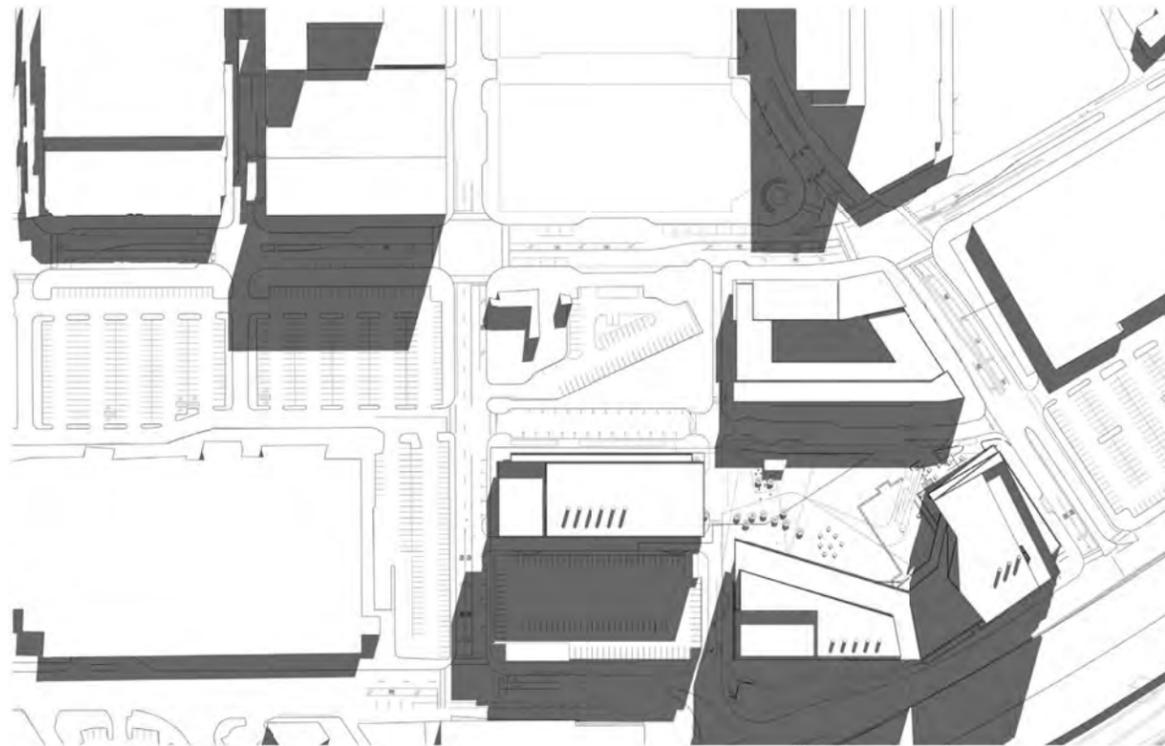


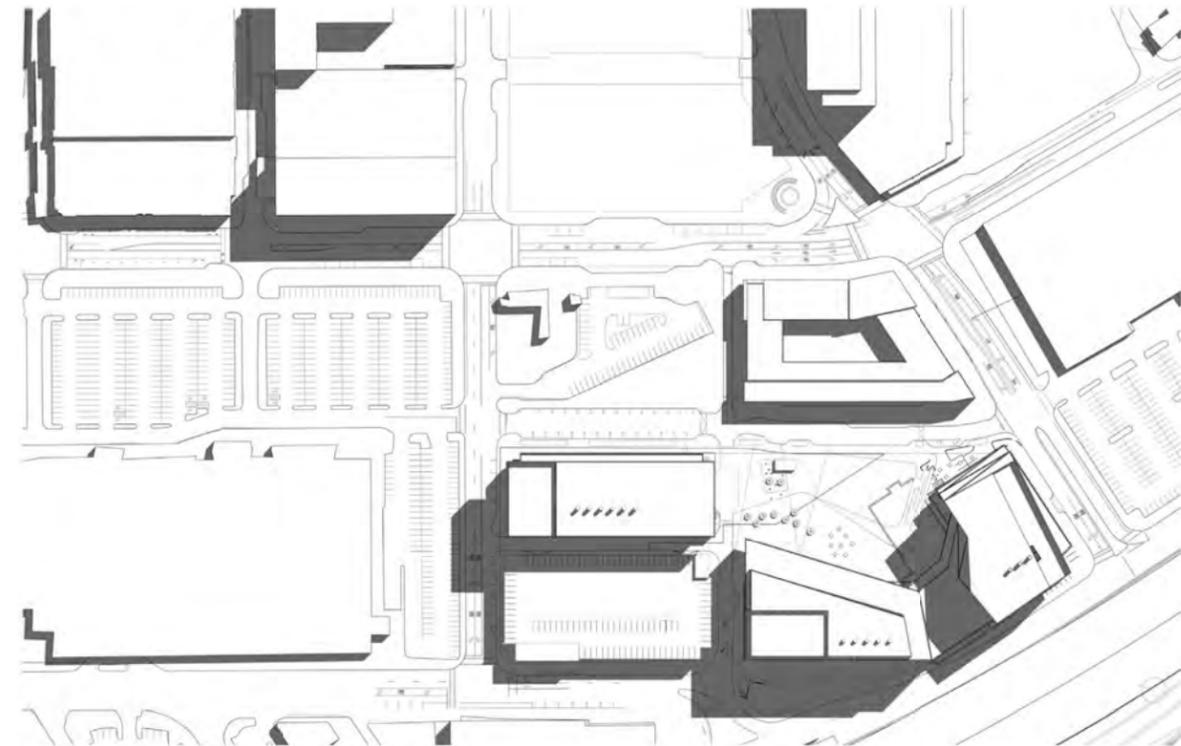
APPENDIX D: Shadow Study

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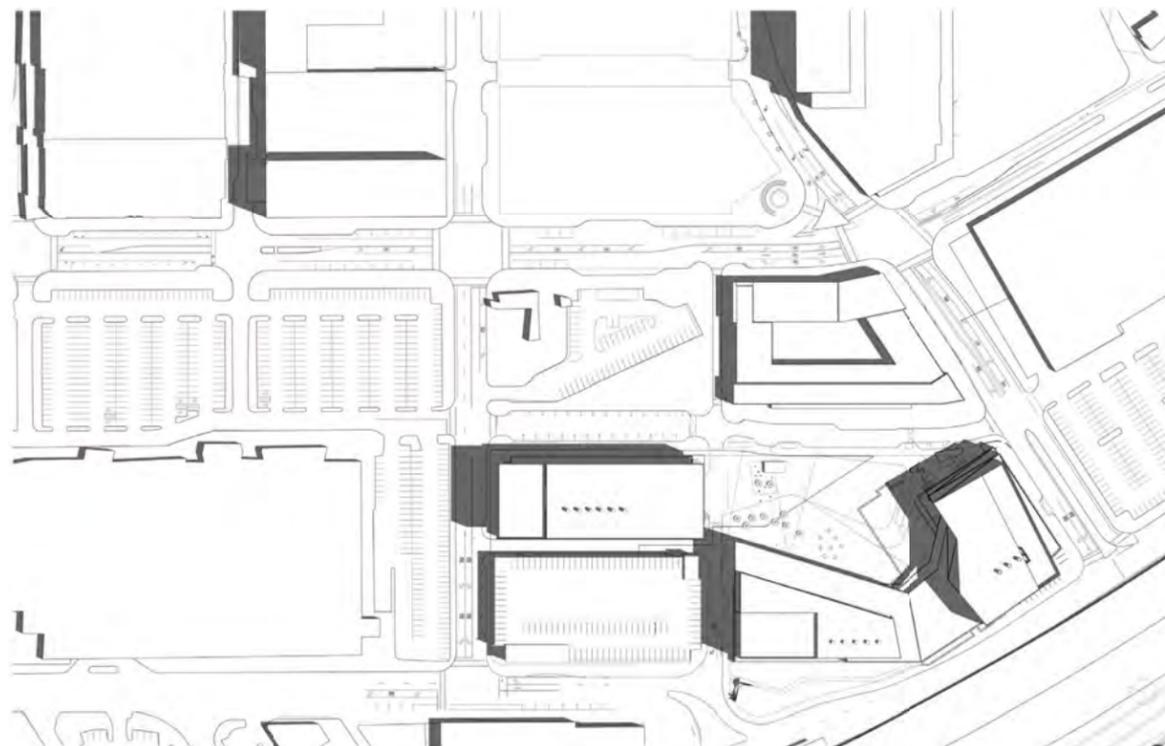
SHADOW STUDY | SUMMER SOLSTICE JUNE 21



