Newton, Massachusetts

The Dunstan Residence West Newton Redevelopment

Transportation Engineering Peer Review
May 2020

TRANSPORTATION ENGINEERING PEER REVIEW OF RESPONSE TO COMMENTS

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Prepared by: BETA GROUP, INC.
Prepared for: City of Newton

May 2020

The BETA Group, Inc. (BETA) has reviewed the transportation Response to Comments Memorandum submitted by VHB dated May 11, 2020. The VHB responses addressed the initial transportation comments made in the BETA report dated April 2020. Comments to VHB responses are provided in blue text. For completeness, all comments and responses are provided below.

1.0 INTRODUCTION

PROJECT DESCRIPTION

Comment 1.1: The Traffic Impact and Access Study states in the Introduction on page 1 (and other sections in the report) that 244 apartments are proposed as part of the project. The Project Description on page 2, states the project will include 242 apartments. **Please confirm that 244 units is correct.**

Response: The Project has been reduced from 244 units and 12,141 sf to 234 units and 8,318 sf. A supplemental traffic generation memo has been prepared to reflect the changes.

BETA Comment: BETA agrees that the changes to the project's uses are relatively minor regarding transportation impacts and a full update of the full Traffic Impact and Access Study is not required. Comment addressed.

2.0 EXISTING CONDITIONS

TRAFFIC VOLUMES

Comment 2.1: Existing peak hour traffic volumes were shown on Figure 4, 5, and 6 in the study, however, there were some volume discrepancies between the figures and the TMC data sheets. For instance, one of the more significant volume discrepancies is the Washington Street westbound through movement at Auburn Street which is shown as 915 vehicles on Figure 4 – 2019 Exiting Conditions Weekday Morning Peak Hour Traffic Volumes but the TMC data shows 1,455 vehicles during the AM peak hour 7:30-8:30 AM. **Verify the existing volumes at intersection 1 through 4, 6, and 26 on Figures 4, 5, and 6.**

Response: The volumes in Figures 4 through 6 do not exactly match the TMC volumes in some locations due to adjustments that were made to balance counts between some intersections. In addition, there were some slight discrepancies in the TMC counts that were accounted for by adjusting the counts and are reflected in Figures 4 through 6. For example, during the weekday morning peak hour at the intersection of Washington Street and Auburn Street, the TMC counts broken into 15-minute intervals on the westbound approach showed 310 vehicles in the first 15-minute period, 715 vehicles in the second 15-minute period, 224 vehicles in the third 15-minute period, and 206 vehicles in the forth 15-minute period for a peak hour count of 1,455 vehicles during the peak hour in the westbound direction. Reviewing the volumes at this intersection and adjacent intersections resulted in the conclusion that the 715 vehicles recorded by the TMC during

the second 15-minute period was an error from when the TMC was transcribed, and it is more likely that the westbound direction saw 215 vehicles during that 15-minute period which would result in a peak hour count of 955 westbound vehicles during the weekday morning peak hour. When the volumes were balanced with the upstream intersections at Prospect Street and Perkins Street, the westbound approach volume was adjusted from 955 vehicles to 915 vehicles, which is what is shown in Figure 4.

BETA Comment: Comment addressed.

Comment 2.2: The site and associated driveways are not provided on any of the volume figures. **Show the site, site driveways and associated volumes on all traffic volume figures.**

Response: The 2019 Existing Conditions, 2026 No Build Conditions, and 2026 Build Conditions traffic volume networks include the intersections of Washington Street at Dunstan Street, Washington Street at Kempton Place, and Watertown Street at Dunstan Street. Kempton Place only serves the site and therefore acts as a site driveway under Existing and No Build conditions. The other site driveways were not included in the figures because under Existing and No Build conditions they either generate negligible traffic volumes or feed directly into Dunstan Street or Kempton Place. While the specific site-generated volumes for each driveway on-Site were not included in TIAS submission, the driveway volumes broken down by land use were provided to the peer reviewer by VHB on March 13, 2020 and are included in the Attachments to this memorandum for reference.

BETA Comment: Comment addressed.

Comment 2.3: Upon review of the ATR data provided in the Appendix and the Traffic Volume section of the report there are inconsistences between Table 1 – Observed Traffic Volumes and the rest of the ATR data. **The Saturday daily volume for Watertown Street should be 6,980 vehicles per day in the table. Also, the Saturday K-factors need to be revised to 8.7% for Washington Street and 8.3% for Watertown Street.**

Response: Table 1 – Observed Traffic Volumes has been updated and is provided below. The daily volumes were rounded to the nearest hundred vehicles.

Table 1 Observed Traffic Volumes

Location	Weekday Daily [a] Vol.	Weekday Morning Peak Hour Vol. [b]	Weekday Morning Peak Hour K Factor [c]	Weekday Morning Peak Hour Dir. Dist. [d]	Weekday Evening Peak Hour Vol.	Weekday Evening Peak Hour K Factor	Weekday Evening Peak Hour Dir. Dist.	Saturday Daily Vol.	Saturday Midday Peak Hour Vol.	Saturday Midday Peak Hour K Factor	Saturday Midday Peak Hour Dir. Dist.
Washington Street				EB			EB				WB
west of Dunstan Street	12,100	1,100	9.1%	56%	1,070	8.8%	55%	8,900	775	8.7%	56%
Watertown Street				EB			WB				EB
west of Davis Avenue	8,500	625	7.3%	52%	685	8.1%	51%	7,000	580	8.3%	52%

Source: VHB; Based on automatic traffic recorder (ATR) counts conducted in April 2019.
a Average Daily Traffic (ADT) volume, expressed in vehicles per day
b Peak period traffic volumes expressed in vehicles per hour
c Represents the percent daily traffic which occurs during the peak hour
d Directional distribution of peak hour traffic
Note: Peak hours do not necessarily coincide with the peak hours of turning movement counts.

BETA Comment: Comment addressed.

VEHICLE SPEEDS

Comment 2.4: Verify that the posted speed limits are consistent with the regulatory speed limits assigned by MassDOT.

Response: The regulatory speed limits assigned by MassDOT for Washington Street in both directions approximately between Prospect Street and just east of Chestnut Street is 25 miles per hour (mph), and approximately between just east of Chestnut Street and Jewett Street in Newton Corner is 35 mph. The posted speed limits along Washington Street in the study area are consistent with the regulatory speed limits, with the posted speed limit changing from 25 mph to 35 mph just east of Chestnut Street.

The regulatory speed limits assigned by MassDOT for Watertown Street in both directions approximately between Washington Street and Eden Avenue is 25 mph and approximately between Eden Avenue and just west of Walnut Street is 35 mph. The posted speed limits along Watertown Street in the study area are mostly consistent with the regulatory speed limits assigned by MassDOT, except for an approximately 300-foot stretch between Eden Avenue and Davis Avenue where the regulatory speed limit is 35 mph, but the posted speed limit is 25 mph. The existing speeds recorded via ATR and presented in Table 2 of the TIAS were collected on this segment of Watertown Avenue between Eden Avenue and Davis Avenue, and therefore Table 2 in the TIAS lists the posted speed limit as 25 mph on this stretch of roadway while the regulatory speed limit is 35 mph. The peer reviewer noted in the Transportation Engineering Peer Review that based on the ATR data, along Watertown Street between Eden Avenue and Davis Avenue, the average speed is 29 mph and the 85th-percentile speed is 34 mph, which are both above the posted speed limit of 25 mph and that highlights a speed issue along Watertown Street. However, while the average and 85th-percentile speeds are both above

the posted speed limit along this segment of roadway, they are both below the regulatory speed limit of 35 mph for this segment. The regulatory speed limits assigned by MassDOT are included in the Attachments to this memorandum. It should be noted that the regulatory speed limits were assigned by MassDOT in 1972 and that as of March 2017, the City of Newton has adopted a default speed limit of 25 miles per hour on all roadways in the City that do not have a posted speed limit.

