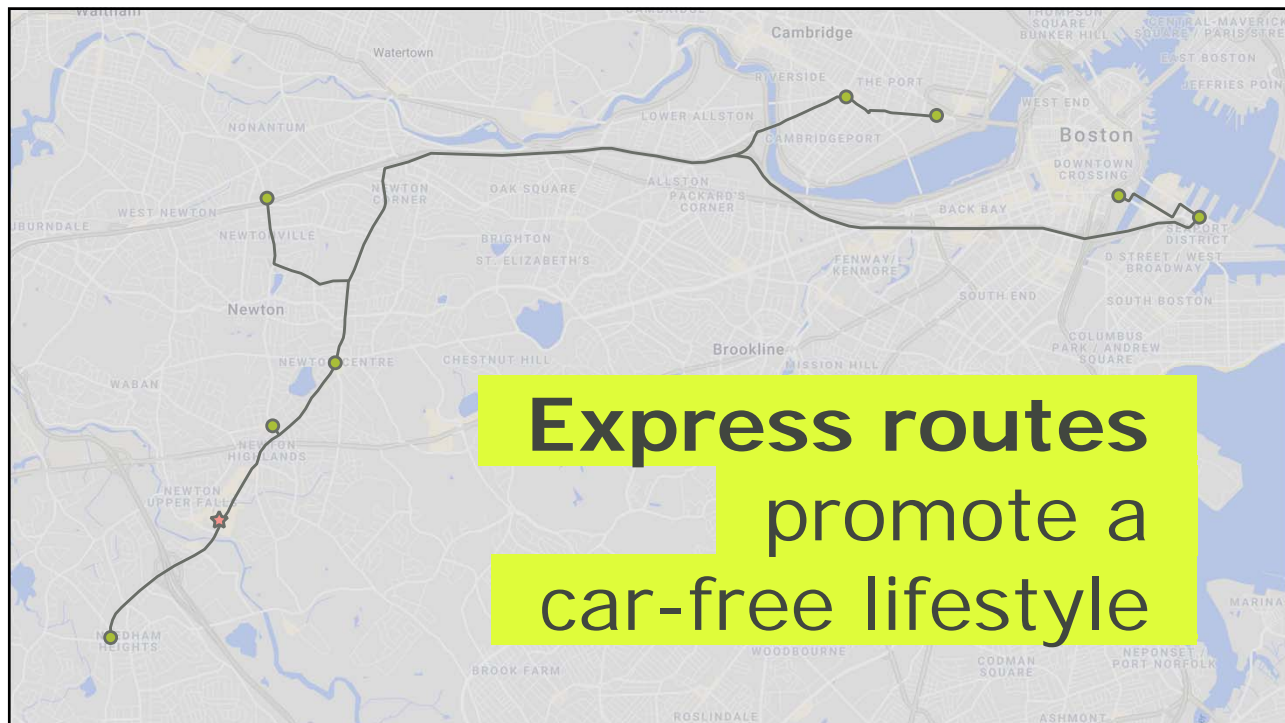
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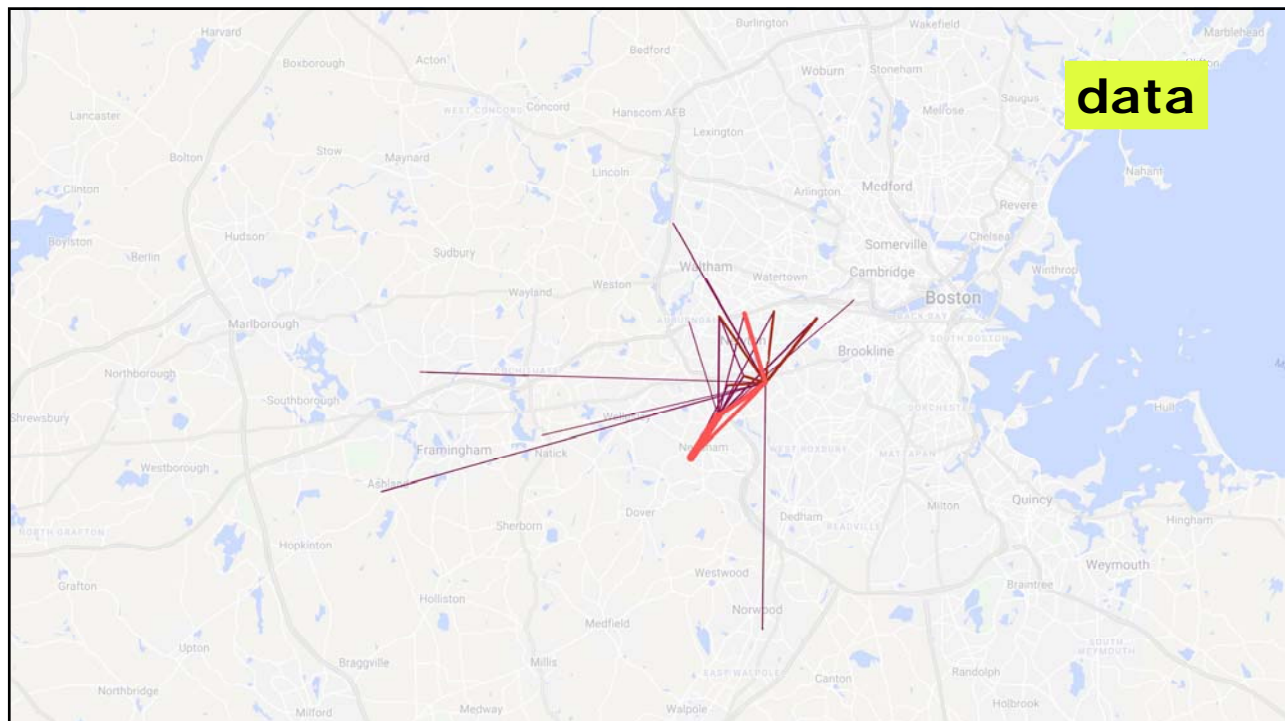
# Will these routes succeed?