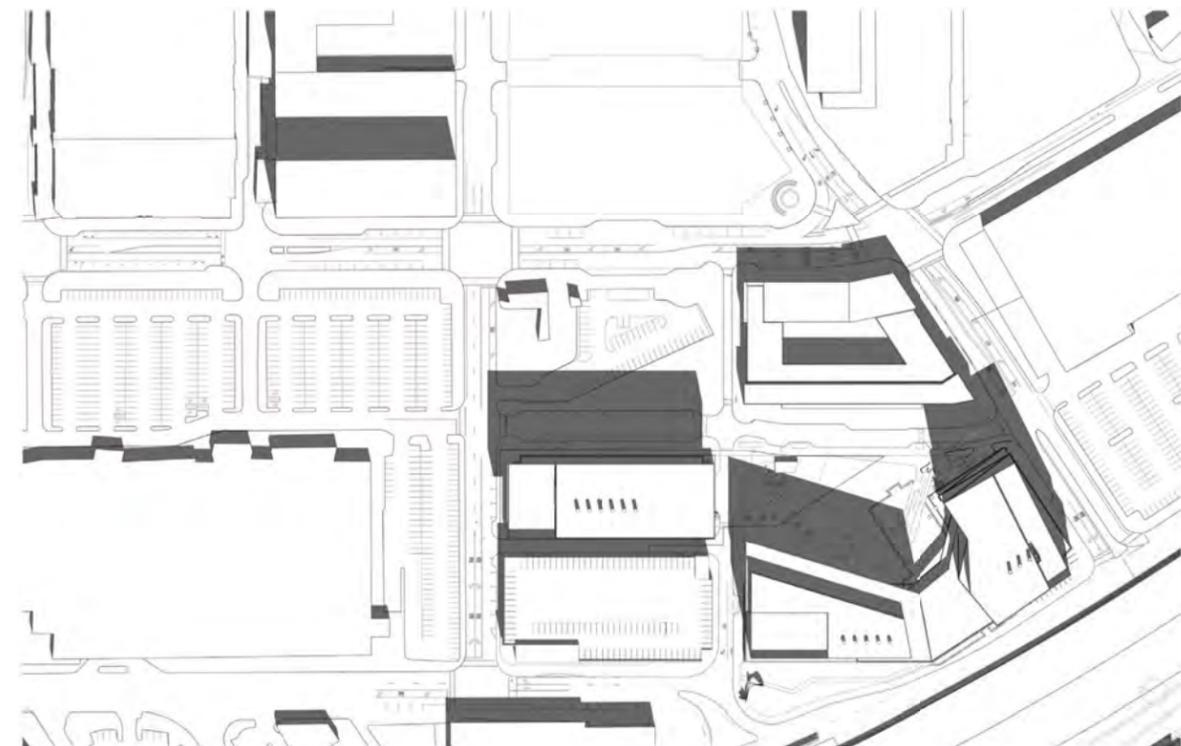
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11:00 AM