BETA Comment: Comment addressed.

Comment 2.5: **Revise Table – Existing Traffic Speed Summary to reflect the correct Watertown Street ATR location.**

Response: Table 2 – Existing Traffic Speed Summary has been updated and is provided below:

Table 2 Existing Traffic Speed Summary

Location	Speeds (mph)		
	Posted	Ave [1]	85th [2]
Washington Street, west of Dunstan Street	35	EB: 34 WB: 32	EB: 39 WB: 38
Watertown Street, west of Davis Avenue	25	EB: 29 WB: 29	EB: 34 WB: 34

Based on automatic traffic recorder counts conducted on April 11 and April 27, 2019
1 Average (50th percentile) speeds.
2 85th percentile speeds.

BETA Comment: Comment addressed.

Crash History

Comment 2.6: Crash data for the study area intersections were obtained from MassDOT between 2013 and 2017. Incident occurrence was also compared to the volume of traffic through each intersection to determine significance and whether potential safety problems exist. Accordingly, crash rates were calculated for each study area intersection and compared with the district-wide (MassDOT District 6) average of 0.52 MEV and 0.71 MEV for unsignalized and signalized intersections, respectively. Based on this evaluation, the following six study area intersections were noted to have experienced crash rates that exceeded the district-wide averages.

- Location 9 - Washington Street/Highland Street
- Location 10 - Washington Street/Waltham Street/Watertown Street
- Location 11 - Washington Street/Chestnut Street
- Location 26 - Webster Street/Elm Street
- Location 27 - Webster Street/Cherry Street
- Location 28 - Waltham Street/Webster Street

Provide a timeline for the intersection improvements planned at the high crash locations 9-11.

Response: Construction is ongoing as of March 27, 2020, on the West Newton Square Village enhancement project that includes locations 9-11 listed above. Construction is expected to be completed within a year.

BETA Comment: Comment addressed.

Comment 2.7: Of these high crash rate locations, improvements are not planned for some of the intersections (locations 26, 27, and 28). **The Applicant should coordinate with the Newton Director of Transportation Operations to identify safety improvement measures that should be considered.**

Response: Improvements at locations 26, 27, and 28 may be considered in the future as the context of the complete project mitigation becomes more clear.

BETA Comment: Road Safety Audits should be considered for locations 26, 27, and 28.

Highway Safety Improvement Program

Comment 2.8: In accordance with MassDOT Transportation Impact Assessment Guidelines, an RSA shall be conducted in the place of a safety review for those locations considered HSIP-eligible. Accordingly, an RSA or Pedestrian Assessment, pending a conversation with MassDOT, should be completed during the early project stages to help identify appropriate improvements. The intersections of Washington Street/Highland Street, Washington Street/Waltham Street/Watertown Street, and Washington Street/Chestnut Street are high crash locations and are MassDOT HSIP eligible, however, they are currently being redesigned. **The intersection of Washington Street/Davis Court/Jacob's Auto Sales Driveway is a HSIP and located near the site, therefore, considerations should be given to conduct an RSA or Pedestrian Assessment at this location before the mitigation measures can be finalized.**

Response: Our understanding is that a future development is being contemplated at this location and if so we would anticipate this work being incorporated into that proposal.

BETA Comment: We encourage the Applicant to coordinate with the City on the issue as we are not aware of potential mitigations from other projects being considered (also see Comment 5.4).

Pedestrian and Bicycle Facilities

Comment 2.9: **The following existing conditions should be noted regarding pedestrian and bicycle facilities:**

- There is currently no sidewalk or curb on either side of Dunstan Street in the segment that is designated a private road north of Washington Street.
- There is no sidewalk or curb on the east side of Dunstan Street in the segment that is designated a public road.
- The sidewalk and curb on the west side of Dunstan Street in the segment that is designated a public road is in poor condition.
- The sidewalk segment over Cheesecake Brook on the east side of Dunstan Street is in poor condition.
- The asphalt sidewalk and granite curb along the project frontage on the north side of Washington Street is in poor condition.
- The concrete sidewalk and granite curb along the project frontage on the north side of Washington Street is in fair condition, except in front of building #1149, which has newer concrete sidewalk and granite curb.
- Pedestrian ramps are missing or are non-ADA compliant along the project frontage on the north side of Washington Street.
- Pedestrian ramps and pedestrian signals are non-compliant at several study intersections.
- Many of the pedestrian signal heads and pushbuttons are inconsistent at each intersection. At least three different types of pedestrian signal heads were observed within the study area and multiple different pushbuttons were observed.
- The pedestrian pushbutton on the northeast corner of the Washington Street at Elm Street intersection does not work.

Response: The preceding existing pedestrian and bicycle accommodations have been noted. It should be noted that the Project will be adding a sidewalk on the east side of Dunstan Street between Washington Street and Cheesecake Brook where one does not currently exist and will be reconstructing the sidewalk on the north side of Washington Street in front of the Site. In addition, the pedestrian accommodations along Washington Street between Elm Street and Chestnut Street, such as sidewalks, crosswalk ramps, crosswalks, and pedestrian signal equipment, will be reconstructed as part of the West Newton Square Village enhancements that are currently under construction.

BETA Comment: Please confirm that the project will be repaving both sides of the portion of Dunstan Street designated as a private roadway. The Applicant should consider upgrading the sidewalk segment on the east side Dunstan Street over Cheesecake Brook, which is in poor condition. This will benefit both project residents and well as the general public.

PUBLIC TRANSPORTATION

Comment 2.10: **The existing ridership levels for MBTA Bus Routes 553, 554, and 170; and the West Newton Commuter Rail Station for weekday peak periods should be provided. Boarding and alighting information at each bus stop near the project site and West Newton Station should be provided.**

Response: A separate transit analysis report has been completed and is included in the Attachments to this memorandum. The transit analysis report includes the existing ridership levels and boarding and alighting information for the MBTA services near the Site.

BETA Comment: Comment addressed.

Comment 2.11: **It should be noted that no bus shelters are provided at any of the MBTA bus stops in the vicinity of the project.**

Response: The Applicant is committed to work with the city and MBTA to install a bus shelter at the bus stop closest to the site.

BETA Comment: The Applicant should consider providing a bus shelter on each side of Washington Street.

Comment 2.12: The TIAS on page 18 states that the West Newton Station is approximately ¼ mile west of the site and approximately a five-minute walk to the west side of the project site. **The actual walking distance appears to be closer to ½ mile and approximately a 10-minute walk.**

Response: It has been noted that the actual walking distance from the Site to the commuter rail station is closer to ½-mile than ¼-mile and that the walking time is approximately 10-minutes.

BETA Comment: Comment addressed.

3.0 3.0 FUTURE CONDITIONS

3.1 ANALYSIS YEAR

Comment 3.1: **While we concur that the seven-year design horizon is considered to be the typical future time period to evaluate traffic conditions in Massachusetts, the Applicant should confirm that the proposed development will not be phased and the full build-out of the project is expected to be completed by 2026. Should the Dunstan Development be phased and/or not completed by 2026, then the project's impacts will need to be evaluated under other design horizons.**

Response: It is expected that the Project will be constructed in one phase and will be fully built-out by 2026.

BETA Comment: Comment addressed.