demographic & attitudinal shift

mutual reinforcement from other  
shuttle routes & public transportation

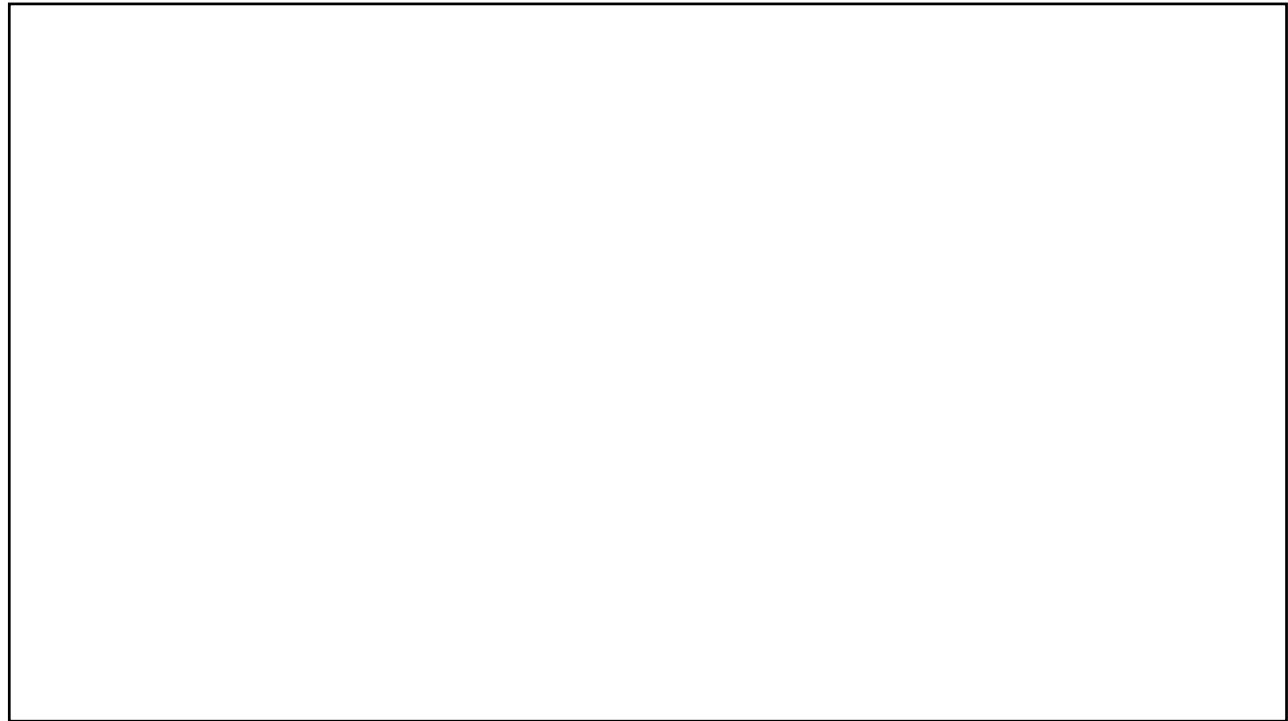
a superior experience

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## Protocols for Data Collection & Re-evaluation

daily, monthly, yearly ridership tracking

at least yearly surveying of all riders  
beginning approx. 6 months after services

at least bi-yearly surveying of community  
beginning approx. 6 months before services

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## Ridership Goals

	Route 1	Route 2	Route 3	Route 4	
weekly on-peak capacity	1378	736	672	672	3458 trips
<b>on-peak ridership goal</b>	1033.5	441.6	403.2	403.2	<b>2281.5 trips</b>
weekly off-peak capacity	1344	--	512	512	2368 trips
<b>off-peak ridership goal</b>	403.2	--	102.4	102.4	<b>608 trips</b>
total capacity	2722	736	1184	1184	5826 trips
<b>total weekday ridership goal</b>	1436.7	441.6	505.6	505.6	<b>2889.5 trips</b>

67

## What if we don't meet these goals?

Is it a behavioral (=marketing) issue?

Is it a service issue?

Is it a route issue?

Is it a mode issue?