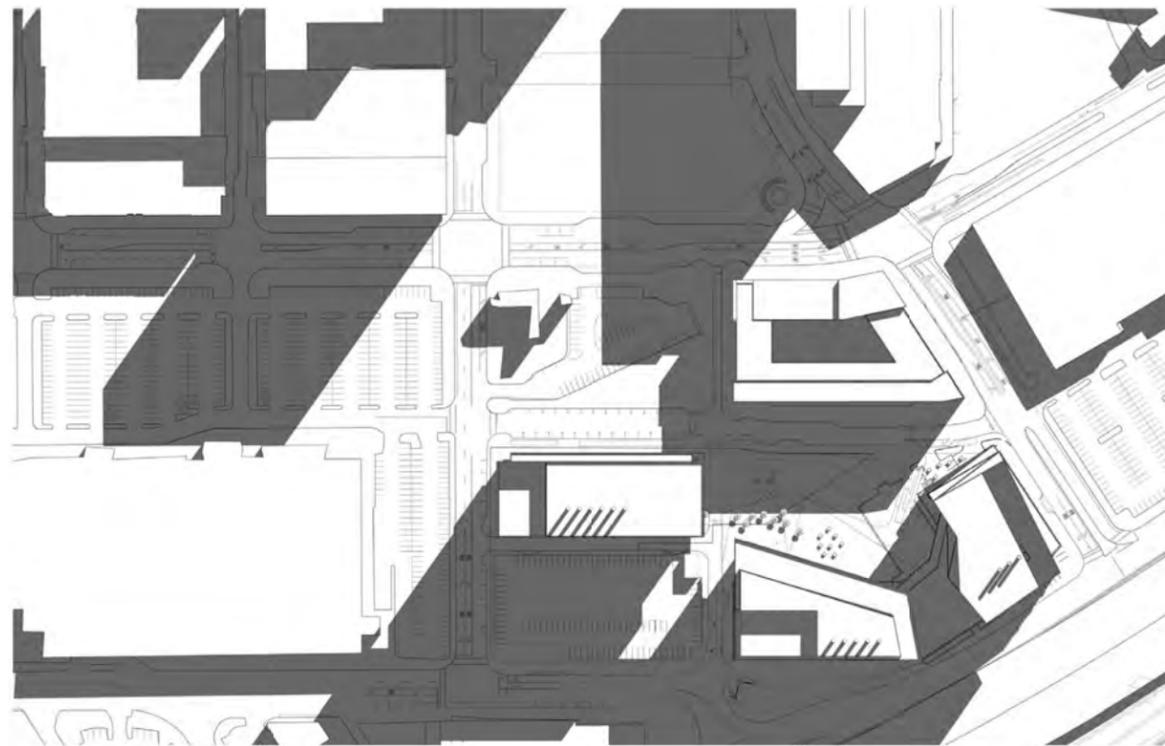
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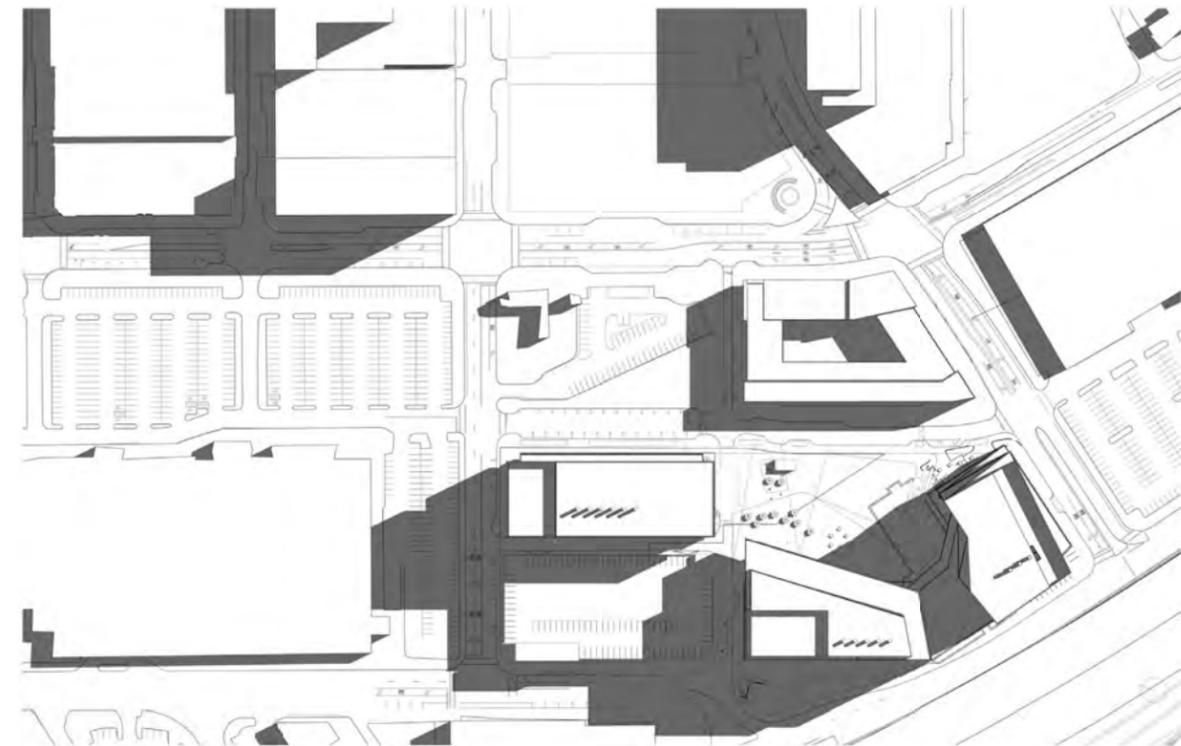
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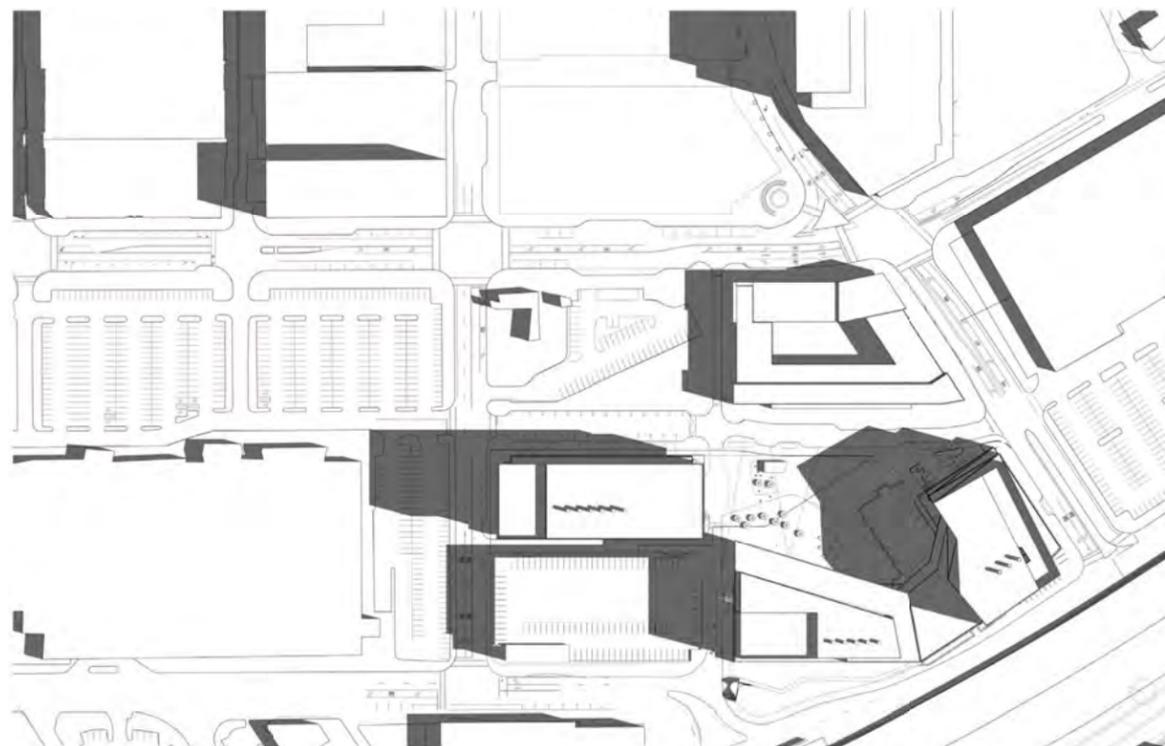
SHADOW STUDY | FALL EQUINOX SEPTEMBER 22