SITE-SPECIFIC TRAFFIC GROWTH

Comment 3.2: The following two projects were not included in the list of other site-specific projects in the TIAS:

- 15 Riverdale Avenue Project. Proposed 204 dwelling units and 5,000 SF commercial space located near Watertown. Currently going through Comprehensive Permit process.
- Sunrise Assisted Living and Memory Care Facility, 431 Washington Street. Project is currently under construction and will provide 85 suites.

These two projects should be considered for their potential traffic impact on the study roadways and intersections. No-Build and Build traffic volumes and analysis results should be revised if necessary.

Response: The site-specific projects included in the TIA were based on a list of projects provided by the City of Newton Planning Department in April 2019 in the West Newton, Newtonville, Auburndale, and Nonantum neighborhoods. The Sunrise Assisted Living and Memory Care Facility and the 15 Riverdale Avenue project were not provided in the list of projects to include by the City of Newton Planning Department and therefore was not included in the TIA.

However, the traffic impact assessments have been reviewed for both projects to determine the potential impacts on the study area intersections. The TIA for the Sunrise Assisted Living and Memory Care Facility (VHB, March 2017) estimates that 5 trips and 7 trips will be generated from the west on Washington Street during the weekday morning and weekday evening peak hours, respectively. Since this project is over 1.5 miles east of the site, it is expected that the majority of those trips will turn onto or off-of Washington Street prior to reaching the site, resulting in very few additional trips added to Washington Street through the study area. Similarly, the TIA for 15 Riverdale Avenue (MDM, December 2019) estimates that 32 trips and 31 trips will be generated from the west on California Street during the weekday morning and weekday evening peak hours, respectively, and 9 trips will be generated from the south on Bridge Street during both the weekday morning and weekday evening peak hour. Since this project is over two miles north of the site, it is expected that the majority of those trips will turn onto or off-of other roadways before reaching the site, resulting in few additional trips added to the study area.

In addition to the site-specific growth included in the TIA, a general background growth rate of 0.5-percent per year was applied to the 2019 Existing traffic volumes to generate the 2026 No-Build and Build traffic volumes. This growth rate was applied to account for general traffic growth on the local roadway network and to account for additional site-specific projects that were not specifically included. Therefore, the minimal traffic volumes that will be generated by Sunrise Assisted Living and Memory Care Facility and by the 15 Riverdale Avenue project through the study area are incorporated into the 0.5-

percent annual growth rate and are accounted for in the No-Build and Build traffic volumes.

BETA Comment: Comment addressed.

ROADWAY IMPROVEMENTS

Comment 3.3: BETA concurs with the methodology of including/excluding these roadway improvement measures in future traffic-volume conditions.

Response: No response is required.

PROJECT-GENERATED TRIPS

Comment 3.4: Parking will include two underground parking garages with 286 spaces, five surface off-street spaces, and 11 on-street spaces (six on Kempton Place and five on Washington Street). **Please clarify if the 11 on-street parking spaces are included in the overall parking supply for the project.**

Response: Since Kempton Place will be a private way and Washington Street will be a public way, the five on-street parking spaces along Kempton Place are included in the overall parking supply for the project while the five on-street parking spaces along Washington Street are not included in the overall parking supply for the project. The overall parking supply for the project consists of 294 parking spaces (284 spaces in the two underground garages, five on-street (Kempton Place) surface spaces) and five existing spaces behind 1149 Washington Street.

BETA Comment: Comment addressed.

EXISTING SITE-GENERATED TRAFFIC

Comment 3.5: No traffic turning movement counts were conducted for the driveway serving the Eastern Insurance office building at 1149 Washington Street which will remain as part of the project. **Weekday peak hour traffic volumes should be estimated to determine the existing vehicular activity for this building and level of office space occupancy determined. The estimated vehicle trips for the office building should be added to Table 4 Existing Site Trip Generation. However, because these uses will remain, they should not be included in the total new vehicle trips in Table 8 Project-Generated Peak-Hour Vehicle Trips by Use.**

Response: According to the ITE *Trip Generation 10th Edition* publication, and using the average rate for peak hour trips generated by for an office building, the 8,222-square-foot office building at 1149 Washington Street would generate approximately 10 vehicle trips (8 entering/2 exiting) during the weekday morning peak hour, 9 vehicle trips (8 entering/1 exiting) during the weekday evening peak hour, and 4 vehicle trips (2 entering/2 exiting)

during the Saturday midday peak hour at occupancy. Based on our observations and information from the Applicant, the office building is not at full occupancy, so the trip generation estimations would likely be lower in reality and therefore the average rates provide a more accurate representation of the office use than the regression equations.

The trips generated by 1149 Washington Street were not included in Table 4 or Table 8 in the TIA because the office building itself is not expected to be impacted by the Project and therefore the level of trips generated by the office building is expected to be the same with or without the Project. However, the Project will affect the surface parking lot of 1149 Washington Street, reducing the size of the parking lot from 20 parking spaces to 5 spaces. To supplement this loss of parking, employees and visitors of 1149 Washington Street will have access to the proposed parking garage under Buildings 1 and 2. While the starting/ending points for some trips generated by 1149 Washington Street may shift with the Project in place, this is only expected to be a handful of trips due to the low level of trips generated by the office buildings and due to the fact that the amount of trips generated is not expected to change.

BETA Comment: Comment addressed.

Unadjusted Project-Generated Traffic

Comment 3.6: It is noted that some types of retail stores and fast-food restaurants may generate more peak hour vehicle trips than are estimated using the shopping center land use. **The Applicant should identify if these type of commercial land uses will be considered for the project.**

Response: While at this time it is not known what the specific businesses will occupy the retail on-site, the uses are expected to be small-scale businesses (2,000 sf on average) that attract more local customers than regional customers. The businesses on this site will likely not include high-generating traffic uses such as fast food restaurants or big-box stores. It should also be noted that none of the businesses will include a drive-through, which would generate more vehicle trips than a business without a drive-through.

BETA Comment: Comment addressed.

Comment 3.7: **The following changes should be made to Table 5: Project Trip Generation – New Unadjusted Vehicle Trips in the TIAS:**

- Because the R-squared value is less than 0.75 for the Residential Weekday Morning, Weekday Evening, and Saturday Daily, the regression formula should be used to calculated trips instead of the average rate. Therefore, these trips should be changed from 82 to 88, 105 to 107 and 1,158 to 1,198, respectively.
- The Total New Unadjusted Vehicle Trips for Weekday Morning should be changed from 140 to 240.

Response: While the R^2 values are below 0.75 for the residential land use during some time periods, the regression equations were used for all periods to calculate the site generated vehicle trips because there are more than 20 data point provided for the mid-rise residential land use code in the ITE Trip Generation Manual. As illustrated in Figure 4.2 of the ITE Trip Generation Handbook, it is applicable to use the fitted curve equation when there are more than 20 data points for a land use, regardless of the R^2 value. It is correct that the Total New Unadjusted Vehicle Trips for the weekday morning should state 240 vehicles instead of 140 vehicles. New traffic generation based on revised program results is 234 trips (unadjusted) during the weekday morning peak hour.

BETA Comment: Comment addressed.

Comment 3.8: In Table 5: Project Trip Generation – New Unadjusted Vehicle Trips in the TIAS, the Retail trips are based on the regression equations which result in significantly higher trips (particularly for Daily Weekday and Saturday) than trips calculated using average rates. It is noted that the actual number of trips generated by the retail uses may be higher or lower than what is presented in the TIAS. **It is important to note that greater accuracy in estimating trips generated by the retail component of the project cannot be made until specific retail uses are identified.**

Response: The regression equations were used to estimate the retail-generated trips instead of the average rates based on the methodology illustrated in Figure 4.2 of the ITE Trip Generation Handbook. While using the regression equations do result in a higher level of trip generation than the average rates, it provides a more conservative estimate of the number of trips expected to be generated. As stated in the response to Comment 3.6, the specific retail uses are not expected to be known until tenanting of the project starts. However, given that the average retail store is estimated at 2,000 sf, the Project is not expected to contain retail uses that are known as high generators, such as fast food restaurants with drive throughs or big-box stores, the retail trip generation estimate presented in the TIAS is considered to be an accurate representation based on the amount of information currently available.