68

# The Mobility Hub



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# A Major Public Commitment



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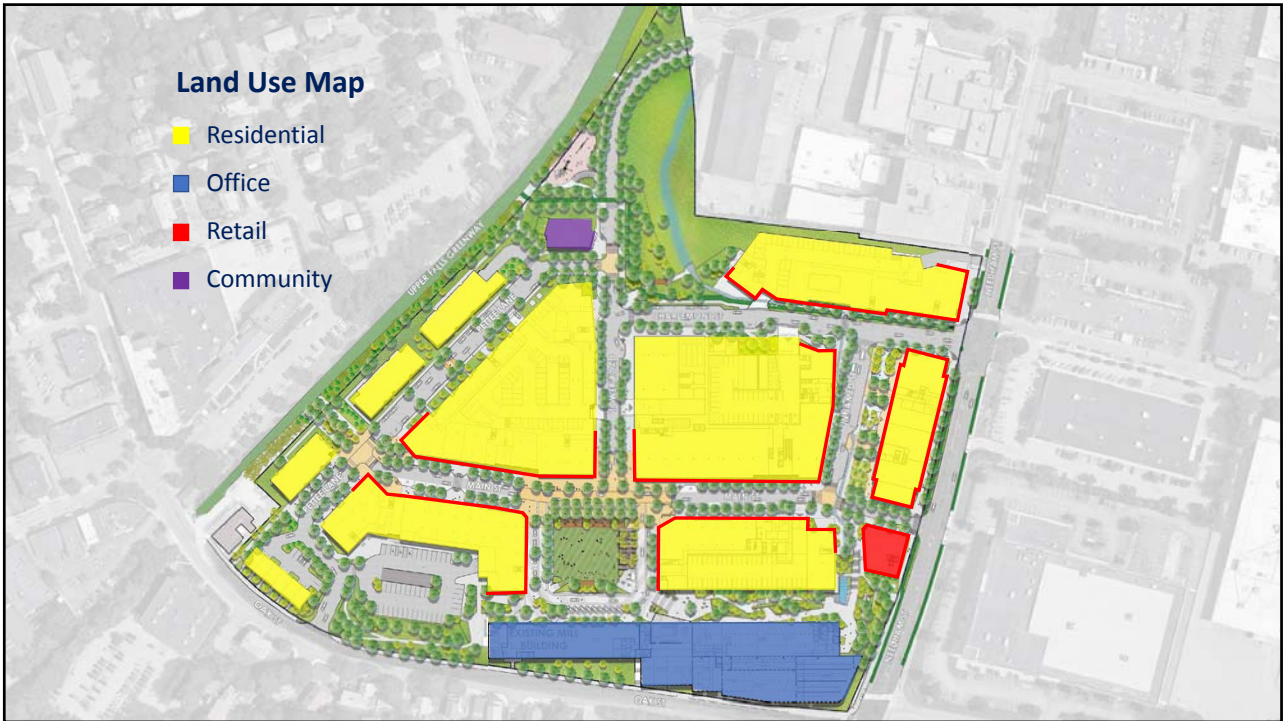
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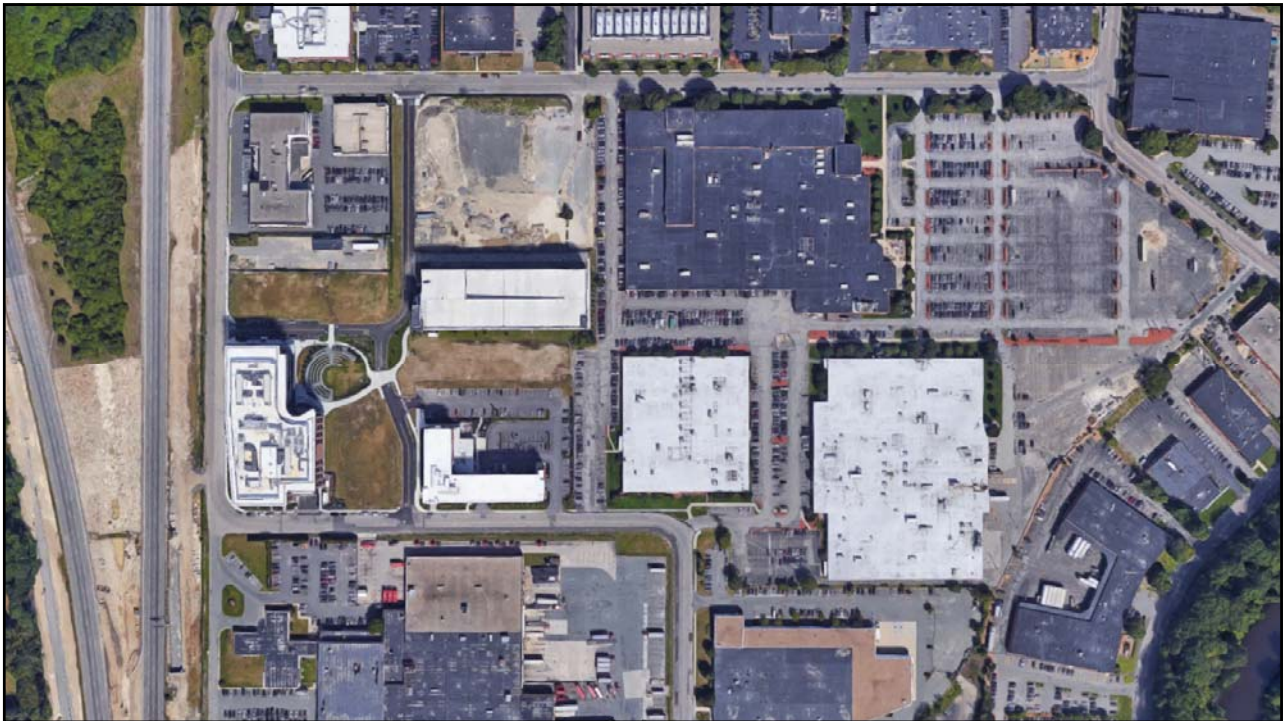
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# PARKING COMPARISON BY USE



**OFFICE**

3 Parking Spaces / 1000 SF



**RESIDENTIAL**

1 Parking Space / 1000 SF (Unit)



**RETAIL**

3 Parking Spaces / 1000 SF

77



78



79



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**Alan J. Schlesinger**  
*Partner*  
*Schlesinger and Buchbinder, LLP*

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# LUC PRESENTATION SCHEDULE

September 25 <sup>th</sup> , 2018	Project Overview
November 13 <sup>th</sup> , 2018	Site Design and Open Space
December 11 <sup>th</sup> , 2018	Housing and Economic Impacts
January 15 <sup>th</sup> , 2019	Transportation
January 29 <sup>th</sup> , 2019	Sustainability and Stormwater
February 12 <sup>th</sup> , 2019	Architecture and Design Guidelines
March 12 <sup>th</sup> , 2019	Project Revisions / Mitigation

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## **DOCUMENT SUMMARY**

January 15, 2019

VHB - Transportation Impact and Access Study - October, 2018

<http://www.newtonma.gov/civicax/filebank/documents/92313>

VHB – Appendices to TIAS – October 2018

<http://www.newtonma.gov/civicax/filebank/documents/92316>

128 Business Council – Transportation Implementation Plan October 2018

<http://www.newtonma.gov/civicax/filebank/documents/92315>

Planning Department/BETA Group memo/Peer Review/ Northland Response, January 2019

<http://www.newtonma.gov/civicax/filebank/documents/94582>

Transportation Demand Management Summary – Letter of Schlesinger and Buchbinder  
January 9, 2019