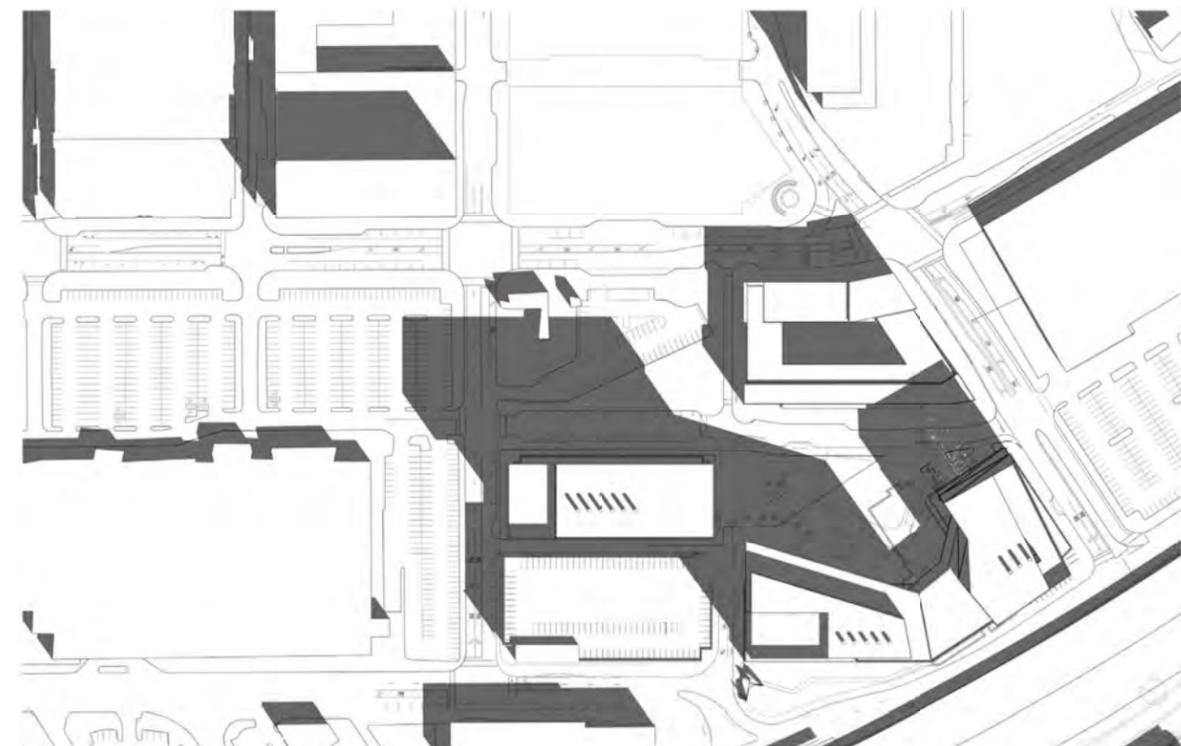
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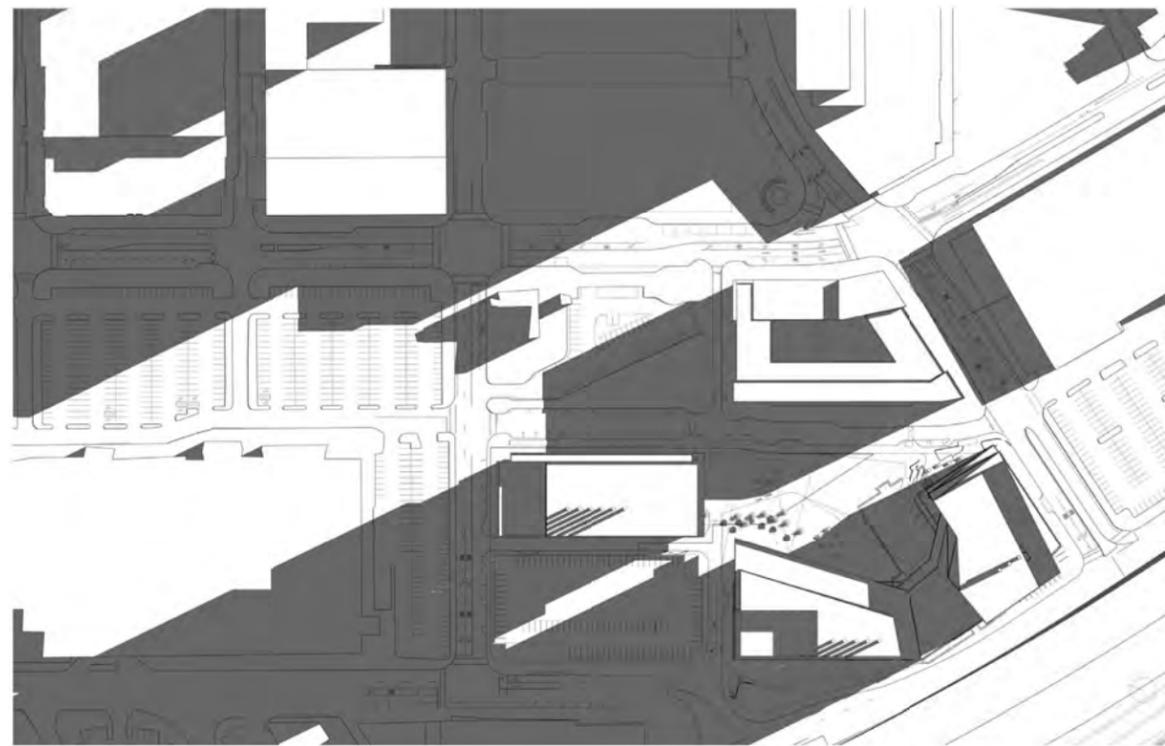
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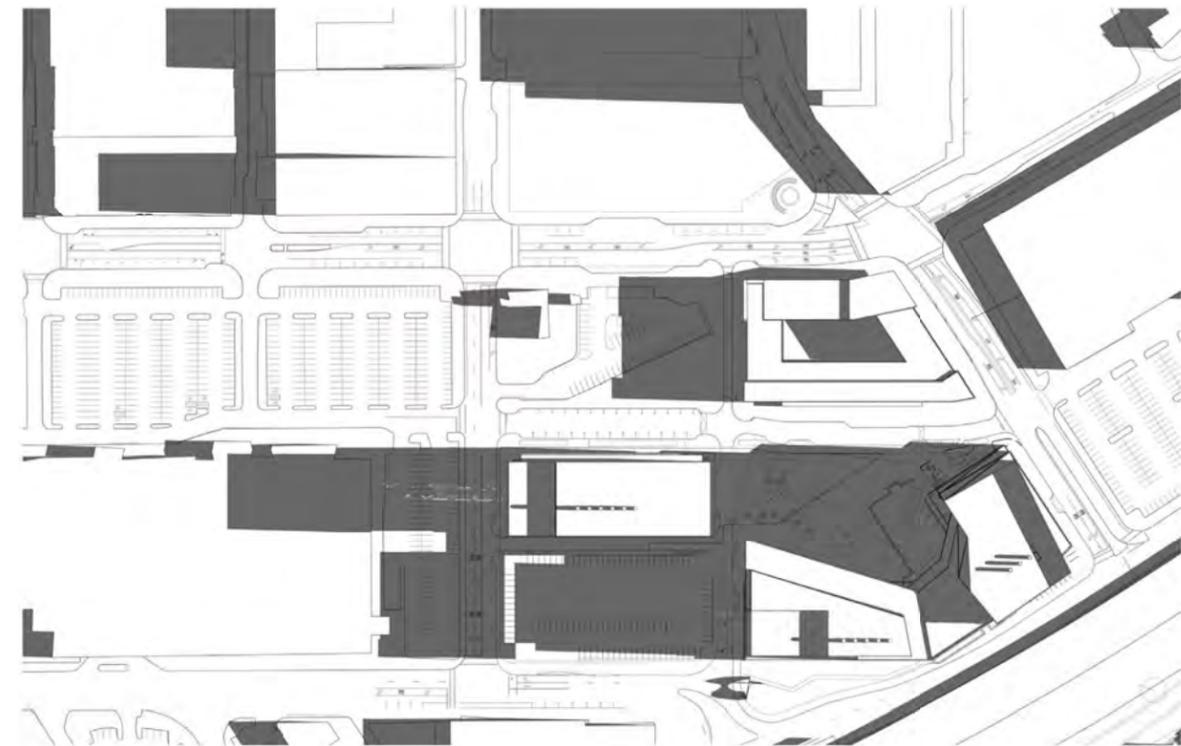
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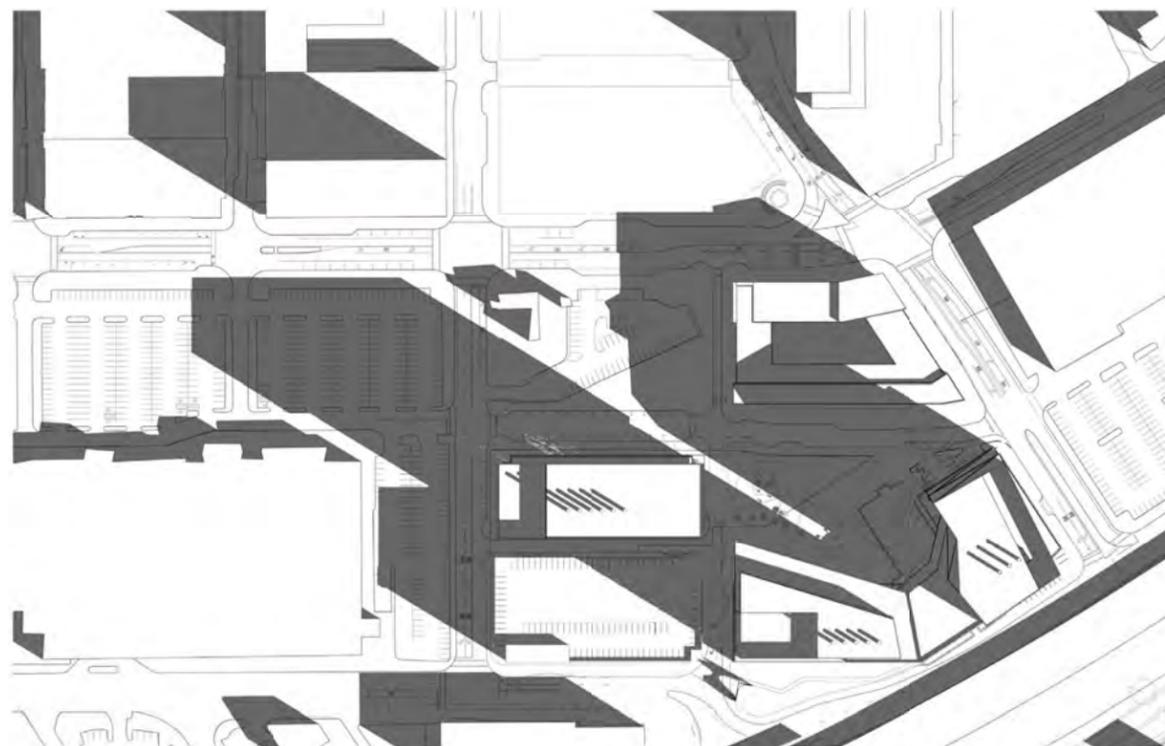
SHADOW STUDY | WINTER SOLSTICE DECEMBER 21