BETA Comment: Comment addressed.

Mode Share Splits

Comment 3.9: The US Census Bureau recently released 2018 data (January 23, 2020). At the meeting on February 25, 2020 with City, Applicant, and VHB, **BETA requested that VHB evaluate mode share with the new data.** In addition, **BETA requested mode share be reviewed for the project census block.** VHB provided mode share comparison in an email dated March 6, 2020. The results showed that the transit mode share for Newton overall increased from 12% (not including work at home trips) to 13%, but the mode share for the project census block is only 10%. VHB suggested continuing to use 12% transit mode share for the residential portion of the project. BETA acknowledges that the 12% transit mode share is reasonable to use for the analysis, and there would be no significant differences between applying 10% or 13% transit mode share. It is also noted that due to Transportation Demand Management strategies proposed as part of the project, the

transit mode share may increase above 13% in the future, but the 12% is reasonable for analysis purposes.

Response: No response is required.

Comment 3.10: It is noted that project mode shares shown above do not include persons who work at home (9.5% in Newton). The TIAS removed the work at home residents from the mode share equation. This presents a conservatively high share for the other modes. BETA finds this methodology to be reasonable.

Response: No response is required.

Pass-By Trips

Comment 3.11: **Change Grove Street to Washington Street in Pass-By Trips text on page 40 of the TIAS.**

Response: It is correct that the text in the Pass-By Trips section on Page 40 of the TIAS should say "Washington Street" instead of "Grove Street". This has been updated in the supplemental traffic generation memo dated May 11, 2020.

BETA Comment: Comment addressed

4.0 Transportation Operations Analysis

Signalized Intersection Capacity Analysis

Comment 4.1: The TIA stated that the analysis was done based on the methodology and procedures set forth in the Highway Capacity Manual (HCM). Based on a review of the capacity analysis worksheets provided in the Appendix, which match the capacity analysis tables, the Synchro analysis data sheets do not show HCM data output. **Provide HCM 2010 analysis results.**

Response: The intersection capacity analyses were performed using Synchro software. Within the Synchro software, the results of the intersection capacity analyses can be based on several different methodologies, including the HCM method (under various editions) and the percentile delay method. While the unsignalized intersection capacity analysis results reported for the Project are based on the HCM 2010 methodology, the signalized intersection capacity analysis results reported for the Project are based on the percentile delay methodology, which is what is included in the Appendix to the TIAS. The percentile delay method was used for signalized intersections instead of the HCM method because the HCM 6th Edition and HCM 2010 methodology can only be used to report intersections with typical geometric approaches that follow standard NEMA timing and phasing (as outlined on Pages 15-1 and 16-1 of the Synchro Studio 10 User Guide). Since not all signalized study area intersections have typical geometry or follow standard NEMA timing and phasing, the HCM 6th Edition and HCM 2010 methods cannot be used to produce results for all signalized study area intersections. In order to provide results based on a

consistent methodology for all of the signalized intersections, the percentile delay method is used for all reporting instead. It should be noted that using the percentile delay method to report signalized intersection capacity analysis results is consistent with the analyses completed for several other recent development projects in the City of Newton, including Washington Place, Riverside, and the Northland Newton Development.

BETA Comment: Comment addressed.

Comment 4.2: Based on conversations with the City, they are considering changes to the signal phasing at the intersection of Washington Street and Lowell Avenue by adding a 4-section signal head to create a lead Washington Street westbound movement. It is understood that the Applicant is aware of this change, but it was not included in the No-Build and Build analyses. **Provide analysis results so the City can review the impacts of adding the lead westbound movement.**

Response: Intersection capacity analyses at the intersection of Washington Street and Lowell Avenue have been updated to reflect the modification of the signal to add a lead westbound left-turn movement. A summary table of the intersection capacity analysis results and the capacity worksheets are included in the Attachments to this memorandum. As shown in the summary table, with the revised signal timings the intersection is expected to operate at an overall LOS E during the weekday morning and weekday evening peak hours and at an overall LOS D during the Saturday midday peak hour under the 2026 No Build and 2026 Build Conditions. The intersection is expected to maintain overall LOS during all peak hours with the addition of the Site-generated traffic.

It should be noted that based on conversations with the City of Newton Department of Public Works, these improvements are not expected to be implemented in the near future due to the additional signal heads and posts that are required to add the leading westbound left-turn movement. Therefore, the capacity analysis results are included for informational purposes only and the analyses provided in the TIA represent the actual conditions that are expected to be in place under the 2026 No Build and 2026 Build Conditions.

BETA Comment: Comment addressed.

Comment 4.3: Based on a review of the capacity analysis worksheets provided in the Appendix, it was noted that at the Washington Street and Walnut Street intersection, an exclusive pedestrian phase was included in the No-Build and Build analysis, but the proposed plans dated December 7, 2018 show a concurrent ped phase. **Clarify this inconsistency.**

Response: The No-Build and Build analyses at the intersection of Washington Street and Walnut Street are based on the PS&E submission dated April 5, 2019. These plans are more recent than the December 7, 2018 plans and include an exclusive pedestrian phase at the intersection. The April 5, 2019 signal plans are included in the Attachments to this memorandum.

BETA Comment: Comment addressed.

Signal Warrant Analysis

Comment 4.4: Warrant 1 - Eight-Hour, Warrant 2 – Four Hour, and Warrant 3 – Peak Hour were examined. Signal warrant criteria, which was based on future build volumes, was not met for any of the three warrants. The results of Warrant 1 were an assumption based on the four hours of traffic volume data collected by turning movement counts. The reason being that if the 4-hour warrant criteria were not met with the peak four hours of a day, then the volumes for the remaining hours would be lower and the 8-hour warrant would not meet. **This is a reasonable assumption; however, BETA does not recommend including Warrant 1 in the summary table unless at least eight hours of traffic volume data were collected at the intersections which is typically done in preparation of a signal warrant analysis.**

Response: This comment has been noted.

Transit Operations

Comment 4.5: The TIAS does not include an analysis of the impact of project-generated person trips on transit service. **An analysis should be provided that shows the distribution of project walk to transit trips and a capacity analysis of Build conditions during the weekday peak periods on the MBTA bus and commuter rail service. The capacity results should be compared to 2026 No-Build results.**

Response: A separate transit analysis report has been completed and is included in the Attachments to this memorandum.

BETA Comment: The analysis and results are acceptable. Comment addressed.

5.0 Proposed Mitigation and Site Access

Proposed Signal Timing Mitigation and Operations with Mitigation

Comment 5.1: Although the eastbound movement during the PM peak hour would improve from LOS E to LOS D at the intersection of Washington Street at Prospect Street, the westbound movement would continue to operate at LOS F. **Additional measures to improve traffic operations at this intersection should be considered.**

Response: Improvements at Washington Street and Prospect Street may be considered in the future as context of the complete project mitigation becomes more clear.

BETA Comment: Signal timing adjustments can be considered. Comment addressed.

Comment 5.2: As noted in Section 4.1.1, the Washington Street at Auburn Street would operate at an overall LOS F during the Build PM peak period with additional movements operating at LOS F during the AM peak hour. **Considering signal timing adjustments were proposed**

at the adjacent signal of Washington Street/Prospect Street, signal timing adjustments should be provided to improve operations at the Washington Street at Auburn Street intersection.