# ROUTE 1: NEWTON CIRCULATOR

## Monday - Friday

	morning											afternoon		
<i>depart northbound</i> Transit Hub	5:15	5:45	6:15	6:45	7:30	8:15	9:00	9:45	10:30	11:15	12:00	12:45	1:30	
<i>depart northbound</i> Newton Highlands	5:25	5:56	6:26	6:56	7:43	8:29	9:12	9:57	10:42	11:27	12:12	12:57	1:42	
<i>depart northbound</i> Newton Centre	5:34	6:05	6:36	7:07	7:55	8:41	9:24	—	—	—	—	—	—	
<i>depart southbound</i> Newtonville	5:45	6:17	6:49	7:25	8:15	9:01	9:44	—	—	—	—	—	—	
<i>depart southbound</i> Newton Centre	5:56	6:28	7:02	7:41	8:33	9:19	10:02	10:07	10:52	11:37	12:22	1:07	1:52	
<i>depart southbound</i> Newton Highlands	6:03	6:35	7:10	7:51	8:44	9:28	10:10	10:15	11:00	11:45	12:30	1:15	2:00	
<i>arrive</i> Transit Hub	6:12	6:45	7:20	8:03	8:56	9:40	10:22	10:27	11:12	11:57	12:42	1:27	2:12	

														evening		
2:15	3:15	4:00	4:45	5:30	6:15	7:00	7:45	8:30	9:15	10:00	10:45	11:30	12:15	Transit Hub		
2:27	3:27	4:12	4:57	5:43	6:28	7:12	7:57	8:42	9:26	10:11	10:55	11:40	12:25	Newton Highlands		
—	3:37	4:23	5:08	5:54	6:40	7:22	—	—	—	—	—	—	—	Newton Centre		
—	3:54	4:40	5:25	6:11	6:57	7:36	—	—	—	—	—	—	—	Newtonville		
2:37	4:12	4:58	5:43	6:31	7:17	7:50	8:09	8:54	9:36	10:21	11:05	11:50	12:35	Newton Centre		
2:45	4:23	5:09	5:54	6:42	7:27	7:58	8:17	9:02	9:44	10:29	11:13	11:58	12:43	Newton Highlands		
2:57	4:37	5:24	6:10	6:56	7:39	8:10	8:29	9:13	9:54	10:39	11:23	12:08	12:53	Transit Hub		

Out-and-back trips shown in blue would be covered by second shuttle.

## Saturday - Sunday

	morning											afternoon				
<i>depart northbound</i> Transit Hub	6:15	7:00	7:45	8:30	9:15	10:00	10:45	11:30	12:15	1:00	1:45	2:30	3:15			
<i>depart northbound</i> Newton Highlands	6:26	7:11	7:56	8:42	9:27	10:12	10:57	11:42	12:27	1:12	1:57	2:42	3:27			
<i>depart southbound</i> Newton Centre	6:36	7:21	8:06	8:52	9:37	10:22	11:07	11:52	12:37	1:22	2:07	2:52	3:37			
<i>depart southbound</i> Newton Highlands	6:44	7:29	8:14	9:00	9:45	10:30	11:15	12:00	12:45	1:30	2:15	3:00	3:45			
<i>arrive</i> Transit Hub	6:54	7:39	8:24	9:12	9:57	10:42	11:27	12:12	12:57	1:42	2:27	3:12	3:57			

														evening		
4:00	4:45	5:30	6:15	7:00	7:45	8:30	9:15	10:00	10:45	11:30	12:15	Transit Hub				
4:12	4:57	5:42	6:27	7:12	7:57	8:42	9:26	10:11	10:55	11:40	12:25	Newton Highlands				
4:22	5:07	5:52	6:37	7:22	8:07	8:52	9:36	10:21	11:05	11:50	12:35	Newton Centre				
4:30	5:15	6:00	6:45	7:30	8:15	9:00	9:44	10:29	11:13	11:58	12:43	Newton Highlands				
4:42	5:27	6:12	6:57	7:42	8:27	9:12	9:54	10:39	11:23	12:08	12:53	Transit Hub				



# ROUTE 2: NEEDHAM COMMUTER

## Needham Heights

**connections** Commuter Rail—Needham Line and Route 59 Bus

**mbta service** Commuter rail service runs Monday-Saturday. Does allow for several rush-hour reverse commute trips, so the schedule is arranged accordingly.

**hours** Terminates inbound at South Station.

**accessibility** Needham Heights is accessible.

**stop utility** Needham Heights is the end of the line, so the shuttle would exclusively offer service in and out of Boston.

In the morning, the Needham Heights shuttle stop would allow the shuttle to drop off commuters heading into Boston and pick up commuters coming into Newton.

In the evening, the shuttle would drop off riders heading into Boston (for late-shift work or recreational purposes) and then pick up commuters returning to Newton.

Since Needham Heights is the only stop on this route, it's possible to arrange the schedule such that the shuttle arrives in time to drop off riders prior to departures into Boston and then wait at the station to pick up riders heading back to the Transit Hub, rather than having one stop time that splits the difference between the two.

The shuttle could also pick up local-trip commuters, who would just be using Needham Heights as a convenient hub.