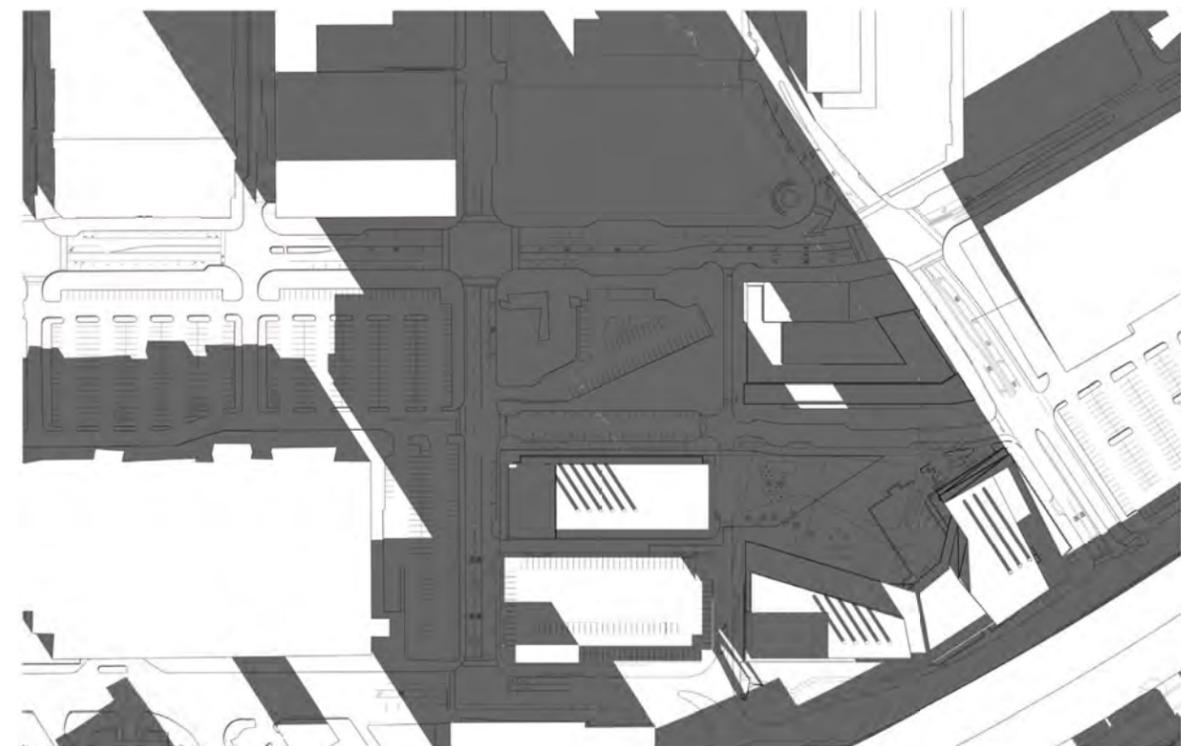
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APPENDIX F: Mobility Management Plan

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XMBLY

5 Middlesex Avenue

Somerville, Massachusetts

PREPARED FOR

CDNV Assembly, LLC & CDNV Land, LLC
c/o Ed Nardi
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Boston, MA 02109
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March 2020

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1

Project Information

Contact Information

The Project development site address and contact information is as follows:

XMBLY

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Project Description

CDNV Assembly, LLC, CDNV Land, LLC, and BRE-BMR Middlesex LLC, (collectively, the "Proponent") intends to develop a dynamic, mixed-use, transit-oriented development (the "Project") within the Assembly Square District of Somerville, Massachusetts. The Project will be developed within a combined 9.43-acre site bounded by Mystic Avenue, Foley Street, Grand Union Boulevard, and Revolution Drive (the "Site"). The development program will include a mixture of residential, office/lab, and retail uses with associated structured parking facilities and infrastructure improvements.

As with the originally approved 2018 XMBLY development on this site, the current Project will be undertaken over an extended period of time. Currently, initial development of the Site is underway, with Wood Partners constructing 329 residential units and 188 parking spaces (structured parking only) at the southeasterly corner of the Site assemblage. Approximately 10,700 square feet (sf) of ground-floor retail/restaurant space also will be provided in conjunction with this building.

Build Out/Program Estimates

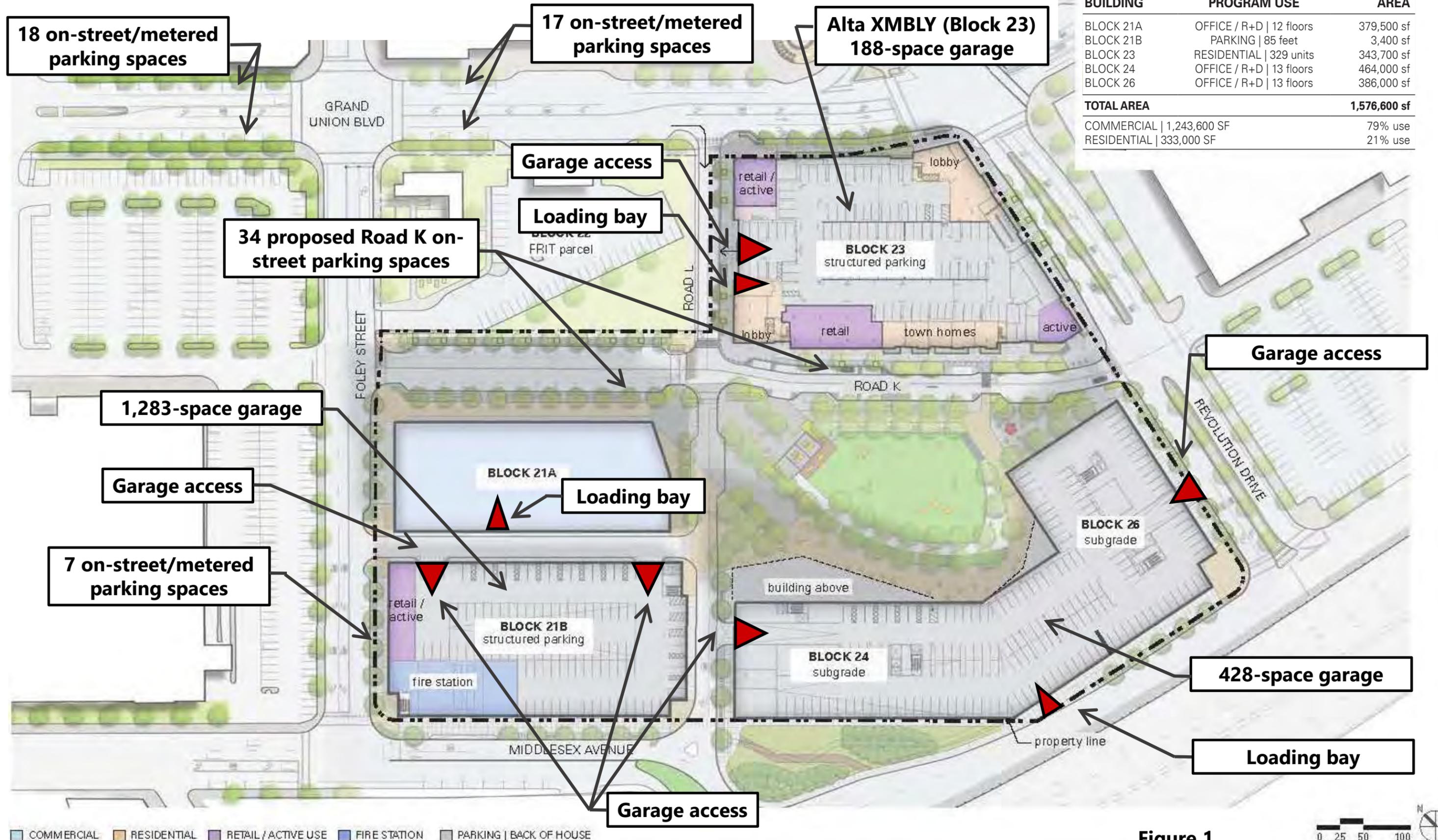
At its full build-out, the currently proposed Project will include approximately 1,219,100 sf of research & development/lab space with and approximately 24,500 sf of supporting retail/restaurant space. The overall Project also will include the "Alta XMBLY" 329-unit residential building discussed above. A new fire station also will be constructed within the Block 21 structured parking garage at the southeast corner of the Middlesex Avenue/Foley Street intersection. By comparison, the 2018 approved XMBLY development included 489 residential units, approximately 612,500 sf of office space, 333,500 sf of research & development/lab space, and 27,140 sf of supporting retail/restaurant space. The final mix of uses will vary depending on market conditions at the time the Project is constructed but will not exceed the approximate maximum dimensions presented above.