Response: Improvements at Washington and Auburn Street may be considered in the future as context of the complete project mitigation becomes more clear.

BETA Comment: Signal timing adjustments can be considered. Comment addressed.

Comment 5.3: In addition, as noted in Section 4.1.1, the Washington Street eastbound through movement at the Washington Street at I-90 Eastbound On-Ramp intersection, under MassDOT jurisdiction, would continue to operate at LOS F under Build conditions. **Signal timings adjustments should be considered for this intersection.**

Response: Improvements at Washington Street and I-90 Eastbound on-ramp may be considered in the future as context of the complete project mitigation becomes more clear.

BETA Comment: Signal timing adjustments can be considered. Comment addressed.

Comment 5.4: As noted in Section 2.2.4, the following intersections within the study area are part of an HSIP cluster and in close proximity to the site.

- Location 12 - Washington Street/Davis Court/Jacob's Auto Sales Driveway
- Location 18 - Watertown Street/Eden Avenue
- Location 19 - Watertown Street/Davis Court

Consideration should be given to including pedestrian safety improvements at these intersections.

Response: Improvements at HISP cluster may be considered in the future as context of the complete project mitigation becomes more clear.

BETA Comment: Project pedestrians will often walk through the intersection of Washington Street/Davis Court/Jacob's Auto Sales Driveway. Sidewalk and pedestrian ramp improvements should be considered at this location (also see Comment 2.8).

Pedestrian and Bicycle Facilities

Comment 5.5: The Newton Street Design Guide (June 2018) requires a five-foot wide sidewalk pedestrian zone and an additional two feet of width to accommodate amenities such as trees and streetscape elements on local streets. The site plans show that most proposed sidewalks will meet these guidelines except for the Dunstan Street sidewalk south of the garage driveway (four feet wide sidewalk) and Kempton Place east side fronting the Auto glass building. **Confirm that all sidewalks will provide a minimum five feet clear effective width and ensure that the design of the sidewalks along Washington Street include a**

furniture zone flexible enough to incorporate bike racks that provide convenient access to the retail businesses.

Response: All proposed sidewalks will provide a minimum five-feet clear effective width and the sidewalk along Washington Street will include a furniture zone of at least five feet that is flexible enough to incorporate bike racks. Approximately eight bike racks will be included along the Washington Street sidewalk furniture zone.

BETA Comment: Comment addressed.

Comment 5.6: **The minimum offsets for sidewalk amenities and furniture shown in the Newton Street Design Guide should be followed.**

Response: The minimum offsets for sidewalk amenities and furniture as shown in the Newton Street Design Guides have been followed.

BETA Comment: Comment addressed.

Comment 5.7: The Dunstan project proposes to reconstruct the sidewalk along the site frontage consistent with the Washington Street Vision Plan. It also recommends that sidewalk improvements at the intersections of Washington Street at Kempton Place and Dunstan Street not preclude the installation of future signal equipment. **Identify if signal equipment is being considered in the future at the intersections of Washington Street/Kempton Place and Washington Street/Dunstan Street.**

Response: Signal equipment is not currently being considered in the future at the intersections of Washington Street at Kempton Place and Washington Street at Dunstan Street. As noted in the TIAS, neither of these intersections are expected to warrant a traffic signal under the 2026 Build Conditions. However, the design of each intersection will not preclude the ability to install signal equipment at some point in the future if the traffic volumes do one day meet the thresholds to warrant signals at either of these locations.

BETA Comment: Comment addressed.

Comment 5.8: **A crosswalk should be provided across the Dunstan Street garage entrance.**

Response: A crosswalk is provided across the Dunstan Street garage entrance and is reflected on the updated site plans dated April 28, 2020.

BETA Comment: Site Plan C-3.0 dated April 28, 2020 does not show the crosswalk (also see Comment 5.13).

Comment 5.9: Four bicycle racks to accommodate 32 bicycles are shown along Washington Street on the Site Materials sheet L1.1. This meets the zoning requirement 5.1.11 for 29 bicycles. **The building site plans show a total of 455 bicycle parking spaces in the garages. Bicycle**

parking areas are shown in the southeast corners of both garages and both levels. Verify that these areas will accommodate 455 bicycles to match the building site plans.

Response: These areas identified in the parking garages will be designed to accommodate 455 bicycles as shown on the site plans.

BETA Comment: Comment addressed.

Comment 5.10: **Will residents of Building 3 and employees of 1149 Washington Street be allowed to use the open space between Buildings 2 and 3? Will residents of Buildings 1 and 2 have access to the open space at Building 3? If so, will they have access through Buildings 3?**

Response: The open space between Buildings 1 and 2 will be open to the public and therefore will also be open to residents of Buildings 3 and employees of 1149 Washington Street. Residents of buildings 1 and 2 will also have access to the open space at Building 3. They will have access to the space through a key fob.

BETA Comment: Comment addressed.

Comment 5.11: No crosswalks are shown across Kempton Place between Buildings 2 and 3. **A crosswalk should be considered to provide pedestrian access between the two buildings if pedestrian crossings are anticipated.**

Response: The street profile does not allow for a crosswalk at this location due to the slope on Kempton Place; however, pedestrians needing to cross Kempton Place can use the crosswalk provided at Washington Street or the raised profile along Brook Street.

BETA Comment: Comment addressed.

Comment 5.12: **Will the open spaces be accessible by the public?**

Response: The courtyard between Buildings 1 and 2 and the boardwalk along Cheesecake Brook will be accessible to the public.

BETA Comment: Comment addressed.

Comment 5.13: The site plan and Site Detail 1 Plan show crosswalks with two lines that are eight feet wide. **Crosswalks should use continental striping and be nine feet wide according to the Newton Street Design Guide.**

Response: All proposed crosswalks have been updated to have continental striping and all crossings are at least nine feet wide, according to Newton Street Design Guide. The revised crosswalks are reflected in the updated site plans dated April 28, 2020.

BETA Comment: Crosswalks were shown across the two garage driveways on Kempton Place in the previous Site Plan C-2.0 dated November 25, 2019. Crosswalks should be

provided here, as well as at the garage driveway on Dunstan Street (also see Comment 5.8).

Comment 5.14: Will the proposed boardwalk along Cheesecake Brook be open to the public? Will it be accessible to people with disabilities?

Response: The proposed pedestrian way along Cheesecake Brook will be open to the public and will be accessible to people with disabilities.

BETA Comment: Comment addressed.

Comment 5.15: Provide a pedestrian ramp on the northeast corner of Washington Street and Dunstan Street.

Response: A pedestrian ramp is proposed on the northeast corner of Washington Street and Dunstan Street and is reflected in the updated site plans dated April 28, 2020.

BETA Comment: A companion pedestrian ramp should be considered on the northwest corner of Washington Street and Dunstan Street.

Proposed Site Access

Comment 5.16: Access to the project will be provided by four locations:

- One garage driveway on the east side of Dunstan Street at Building 1
- One garage driveway on the west side of Kempton Place at Building 2
- One garage driveway on the east side of Kempton Place at Building 3
- Brook Street – a private road proposed as part of the project that provides access to the rear of the project site and access between Dunstan Street and Kempton Place

Each of the garage driveways is shown as 24 feet wide, which meets zoning standard 5.1.7.D.

Response: No response is required.