**stop logistics** Needham Heights Station is located in a neighborhood commercial center. The shuttle drop-off/pick-up location would be on Avery Square, immediate adjacent to the train platforms, and the station features a loop for easier turn-arounds.

	morning					
<i>depart southbound</i> Transit Hub	5:50	6:30	7:10	7:45	8:30	9:45
<i>arrive</i> Needham Heights	5:56	6:38	7:18	7:54	8:39	9:54
<i>depart northbound</i> Needham Heights	6:10	6:45	7:25	8:07	8:50	10:10
<i>arrive</i> Transit Hub	6:20	6:57	7:39	8:23	9:06	10:24
	afternoon/evening					
<i>depart southbound</i> Transit Hub	4:30	5:10	5:55	6:30	7:05	7:40
<i>arrive</i> Needham Heights	4:42	5:22	6:05	6:40	7:13	7:47
<i>depart northbound</i> Needham Heights	4:52	5:37	6:14	6:50	7:25	8:15
<i>arrive</i> Transit Hub	5:08	5:53	6:28	7:02	7:37	8:27





# ROUTE 3: CAMBRIDGE EXPRESS

	morning							afternoon		
<i>depart eastbound</i> Transit Hub	—	6:00	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00
<i>depart eastbound</i> Central Square	5:45	6:45	7:45	8:45	9:45	10:45	11:45	12:45	1:45	2:45
<i>depart westbound</i> Kendall Square	5:55	6:55	7:55	8:55	9:55	10:55	11:55	12:55	1:55	2:55
<i>arrive</i> Transit Hub	6:40	7:40	8:40	9:40	10:40	11:40	12:40	1:40	2:40	3:40

		evening								
3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	Transit Hub	
3:45	4:45	5:45	6:45	7:45	8:45	9:45	10:45	11:45	Central Square	
3:55	4:55	5:55	6:55	7:55	8:55	9:55	10:55	11:55	Kendall Square	
4:40	5:40	6:40	7:40	8:40	9:40	10:40	11:40	12:40	Transit Hub	

recommended initial  
number of  
buses **2**

potential  
initial service  
hours **5:45am - 12:45am, Monday-Sunday**

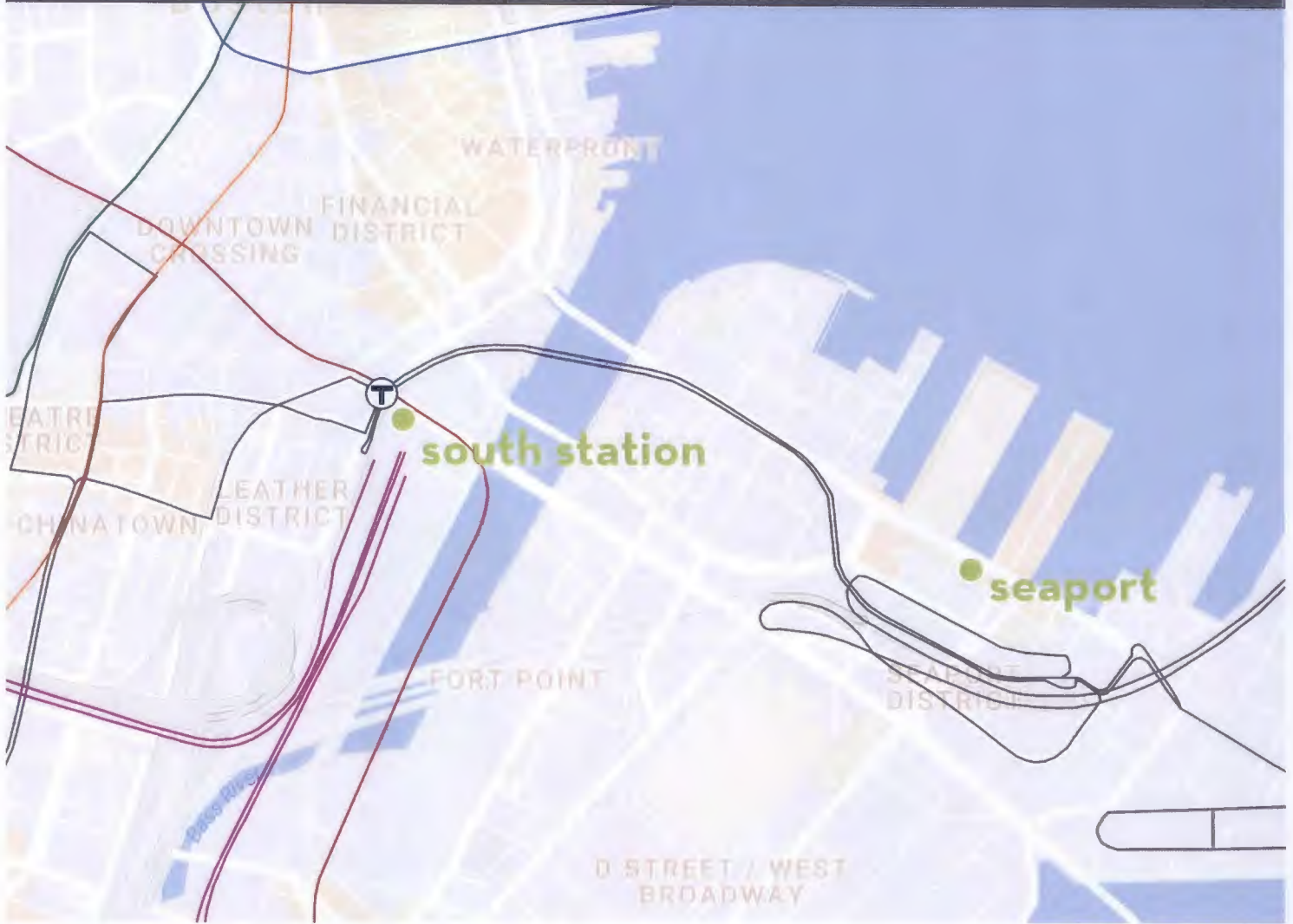
potential  
initial  
frequency **60 minutes**

weekly  
bus hours **257.25**

potential  
weekly rides **8,288**



# ROUTE 4: BOSTON EXPRESS



	morning							afternoon		
<i>depart eastbound</i> Transit Hub	—	6:00	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00
<i>depart eastbound</i> Seaport/WTC	5:45	6:45	7:45	8:45	9:45	10:45	11:45	12:45	1:45	2:45
<i>depart westbound</i> South Station	5:58	6:58	7:58	8:58	9:58	10:58	11:58	12:58	1:58	2:58
<i>arrive</i> Transit Hub	6:43	7:43	8:43	9:43	10:43	11:43	12:43	1:43	2:43	3:43

		evening								
3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	Transit Hub	
3:45	4:45	5:45	6:45	7:45	8:45	9:45	10:45	11:45	Seaport/WTC	
3:58	4:58	5:58	6:58	7:58	8:58	9:58	10:58	11:58	South Station	
4:43	5:43	6:43	7:43	8:43	9:43	10:43	11:43	12:43	Transit Hub	






1

## Peer Review Presenters

- Jeff Maxtutis, Project Manager, Transportation Planner, BETA Group, Inc.
- Craig Leiner, Transit Planner, BETA Group, Inc.