Parking Plan

The following section summarizes the proposed Project parking supply and a Vehicle Access and Parking Plan is provided for reference in Figure 1.

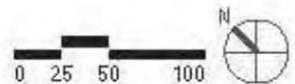
Motor Vehicle Parking Plan – XMBLY and On-Street parking

Source: XMBLY Design Guidelines February 28, 2020



BUILDING	PROGRAM USE	AREA
BLOCK 21A	OFFICE / R+D 12 floors	379,500 sf
BLOCK 21B	PARKING 85 feet	3,400 sf
BLOCK 23	RESIDENTIAL 329 units	343,700 sf
BLOCK 24	OFFICE / R+D 13 floors	464,000 sf
BLOCK 26	OFFICE / R+D 13 floors	386,000 sf
TOTAL AREA		1,576,600 sf
COMMERCIAL 1,243,600 SF		79% use
RESIDENTIAL 333,000 SF		21% use

Figure 1



Proposed Parking Supply

The 2018 approved XMBLY development provided 1,727 parking spaces, with 188 of those spaces being located within the Alta XMBLY residential building currently under construction within Block 23. With the originally proposed residential component of the Site being reduced from 489 units to only the 329 units currently under construction, the parking for the Project will be modified accordingly. Specifically, the approved 190,000 sf Block 25 building is now proposed to be used as commercial space instead of for residential units. Applying the approved commercial parking ratio of 1.47 spaces per thousand square feet would result in an additional 169 parking spaces being appropriate for the additional lab space, which is expected to have a greater need for parking than the previously-approved residential building.

With this change, the overall approach to parking within the Site will remain unchanged. As noted above, the residential component of the Project has been reduced since the original proposal with the remaining residential units. Considering the 188 parking spaces planned for the 329-unit building under construction, there will be a 0.57 space per unit parking ratio, which is slightly lower than the 0.61 ratio originally contemplated. With the 190,000 sf of former residential space now being allocated for research & development use, the approved 1.47 space per 1,000 sf parking ratio still will be used for this area. Accordingly, while the mixture of uses has changed, the underlying approved commercial parking ratio still will be applied without modification (while the residential parking ratio has decreased slightly). All the proposed parking will be located within parking structures with the exception of on-street parallel parking being provide at key locations within the internal Project roadway network. All the proposed parking will be located within parking structures with the exception of on-street parallel parking being provide at key locations within the internal Project roadway network.

The parking structures will be available only for Project use for both security and parking demand management purposes. Access will be controlled through gating, ticketing, reader cards or other means. This will help avoid this parking being used for the MBTA or other nearby developments.

The Project will include short- and long-term bicycle parking storage in compliance with the City of Somerville's guidelines to encourage cycling as a strong alternative transportation mode. The Project will provide interior secured bicycle parking spaces located within the Block 21B, Block 24, and Block 26 parking structures, in addition to the bicycle parking that already will be provided within the approved Block 23 Alta XMBLY building. The Project also will be providing short-term bicycle racks within 50 feet of each building entrance. The City of Somerville Zoning Bylaws require that a total of 182 bicycle parking spaces be provided. The exact capacity and location of the racks will be determined as the details of the Site design are refined. However, considering the mixture of proposed uses and configuration of the Site, a total of 224 bicycle parking spaces will be provided.

In addition to the parking facilities discussed above, there is ample on-street parking spaces near the Project Site. Specifically, on-street parallel parking is provided on both sides of Grand Union Boulevard within close walking distance to the Site, and along the

southerly side of Foley Street. On-street angled parking spaces also are provided along the westerly side of Middlesex Avenue with parallel parking provided along the east side of this roadway. The parking spaces along Middlesex Avenue are free along the westerly side but are metered along the east side. The cost for the metered spaces currently is \$1.25 per hour/\$0.25 per twelve minutes, with a two-hour time limit during the Monday-Saturday (8 AM-8PM) metered operation of these spaces. Due to its location, it is expected that any on-street parking demand associated with the Project primarily will occur along Grand Union Boulevard, Foley Street, or the planned roadways within the Site.