Comment 5.17: Kempton Place and the private segment of Dunstan Street are shown as 22-foot wide two-way roadways and Brook Street is shown as a 20-foot wide two-way roadway. These are acceptable. All three roadways are shown with double-yellow centerlines. The Newton Street Design Guide indicates centerlines are required on streets with over 6,000 vehicles per day and over a 20-foot wide traveled. **The Applicant should consider removing the centerline on Brook Street.**

Response: A centerline has been included along Brook Street to inform motorists that the roadway carries two-way traffic and to be consistent with the centerline that is included on

Kempton Place. If requested by the City of Newton, the Applicant will remove the centerline on Brook Street.

BETA Comment: Comment addressed.

Comment 5.18: The Newton Street Design Guide recommends using permeable pavement. **Will permeable pavement be used for any portion of the project such as private roadways and surface on-street Parking?**

Response: Permeable pavers will be located within the furniture zone along the back of roadway curb along Washington Street, Dunstan Street, and Kempton Place.

BETA Comment: Comment addressed.

Comment 5.19: **Has the Newton Fire Department reviewed the site plan for emergency vehicle access?**

Response: The Newton Fire Department has reviewed the site plan for emergency vehicle access and has signed-off on the plans. The approved emergency vehicle access plans have been submitted to the Newton Planning Department.

BETA Comment: Comment addressed.

Comment 5.20: The Site Plan shows Brook Street as flush with the curb and sidewalk. It is shown on the plan as "(PUBLIC)". **Please confirm this is a PRIVATE Road. Additional signage and pavement markings may be required on Brook Street to indicate that the street is intended to be shared by vehicles, pedestrians and bicycles (woonerf). Speed advisory signs of 10 MPH should be considered. What is proposed to delineate the change from roadway to sidewalk (e.g. bollards)? Details should be shown as how the raised roadway transitions into Dunstan Street and Kempton Place. Provide details of the proposed sidewalk and boardwalk along Cheesecake Brook.**

Response: Brook Street will be a private road. The roadway will be flush with the sidewalk level and bollards will be placed to differentiate the roadway from the sidewalk. Paving materials will be consistent between the roadway and the sidewalk in order to create the sense that this will be a shared street. While no speed advisory signs are currently proposed along Brook Street, the roadway has been designed to meet City of Newton standards and the Applicant will consider the installation of speed advisory signs in the future. Details showing how the raised roadway transitions into Dunstan Street and Kempton Place are shown in the grading plan included in the revised site plans dated April 28, 2020, and details showing the proposed pedestrian area along Cheesecake Brook are also included in the revised site plans dated April 28, 2020.

BETA Comment: Comment addressed.

Comment 5.21: Site Details 1 shows a raised crosswalk. **Are any raised crosswalks proposed? A crosswalk should be considered between the project's courtyard and the north side of Brook Street.**

Response: No raised crosswalks are proposed on the Site. Brook Street will be flush at sidewalk-level between the project's courtyard and the north side of Brook Street and therefore no crosswalk will be necessary as the design allows for pedestrian crossings anywhere along Brook Street. See the response to Comment 5.20 on how Brook Street will be designed as a shared street.

BETA Comment: Comment addressed.

Comment 5.22: The garage driveways on Kempton Place are offset from one another. **Consider realigning the driveways across from each other to create a four-way intersection.**

Response: The design team has looked into creating a four-way intersection on Kempton Street at the garage driveways. However, due to design considerations of Buildings 2 and 3, a four-way intersection is not feasible at this location.

BETA Comment: Comment addressed.

Comment 5.23: **Provide cross sections for all roadways.**

Response: Typical cross-sections are included in the updated site plans that have been submitted to the City of Newton.

BETA Comment: Comment addressed.

Curbside and Service / Loading Activity

Comment 5.24: **Indicate where loading/drop-off/pick-up areas will be designated on Kempton Place and Dunstan Street. Will these areas be used for deliveries to the three buildings?**

Response: A pick-up/drop-off area has been added to the east side of Kempton Place adjacent to the Building 3 lobby and is reflected on the revised site plans dated April 28, 2020. Pick-up/drop-off operations and deliveries can use the designated pick-up/drop-off areas along Washington Street and Kempton Place. The pick-up/drop-off areas are located near the lobby entrances to all three buildings in order to provide ease of access for pick-up/drop-off passengers and loading activities.

BETA Comment: Comment addressed.

Comment 5.25: Per Newton Zoning, one off-street loading bay is required for the 12,140 feet proposed of commercial space. None are shown on the project site plan. **How will truck loading/deliveries occur for each building: on-street and garages? Are any truck loading docks proposed? Would truck deliveries for the retail stores along Washington Street**

use the two designated pick/drop-off areas? How will garbage trucks access each building?

Response: All truck loadings and deliveries for the retail space are expected to take place in the two designated pick-up/drop-off areas on Washington Street. While the total proposed square footage of retail on-Site will be 8,318 sf, that will be made up of individual retail spaces consisting of less than 2,500 square feet each. Due to the small sizes of each retail space, deliveries are expected to take place via box trucks and smaller vehicles and all loading operations are expected to be accommodated in the two designated pick-up/drop-off areas on Washington Street. Garbage for each building will be collected in garbage areas under each building and will be wheeled out to Kempton Place to be picked-up by a trash truck on designated garbage removal days.

BETA Comment: Comment addressed.

Comment 5.26: There is a loading area striped in the rear parking lot of the building 1149 Washington Street. **What is the intended use for this loading area and how would trucks maneuver in and out of this space?**

Response: The space is striped off from being used as a parking space as it is located directly across from the relocated existing dumpster. Trash vehicles will access the relocated existing dumpster the same way as they do under existing conditions.

BETA Comment: Comment addressed.

Transportation Network Companies (TNC) Operations

Comment 5.27: **Are the pickup/drop-off areas on Washington Street designated for TNC vehicles? The Applicant should explain why the proposed pickup/drop-off areas cannot be accommodated on-site.**

Response: The pick-up/drop-off areas on Washington Street will be designated for all pick-up/drop-off and loading activities, not specifically for TNCs. An additional pick-up/drop-off area has been added on Kempton Place adjacent to the Building 3 lobby and is included on the revised site plans dated April 28, 2020. While TNC operations will also take place on-Site, there is no way to prevent TNC drivers from dropping off passengers along Washington Street. Since these operations are expected to occur regardless of what precautions are put in place, pick-up/drop-off areas have been designated along Washington Street to ensure that a travel lane along Washington Street will not be blocked because of pick-up and drop-off operations. The pick-up/drop-off areas are located close to the building lobbies and will demarcated with signs to provide a convenient location for residents of each building. As stated in the response to Comment 5.28 below, there are currently five on-street parking spaces along this section of Washington Street and those five spaces will remain. The pick-up/drop-off areas will be created from addition curb space gained from closing several curb cuts along Washington Street.

BETA Comment: Comment addressed.

Comment 5.28: The proposed plan shows that approximately four on-street parking spaces would be eliminated on Washington Street in front of the project site to create two pickup/drop-off zones. **It is important to maintain on-street spaces in front of the proposed retail uses. Did the Applicant consider the importance of maintaining the spaces in front of the proposed retail uses?**

Response: Under existing conditions there are only five on-street parking spaces on the north side of Washington Street between Kempton Place and Dunstan Street due to the many curb-cuts that currently exist. The same number of on-street parking spaces available today are proposed in the future. The additional curb space created due to reducing the number of curb cuts is proposed to be used as a dedicated pick-up/drop-off areas in order to eliminate the potential of vehicles double-parking along Washington Street and blocking a lane of through traffic. This methodology of maintain the existing number of on-street parking spaces and designating additional curb space to pick-up/drop-off operations is consistent with the design of the currently-under construction Washington Place project on the corner of Washington Street and Walnut Street. In addition, it is expected that the retail demand parking will be accommodated in the underground parking garage below buildings 1 and 2.