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## Peer Review Process

- BETA Group, Inc. and Alta Planning + Design, Inc.
- Conducted site visits and peak period observations
- Traffic Impact and Access Study, October, 2018, VHB, Inc.
- Transportation Implementation Plan 128, October 16, 2018, 128 Business Council
- Project Site Plans, August 6, 2018
- Focus of presentation on major transportation issues for all modes

The logo for BETA, consisting of the letters B, E, T, and A in white, each inside a dark red square, which are then arranged horizontally.

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## Peer Review Process

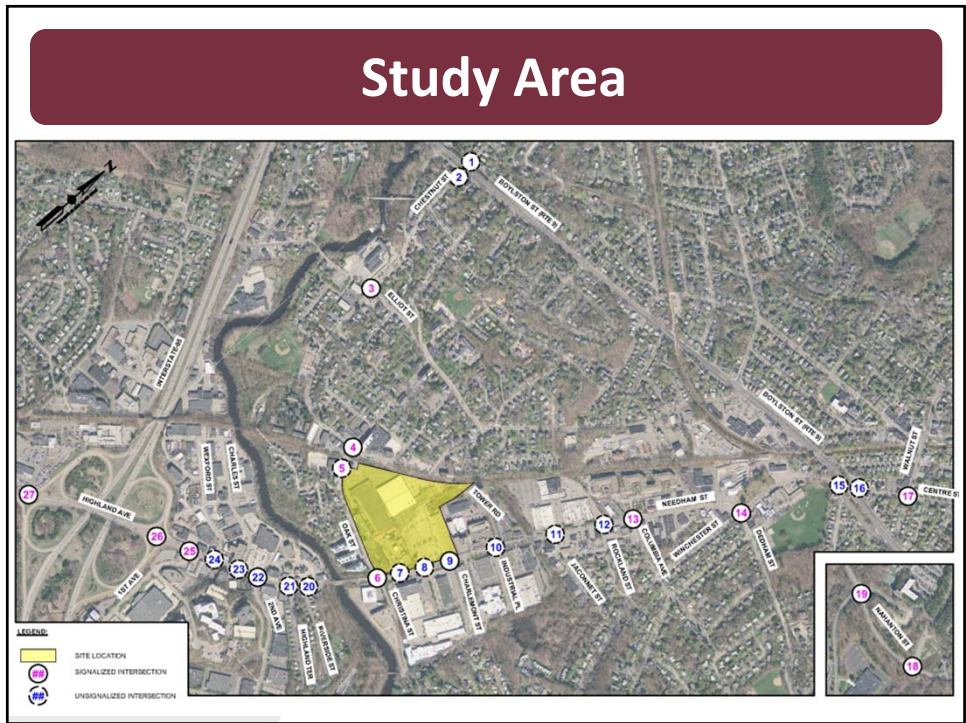
- Review also included:
  - Internal Circulation
  - Loading & curbside activity
  - Transportation Demand Management (TDM)
  - Consistency with Newton Street Design Guide and Needham Street Vision Plan
- Overall, the studies and plans have met state and industry professional practice standards

The logo for BETA, consisting of the letters B, E, T, and A in white, each inside a dark red square, which are then arranged horizontally.

4



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## Existing Traffic Issues

- Significant congestion and delay along Needham Street corridor during Weekday AM, Midday, PM and Saturday Midday
- Vehicle speeds along Needham St corridor 4-5 MPH at peak periods
- Few vehicle gaps available
- High crash rates at 12 study intersections



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## Future Traffic Conditions


- Proposed MassDOT improvements along Needham Street/Highland Avenue and Winchester Street corridors
- To Improve traffic operations, safety, & multi-modal mobility
  - New signals at Needham St/Charlemont Ave & Winchester St Rt. 9 EB & WB Service Rd
  - Realign Charlemont Ave to align with site driveway
  - Updated signal timings
  - New raised bike lanes and upgraded sidewalks
  - 7 new crosswalks
  - Left turns along Highland Ave
  - Shared use path on bridge over Charles River



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## Future Traffic Conditions

- Other Intersection improvements at:
  - Needham St/Oak St/Christina St (Newton)
  - Nahanton St (Newton)
  - Highland Ave./First Ave (Needham)
  
- 2025 Analysis Year
  - Proposed roadway improvements
  - Other planned developments
  - Background traffic growth (0.5%/year)




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## Project Vehicle Trip Generation

**Vehicle Trip Generation Summary**


Build Condition	Weekday AM Peak Hour	Weekday PM Peak Hour	Saturday Midday Peak Hour
Existing Bus Mode Share	545	815	950
Robust Bus Mode Share	438	733	890



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## Project Traffic Impacts

- 20 study intersections impacted
- Degrades intersection LOS to E or F, or exacerbates LOS E/F conditions
- Increases driver delay between 10 and 126 seconds
- Project impacts related to proposed shuttle bus system ridership
- Traffic impacts even with Robust Mode Share



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## Intersections Impacted by Project