Nearby Transit Services

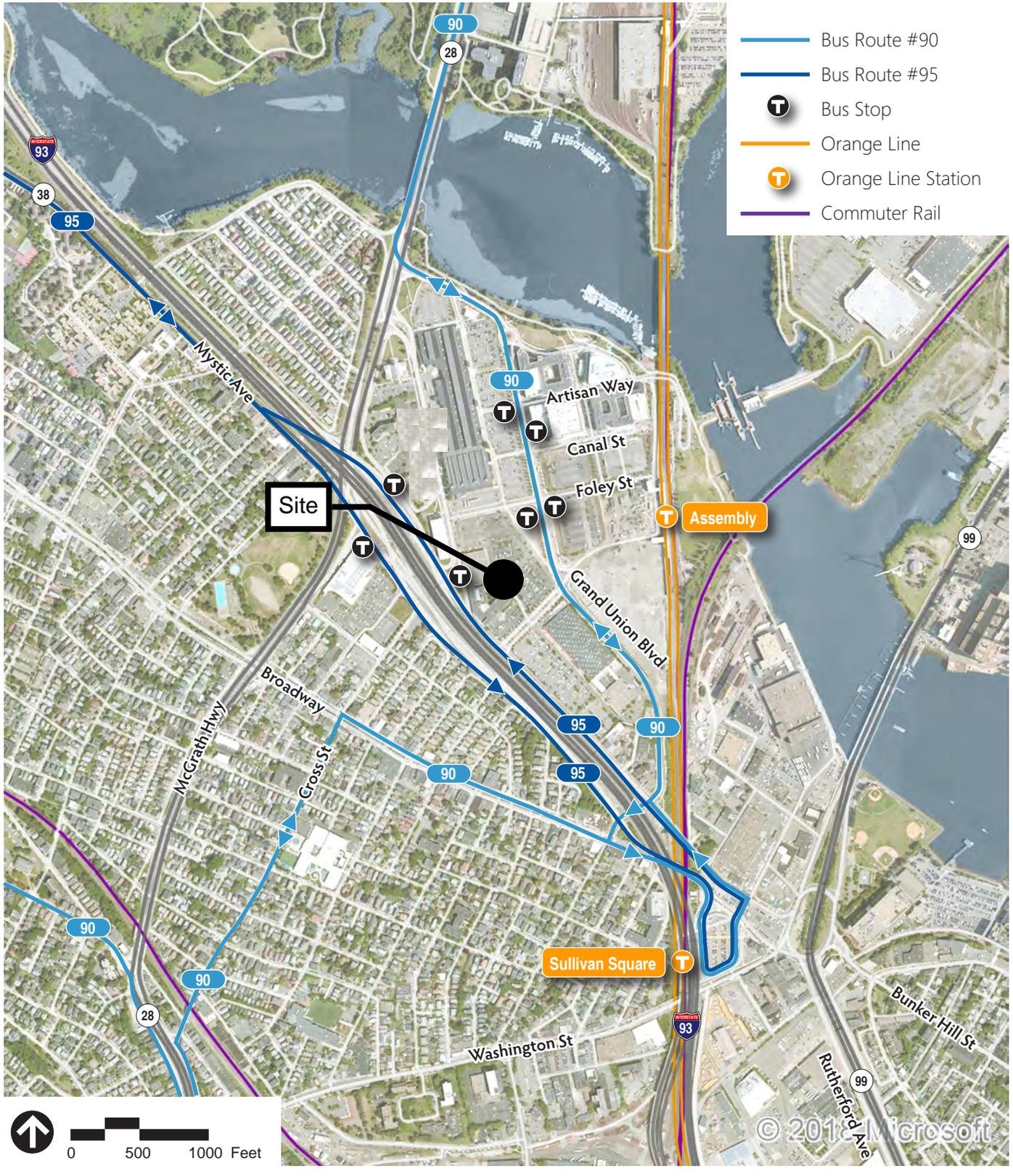
There are ample public transportation services provided by the Massachusetts Bay Transportation Authority (MBTA) currently in the immediate vicinity of the Project Site as summarized in the following section.

Existing Conditions

The study area is currently served by two MBTA bus routes within 0.5 miles of the Project Site. The area is serviced by MBTA Bus Routes 90 and 95. There are eighteen additional MBTA bus routes with stops within 0.75 miles of the Site. In addition, the Project Site is served by the MBTA Orange Line with Assembly Station located approximately less than 2,000 feet (approx. 0.38 miles), or an 8-minute walk, from the Project Site. A description of each transit service is provided below:

- › Bus Route 90 travels between Wellington Station and Davis Square via Assembly Square Mall, Sullivan Square, and Highland Avenue. The nearest stop to the Project Site is on Grand Union Boulevard at Foley Street, located approximately 1,100 feet (or a 4-minute walk) from the Site. During peak periods, Bus Route 90 has a frequency of approximately 30-50 minutes.
- › Bus Route 95 travels between Sullivan Square and West Medford via Mystic Avenue and Medford Square. The nearest stop to the Project Site is on Mystic Avenue (Route 38) at Kensington Avenue, located approximately 500 feet (or a 2-minute walk) from the Site. During peak periods, Bus Route 95 has a frequency of approximately 10-40 minutes.

Peak period frequencies/headways for MBTA bus services are shown graphically in Figure 2 and are summarized in Table 1.



Source: Bing Aerial, MassGIS



Figure 2
Existing Transit Service Map

XMBLY
Somerville, Massachusetts

Table 1 Project Area MBTA Service

Bus Route	Origin / Destination	Peak-Hour Frequency (minutes)	Direction	Weekday	Saturday	Sunday
90	Charlestown; Davis Square – Wellington Station	30-50	Inbound	588	334	230
			<u>Outbound</u>	<u>593</u>	<u>350</u>	<u>163</u>
			Total	1,182	684	393
95	Fellsway; West Medford – Sullivan Square	10-40	Inbound	896	445	206
			<u>Outbound</u>	<u>986</u>	<u>491</u>	<u>236</u>
			Total	1,881	936	442

a Based on MBTA’s Ridership and Service Statistics – Fourteenth Edition, 2014.

Assembly Square Orange Line Station

Assembly Station on the Orange Line of the MBTA is approximately 2,000 feet (approx. 0.38 miles) east of the Project Site via Foley Street. The Orange Line travels from Oak Grove in the north, to Forest Hills in the south, and serves the cities of Malden, Medford, and Somerville, as well as the Boston neighborhoods of Charlestown, Downtown, Chinatown, Back Bay, South End, Roxbury, and Jamaica Plain. The Orange Line runs approximately every six minutes during peak periods. The Assembly Station on the Orange Line opened in 2014.

Additional transit services are available within the study area beyond the 0.5 miles range discussed above. Additional stops on the Orange Line are located at Sullivan Square Station (located approximately 0.6 miles south of the Project Site) and Wellington Station (located approximately one mile north of the Site). Both Sullivan Square Station and Wellington Station are local transit hubs and provide connections to several additional MBTA bus routes.

Bicycle Network

As part of the traffic data collection, current biking activity was recorded for the study area intersections. The area surrounding the Project Site has ample bicycle accommodations which were implemented as part of the adjacent Assembly Row development. These include new bicycle lanes, a multi-use path, and other amenities. Grand Union Boulevard currently features striped bicycle lanes on both sides of the roadway; however, the City has plans to restripe Grand Union to provide a parking-protected cycle track, providing further protection for bicyclist.

The nearest Blue Bikes bicycle-sharing station to the Project Site is located near the northerly headhouse at Assembly Station, less than 1/4 mile to the east of the Project Site. As part of its approval in 2018, the XMBLY development had committed to installing an additional bicycle-sharing station. This commitment will still be maintained with the current proposal. Figure 3 provides an overview of the bicycle accommodations throughout the study area.