BETA Comment: Comment noted. It is reasonable to assume that customers to the retail uses will also, and perhaps preferentially, use the on-street parking spaces on both sides of Washington Street and on Kempton Place.

Number of Parking Spaces Required

Comment 5.29: The proposed 291 off-street parking spaces for the project falls into the lower range of parking supply based on TOD guidelines (211 to 445 spaces). For the project to fall within the TOD range of parking spaces, the average space per dwelling unit would need to be below 1.0. A Transportation Demand Management (TDM) technique of "Unbundling" parking costs from rent/leases so that residents with vehicles will pay more to allow access to the parking garage is listed as a potential measure on page 76 of the TIAS. **Will the Applicant commit to this program which means some units would not have parking spaces?**

Response: The Applicant is proposing to provide one parking space per residential unit. The cost of the parking space will be unbundled from the rent/lease for the market-rate units and it will be included in the rent/lease of the affordable units.

BETA Comment: Comment addressed. Additional information on parking operations provided by Applicant in Dunstan East: Operation Memos, 5/6/20.

Comment 5.30: Using shared parking areas with different peak parking demands for land uses within a mixed-use development can reduce the total number of parking spaces required. **Would**

a shared-parking arrangement be provided in the garages to accommodate peaking parking demand for the mix of land uses on-site? (See comment 5.49).

Response: To simplify proposed operations and because only two different land uses are proposed on-Site, shared parking is not currently proposed with this Project. However, there is an opportunity to use the office parking (20 spaces) on nights and weekends for additional residential guest parking.

It should be noted that this assignment of parking spaces is consistent with the recommended parking guidelines outlined by the peer reviewer in the Transportation Engineering Peer Review. In that document, BETA noted that to follow the TOD parking guidelines, which encourage lower vehicle use near transit, the Site would need between 183 and 366 residential spaces, between 19 and 37 retail spaces, and between 9 and 42 office spaces for the existing commercial building at 1149 Washington Street. Based on the parking guidelines, the Project is expected to provide a level of parking consistent with the goals of the City of Newton without needing to have shared parking between residential and commercial uses.

BETA Comment: It is noted that there are three land uses proposed (residential, office, and commercial). We recommend using office parking spaces for additional residential guest parking on nights and weekends (also see Comment 5.49).

Comment 5.31: The office building at 1149 Washington Street currently has 20 parking spaces in it parking lot (with a calculated demand between 9 and 37 spaces). The site plan shows that the number of parking spaces in the lot will be reduced to five spaces. **Is it assumed that the five spaces in the lot will be reserved for visitors/customers of the office building? Will additional visitors and employees be directed to the Building 3 parking garage? Could they share spaces with the residences of Building 3?**

Response: There are currently 19 parking spaces at 1149 Washington Street, however we plan to provide 20 spaces. The intent is to reserve the remaining 5 spaces on the existing surface lot as well as reserving 15 spaces within the garage in order to maintain the existing parking count. In off hours, i.e. nights and weekends, the intent is to use those spaces as guest parking spaces for residential units.

BETA Comment: It is reasonable to assume that visitors to the office building would use the five spaces in the parking lot and/or the on-street spaces on Washington Street, versus parking in the garage. Is this the intent?

Comment 5.32: The site plan shows six on-street parking spaces on the west side of Kempton Place which is a private roadway. **Will these spaces be designated for specific users and time periods?**

Response: The spaces will be set aside as short-term parking spaces to cater to the retail customers.

BETA Comment: Based on an email from Mark Development, LLC on May 12, 2020, we understand that there are now five designated on-street parking spaces on

Kempton Place with the sixth space converted to a dedicated pickup/drop-off area. This change should be shown on the Site Plan.

Comment 5.33: **Will customers of the retail businesses fronting Washington Street have access to the parking garage below Buildings 1 and 2?**

Response: There will be 29 retail parking spaces provided in the garage below Buildings 1 and 2 for customers of the retail businesses fronting Washington Street and employees and visitors of the existing office building at 1149 Washington Street.

BETA Comment: It is noted that 15 parking spaces in the garage will be assigned to the office building.

Comment 5.34: The on-street parking spaces on Washington Street are public spaces. There are currently no parking restrictions in this area. **Does the Applicant plan to coordinate with the City to provide signage to regulate on-street parking?**

Response: The Applicant will work with and support the City of Newton if they decide to regulate on-street parking along this section of Washington Street. However, since the roadway is owned by the City of Newton, all parking regulations are controlled by the City and at this point there are no plans by the City to regulate on-street parking along this section of Washington Street.

BETA Comment: Comment addressed.

Parking Design and Layout

Comment 5.35: Based on the City of Newton Zoning Ordinance (Articles 5.1.8.B.1 and 5.1.8.B.2), parking stalls must be a minimum of 9 feet wide, and 19 feet deep for angle/perpendicular parking and 21 feet deep for parallel parking. The spaces in the parking garages are shown to be 18 feet long and 9 feet wide. This meets the City's minimum width requirement, but not the 19-foot depth requirement. This would require a Comprehensive Permit. There are three parallel spaces in Level P2 of Building 1 and 2 and one space on Level 1 that are 18 feet long and 9 feet wide. These do not meet the City's requirement of 21 feet long for parallel spaces. **Indicate if the 18-footlong parking spaces will be adequate to accommodate parking maneuvers.**

Response: The parking spaces have been adjusted to adequately accommodate parallel parking maneuvers based on the City of Newton's parking requirements and are reflected in the updated site plans dated April 28, 2020.

BETA Comment: Parallel parking space dimension addressed. The perpendicular parking spaces in the revised plans remain 18 feet long and will still require a Comprehensive Permit for not providing 19-foot long spaces.

Comment 5.36: **Will any of the spaces be designated for compact vehicles?**

Response: None of the parking spaces are currently designated for compact vehicles. Compact vehicle spaces may be added at a later date as the design develops.

BETA Comment: Comment addressed.

Comment 5.37: Will parking spaces be designated/assigned for residential, retail and offices uses?

Response: The parking spaces in the garages will be designated between residential use, retail, and office use. Of the 294 parking spaces 234 parking spaces will be designated for the 234 residential units, 29 parking spaces will be designated for retail use, 11 Guest Parking Spaces and the remaining 20 stalls for office use (1149 Washington Street).

BETA Comment: Comment addressed.

Comment 5.38: Will electric vehicle charging stations be provided?

Response: Ten percent of all spaces in the parking garages will include electric vehicle charging stations and subject to power availability, we are considering making 100% charging ready to allow for charging stations to be added in the future.

BETA Comment: Comment addressed.

Comment 5.39: Section 5.1.8.C.1 requires that 90-degree parking stalls in two-way traffic have a minimum maneuvering aisle width of 24 feet. The site plans show all aisle widths to be 24 feet wide and meet this requirement.

Response: No response is required.

Comment 5.40: The on-street parking spaces on Washington Street fronting the project are 21 feet long and 9 feet wide, which meets the City's requirement.

Response: No response is required.