**LEGEND:**

- SITE LOCATION
- IMPACTED INTERSECTION
- OTHER INTERSECTIONS

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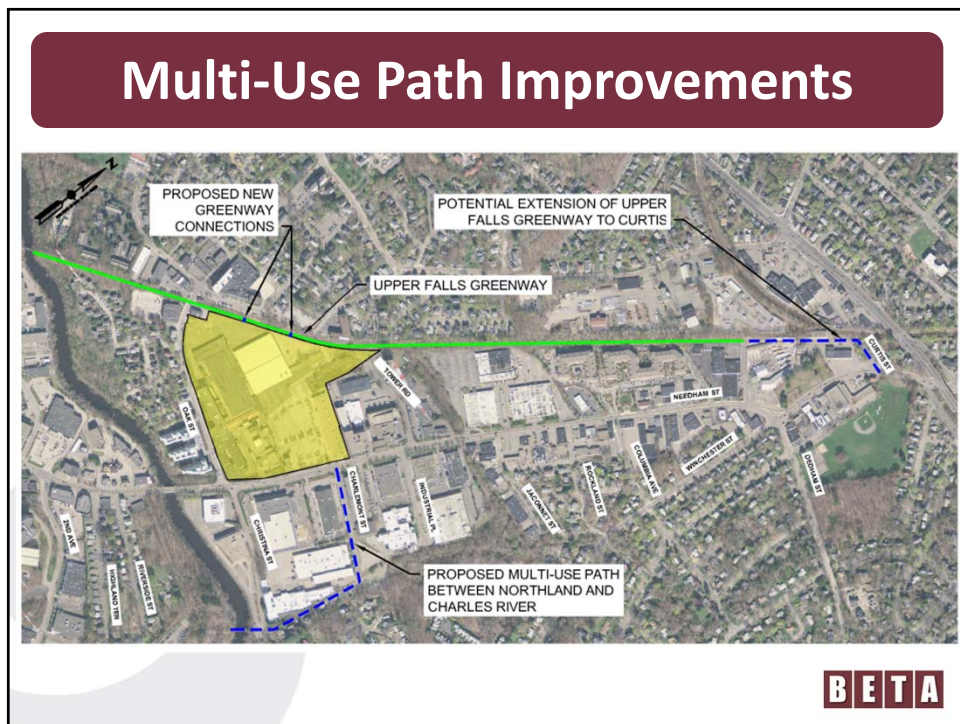
## Project Parking

- 3,409 parking spaces required per Newton Zoning Ordinance
- Project proposes 1,953 spaces (1,793 garages, 160 surface)
- 1.0 space per residential unit – meets MBTA & MassDOT TOD guidelines
- ULI Shared Parking Guidelines estimate 2,149 weekday spaces & 2,283 weekend spaces
- Average required spaces for 6 other area communities = 2,077 spaces
- Need additional information on shared parking and paid parking

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## Applicant Proposed Mitigation

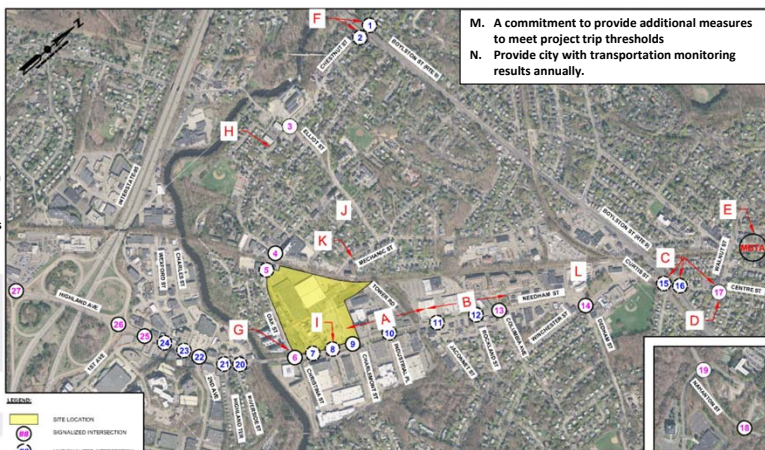
- Signal Timing Adjustments (Chestnut St)
  - Pedestrian Improvements
    - Upgrade curb ramps and Crosswalks (Chestnut St)
    - Multi-Use path across Charles River
    - Provide connections to Upper Falls Greenway
- Transportation Demand Management Program
    - Shuttle Bus System
    - Mobility Hub
    - TDM Coordinator
    - Rideshare options
    - Monitoring Program



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## Recommended Mitigation

- A. Provide Signal Monitoring System to DPW
- B. Provide Transit Signal Priority System
- C. Coordinate Signals
- D. Provide Safety & Operations Improvements
- E. Assess Shuttle Bus Operations at Newton Highlands
- F. Provide New Traffic and Pedestrian Signals
- G. Extend Oak Street approach lanes
- H. Provide Traffic Calming Improvements
- I. Prohibit Left Turn Exit
- J. Conduct Speed Study at Upper Falls & Provide Traffic Calming Measures
- K. Provide Emergency Vehicle Connection at Mechanic St
- L. Extend Upper Falls Greenway to Curtis Street




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## Public Transportation

- Existing conditions
- Proposed shuttle bus program
- Mode share goal
- Concluding comments




BETA

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## Existing Conditions: Transit

- MBTA
  - Two bus routes (52 and 59)
  - Light rail (Green Line “D” Branch)
  - Commuter rail: Needham and Worcester/Framingham
  - The RIDE - Paratransit



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## Existing Conditions: Mode Share

**Newton Mode Share (2010)**

	Private Vehicle	Transit	Walk/Bike
Residents of Newton	82%	13%	5%
Workers in Newton	88%	7%	5%

**Newton Mode Share (2015)**

	Private Vehicle	Transit	Walk/Bike	Worked at Home
Residents of Newton	72%	12%	7%	9%
Boston region MPO	69%	17%	8%	5%



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## Proposed Shuttles

- Survey and Route development
- Shuttle routes
- Capital and operating costs
- Summary