Comment 5.41: In accordance with the City of Newton Zoning Ordinance (Article 5.1.8.B.3 and Article 5.1.8.B.4), accessible parking facilities should be incorporated within the site plan. Since the proposed development is proposing over 291 parking stalls, 3% of these spaces must be designated for the physically disabled. These specially designated stalls must be clearly identified and located nearest to the building's entrance. The disabled parking stalls must be a minimum of 12 feet wide and 19 feet long for angle/perpendicular parking and 24 feet long for parallel parking. The project site plans show 10 disabled designated spaces provided in the garages which meets the City's requirement. **Confirm that disabled spaces meet the City's dimensional requirements. It is noted that disabled on-street parking spaces on the west side of Kempton Place are 24 feet long and 13 feet wide and meet the requirements.**

Response: All disabled parking spaces meet the City's dimensional requirements. It should be noted that the disabled on-street parking space has been moved from Kempton Place to Washington Street. This is because the slope of Kempton Place has been revised to be more consistent throughout the roadway length instead of being flatter on the southern portion of the roadway closer to Washington Street and then steeper on the northern portion of the roadway closer to Brook Street. While the consistent slope provides for a more gradual transition between the higher and lower elevations on Kempton Place, the new slope is steeper than the maximum requirements for an on-street disabled parking space and therefore the disabled on-street parking space has been moved to Washington Street, which has a slope that is below the maximum allowable slope for an on-street disabled parking space. This revision is reflected in the updated site plans dated April 28, 2020.

BETA Comment: Comment addressed.

Comment 5.42: Consideration should be given to providing one disabled parking space in the parking lot for 1149 Washington Street.

Response: Under existing conditions there is one disabled parking space in the parking lot for 1149 Washington Street. This disabled space will remain in the reconfigured parking lot.

BETA Comment: Comment addressed.

TRANSPORTATION DEMAND MANAGEMENT

Comment 5.43: Transportation Demand Management (TDM) measures were summarized in the TIAS and stated that they may include the following programs:

- Reduced parking supply
- Transportation Coordinator
- Liaison with MassRides
- Car pool/ride share program
- Disseminating information on alternate travel modes
- Hosting occasional transportation-related events
- Distributing transit maps, schedules and passes
- Monitor TDM effectiveness through surveys and other tools and adjust as necessary
- Complete regulatory reports to state and city agencies as required
- Implement a website providing travel-related information and promoting awareness alternative travel modes

- Advocating with state and local governments to improve transportation infrastructure
- Provide information at a central commuter information center
- Pedestrian-friendly layout to encourage walking on-site
- Indoor bike storage and fix-it station and bike racks outdoors
- Bike-sharing on-site
- Car-sharing service on-site (such as Zipcar)
- Preferential electric vehicle/low emission car parking in parking garages by designating spaces and providing electric vehicle charging stations
- Shared parking for retail uses
- "Unbundling" of parking costs from rent/leases so that residents with vehicles will pay more to allow access to the parking garage
- Financial incentives for alternative transportation modes, such as discounted MBTA passes

The Applicant should identify which of the TDM measures the project will implement. Please provide more information about financial incentives for transit passes including: Will these be provided for all new tenants? Will they be provided in perpetuity?

Response: At this stage of the project, potential TDM measures have been outlined as highlighted above. The items that can be committed to at this time include:

- Reduced parking surplus
- Transportation Coordinator
- Liaison with MassRides
- Car-pool/ride share program
- Disseminating information on alternate travel modes
- Hosting occasional transportation-related events
- Distributing transit maps, schedules and passes
- Advocating with state and local governments to improve transportation infrastructure
- Provide information at a central commuter information center
- Pedestrian-friendly layout to encourage walking on-site
- Indoor bike storage and fix-it station and bike racks outdoors (486 bicycle parking spaces on site)

- Preferential electric vehicle/low emission car parking in parking garages by designating spaces and providing electric vehicle charging stations. 10% of total parking supply (another 10% charging ready)
- "Unbundling" of parking costs from rent/leases so that residents with vehicles will pay more to allow access to the parking garage
- Work with the city and the MBTA to install a bus shelter at bus stop adjacent to the site.

BETA Comment: The Applicant has developed a robust set of TDM measures that are appropriate. The Applicant should continue discussions with the City as the project progresses.

Comment 5.44: Four bicycle racks are shown along the project frontage on Washington Street. Page 75 of the TIAS states "bicycle racks will also be provided at locations near various buildings within the overall development." **Please identify these locations.**

Response: There will be eight bicycle racks located in the furniture zone of the Washington Street sidewalk adjacent to the site. The bicycle racks will be placed in four sets spaced along the site frontage with two bicycle racks in each set. The bicycle racks have been placed near the entrances to the retail businesses.

BETA Comment: Comment addressed.

Comment 5.45: **The Applicant should develop a set of transportation goals for the project that seek to reduce single-occupant vehicle travel and promote alternative transportation modes. The Applicant should identify how these goals will be measured, monitored, and adjusted as necessary if goals are not met.**

Response: The Applicant will work with the City of Newton to develop a set of transportation goals for the project that seek to reduce single-occupant vehicle travel and promote alternative transportation modes. The Applicant will also work with the City to identify how these goals will be measured and monitored.

BETA Comment: Comment addressed.

Comment 5.46: At the meeting with the Applicant at City Hall on February 25, 2020 there was some discussion of providing MBTA transit passes or subsidies to project residents. **Please provide additional information.**

Response: Subsidies for MBTA transit passes will be considered in the context of overall project mitigation.

BETA Comment: This measure would encourage transit use by project residents and reduce project-generated vehicle trips. We encourage the Applicant to consider this measure as part of the overall project mitigation.

Comment 5.47: **How many electric vehicle charging stations will be provided?**

Response: As stated in the response to Comment 5.38, ten percent of all spaces in the parking garages will include electric vehicle charging stations. An additional ten percent of spaces will be charging ready and will have the ability to have electric vehicle charging stations added in the future.

BETA Comment: Comment addressed.

Comment 5.48: **How many car-share service spaces will be provided on-site?**

Response: Car-share services will utilize the pick-up/drop-off spaces that have been designated on Washington Street and Kempton Place

BETA Comment: Will any on-site spaces be dedicated to car-share vehicles such as Zip Car?

Comment 5.49: Page 75 of the TIAS states that the retail TDM program will include shared parking for all uses. **Is shared parking planned in the project garages for residential, retail, and office uses (see Comment 5.30).**

Response: To simplify proposed operations and because only two different land uses are proposed on-Site, shared parking is not currently proposed with this Project. However, there is an opportunity to use the office parking (20 spaces) on nights and weekends for additional residential guest parking.

BETA Comment: It is noted that there are three land uses proposed (residential, office, and commercial). We recommend using office parking spaces for additional residential guest parking on nights and weekends (also see comment 5.30).

Comment 5.50: **The Applicant should consider providing bus shelters at the two nearest MBTA bus stops on each side of Washington Street.**

Response: The Applicant has spoken to the City of Newton Planning Department on the feasibility of requesting to move a bus stop to directly in front of the Site along Washington Street. The Applicant will support the City in making this request and will agree to provide bus shelter(s) if the MBTA agrees to move a stop in front of the Site, or at the adjacent (existing) bus stop if they do not.

BETA Comment: A new bus shelter should be considered on both sides of Washington Street (inbound and outbound directions).

CONSISTENCY WITH THE WASHINGTON STREET VISION PLAN

Comment 5.51: **The Applicant should agree to coordinate with the City as needed as the Washington Vision Plan progresses. This includes the coordination of a planned road diet test on Washington Street by the City of Newton.**

Response: If requested by the City of Newton, the Applicant agrees to coordinate as needed as the Washington Street Vision Plan progresses.

BETA Comment: Comment addressed.

6.0 OTHER COMMENTS

Comment 6.1: **A transportation management plan will need to be developed for the project to reduce trucks impacts to roadways and intersections. The plan will need to be approved by the City of Newton.**

Response: The Applicant will be developing a transportation management plan for the Project that will need to be approved by the City of Newton. The transportation management plan will include a plan to reduce truck impacts to roadways and intersections.

BETA Comment: The transportation management will also need to maintain safety and accessibility for all modes during construction.