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## Proposed Shuttles

- **Survey**
  - Sample size = 1,320.
  - Respondents sourced via the 128 Business Council's rider contact base: Chamber of Commerce, N-Squared Innovation Corridor, community groups, local employers, local developers, and elected officials
  - Sample not representative
  - Did not include stated preference questions to assess willingness to pay.
- **Route Development**
  - Connections to other modes and activity centers using survey O/D
  - Schedule, including hours of service and frequency
  - Accessibility
  - Reliable and consistent travel time



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## Proposed Shuttles: 4 Routes

Route	Service	Objective	Notes
<b>Newton Circulator</b>	<i>Proposed service:</i> 5:15 AM to 1 AM weekdays; 6:15 AM to 1 AM weekends <i>Frequency:</i> 30-45 minutes peak; 45 minutes off-peak and weekends	Provides connections to MBTA services	A 45-minute service offers moderate level of service. <b>Other service concepts to consider: coordination with the MBTA or micro-transit operations.</b>
<b>Needham Commuter</b>	<i>Proposed service:</i> 5:45 AM to 10:30 AM; 4:30 PM to 8:30 PM <i>Frequency:</i> 30-45 minutes variable to accommodate commuter rail schedule	Provides connection to Needham commuter rail line.	The schedule and frequency should pivot off of the commuter rail schedule
<b>Cambridge Express</b>	<i>Proposed service:</i> 5:45 AM to 12:45 AM, Monday-Sunday <i>Frequency:</i> 60 minutes	Daily service to Kendall Square and Central Square.	This is an important employment center for technology and research. <b>60-minute frequency does not offer a competitive service.</b>
<b>Boston Express</b>	<i>Proposed service:</i> 5:45 AM to 12:45 AM, Monday-Sunday <i>Frequency:</i> 60 minutes	Daily service to the South Boston Seaport District	This has the potential to be a heavily used route; the route would also provide connections to the MBTA at South Station, including the Red and Silver Lines.

**BETA**

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## Proposed Shuttles: Capital & Operating Costs

- Capital
  - 7 Terra Transit vehicles= **\$1.75 million**
  - 32 pax
  - Bike racks
  - ADA
- Operating
  - \$90/hour
  - Weekly = **\$ 67,000/week**

Alternative fuel vehicles should be considered for the system.

**BETA**

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## Proposed Shuttles: Summary

- Fare Structure
  - Key factor that influences ridership
  - The absence of a proposed fare structure makes it difficult to assess the likely long-term effectiveness of the shuttle program
  - Substantial capital and operating costs
  - Long-term commitment



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## Mode Share Goal

### Project Build Condition: Comparison of Existing Mode Share vs Robust Mode Share

Land Use	Private Vehicle		Transit		Walk/Bike	
	Existing	Robust	Existing	Robust	Existing	Robust
Residential	82%	60%	13%	<b>30%</b>	5%	10%
Office	88%	60%	7%	<b>30%</b>	5 %	10%

Notes: a) Based on 2010 US Census Journey-to-Work; b) based on strong use of the shuttle system

**While the “robust” shuttle can contribute to an increase in transit mode share, an increase of this magnitude (to 30%) is unlikely. Documentation on how this mode share goal can be achieved is not provided by the applicant.**



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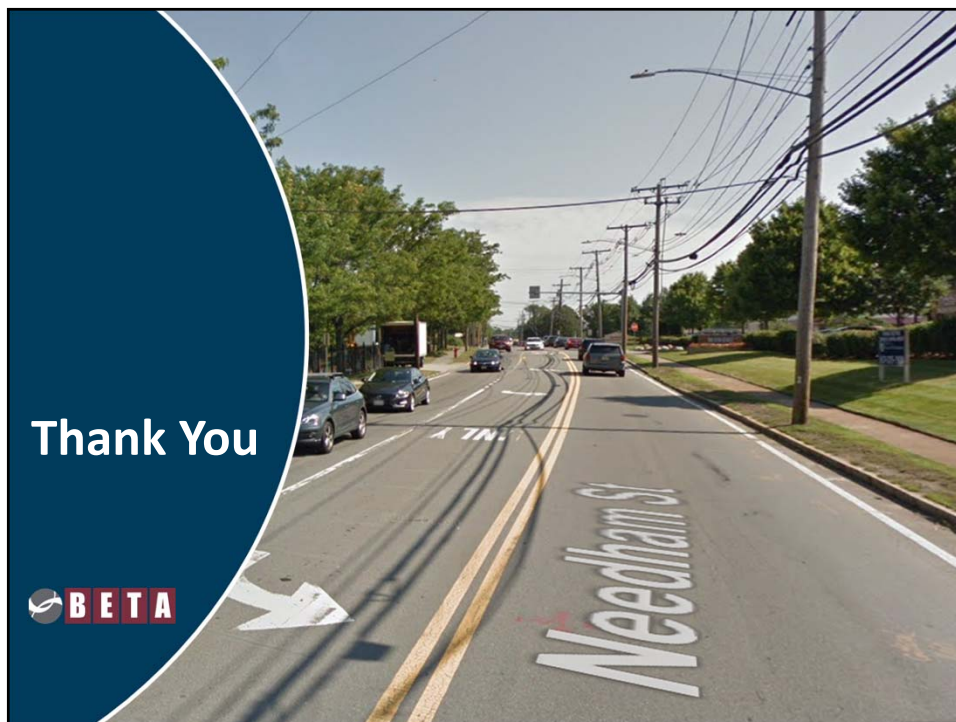


## Concluding Comments

- Fare structure
  - Insufficient information
- Consider collaboration with MBTA
- Transportation Network Companies
  - TNCs compete mainly with public transportation, walking, and biking, drawing customers from these non-auto modes based on speed of travel, convenience, cost and comfort
  - The applicant should prepare a thorough discussion and assessment of Transportation Network Companies (TNC) impact on shuttle bus ridership and the overall effectiveness of the proposed shuttle program
- Transportation Demand Management
  - Emergency Ride Home
  - Mobility Hub



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