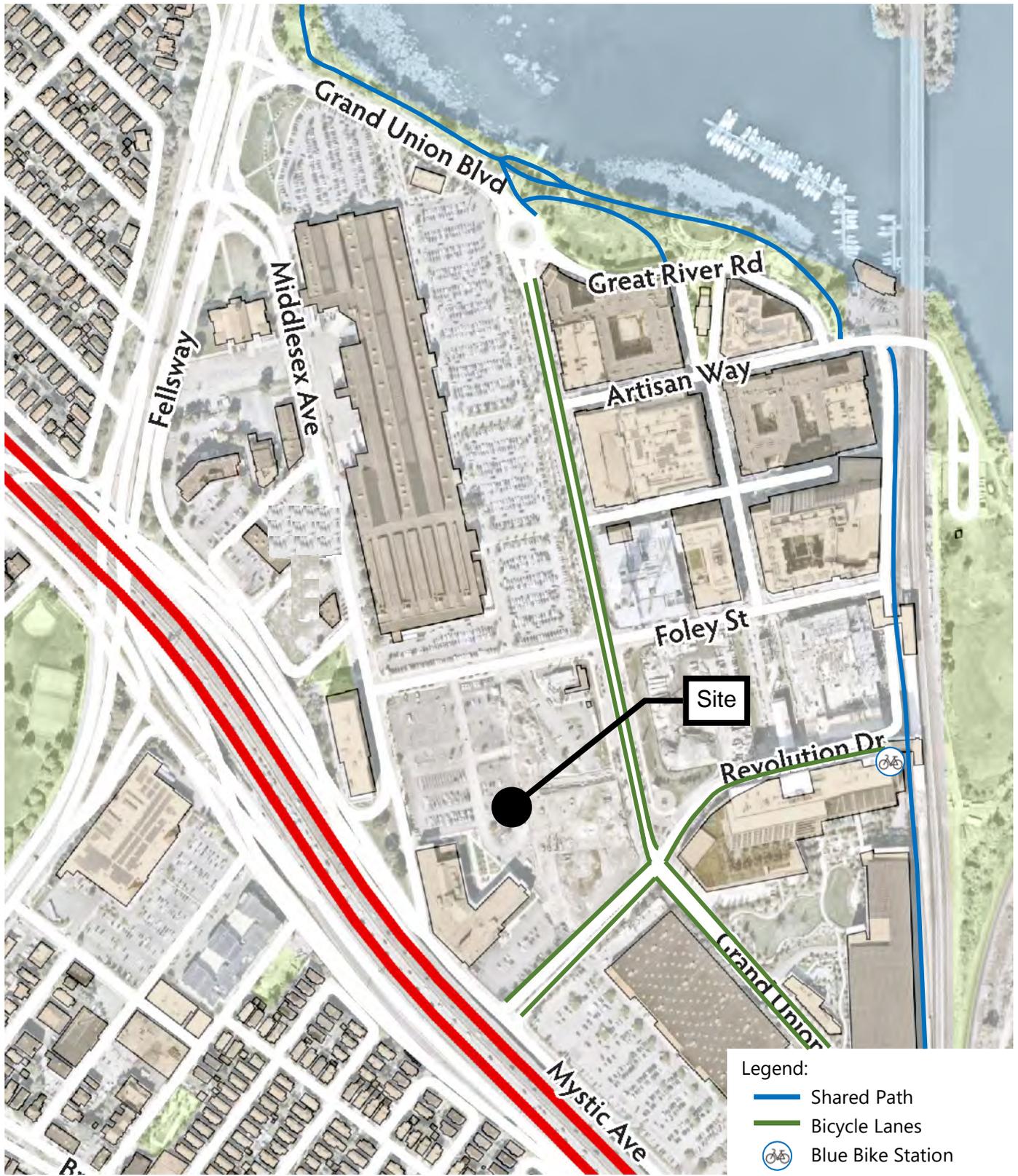


Figure 3
Bicycle Infrastructure Plan

XMBLY
Somerville, Massachusetts

Sidewalks

There currently are sidewalks provided along both sides of Grand Union Boulevard, Foley Street, and Middlesex Avenue within the vicinity of the Project Site. The new roadways being constructed within the Project Site also will be constructed in a pedestrian-friendly manner with ample sidewalks provided. There are crosswalks provided at key locations at the major intersecting roadways near the Project Site. The southerly portion of Road K within the Site also will be constructed as a “festival street” to occasionally be shut down for public events. Regardless, all of the internal roadways will be constructed with a complete-streets approach with appropriate bicycle and pedestrians’ accommodations, combined with standard traffic-calming features.

2

Mode Split / Trip Generation

While the commercial component of the 2018 approved XMBLY development was planned to include a mixture of office and research and development space (and supporting retail/restaurant space) the current Project will consist entirely of research & development/lab space with ground-floor retail/restaurant space.

Trip Generation

The amount of vehicular traffic generated by a development depends on multiple factors including size, location, and concentration of surrounding developments. The Trip Generation Manual¹ published by the Institute of Transportation Engineers (ITE) categorizes these land uses and provides weekday daily, weekday morning, weekday evening, Saturday daily and midday peak hour unadjusted vehicle trip generation estimates for each use. For the proposed development, the trip generation estimates for the planned uses were projected using LUC 760 (Research & Development Building), LUC 820 (Shopping Center), and LUC 222 (Mid-Rise Residential) for the Alta XMBLY building. The resulting overall Project trip generation was compared to that previously approved for development on this Site.

Table 2 summarizes the Project-related trip projections for the existing uses within the Project Site.

¹ Trip Generation Manual (10th Edition), Institute of Transportation Engineers, Washington D.C., 2017.

Table 2 Existing Site Trip Generation

	Existing Office ¹ (137,000 sf)	Existing Health Club ² (25,000 sf)	Existing Block 24 (162,000 sf)	
			Total Unadjusted Trips (162,000 sf)	Total Net Vehicle Trips (162,000 sf)
Weekday Daily				
Enter	720	538	1,258	668
Exit	<u>720</u>	<u>538</u>	<u>1,258</u>	<u>669</u>
Total	1,440	1,076	2516	1,337
Weekday Morning				
Enter	134	17	151	73
Exit	<u>22</u>	<u>16</u>	<u>38</u>	<u>15</u>
Total	156	33	189	88
Weekday Evening				
Enter	25	49	74	37
Exit	<u>129</u>	<u>37</u>	<u>166</u>	<u>82</u>
Total	154	86	240	119
Saturday Daily				
Enter	151	339	490	265
Exit	<u>151</u>	<u>339</u>	<u>490</u>	<u>264</u>
Total	302	678	980	529
Saturday Midday				
Enter	39	39	78	41
Exit	<u>33</u>	<u>41</u>	<u>74</u>	<u>39</u>
Total	72	80	152	80

- 1 Source: *Trip Generation Manual, 10th Edition*; Institute of Transportation Engineers (ITE); Washington, D.C. (2017). Land use code 710 (General Office Building).
- 2 Ibid. Land use code 492 (Health/Fitness Club).

As shown in Table 2, the existing trip generation for Block 24 is lower than that which would be found in a more isolated suburban site. This is due to the availability of public transportation, shared trips with other nearby uses within the Assembly Square district, and the inherent benefits of being located within an area with bicycle and pedestrian accommodations. The details of these assumed mode splits are discussed in greater detail later in this section. With the Project and continued ongoing development of the surrounding area the trend away from single-occupant automobile travel to and from the Project Site should continue.

Following the documentation of the existing Block 24 trip generation as shown in Table 2, trip generation was estimated for the full redevelopment of the Project Site. The methodology used and results of this analysis are discussed in detail in the following sections.

Proposed Project-Generated Traffic

The proposed transit-oriented development will consist of a mixture of research & development/lab and supporting ground floor retail/restaurant space. As noted above, traffic associated with the office/lab space was estimated using ITE LUC 760 (Research & Development Building) trip generation data. The retail uses are expected to be small, service-oriented businesses. While exact tenants have not yet been secured, these are not expected to be large destination-retail uses. Instead, potential uses will include small eating establishments, coffee shops, or gallery uses. While these do not fit the description of a transitional ITE “Shopping Center”, retail traffic was estimated using this land use code (LUC 820), which results in an overly conservative analysis. The overall unadjusted vehicle trip estimates for the Project are presented in Table 3.

Table 3 Project Trip Generation – Unadjusted Vehicle Trips

	Research & Development	Residential	Retail/ Restaurant	Total Unadjusted Vehicle Trips
Weekday Daily				
Enter	6,755	896	475	8,126
Exit	<u>6,755</u>	<u>896</u>	<u>475</u>	<u>8,126</u>
Total	13,511	1,791	950	16,252
Weekday Morning				
Enter	378	29	15	421
Exit	<u>126</u>	<u>81</u>	<u>9</u>	<u>216</u>
Total	504	110	24	638
Weekday Evening				
Enter	88	85	46	219
Exit	<u>500</u>	<u>54</u>	<u>50</u>	<u>604</u>
Total	588	139	96	823
Saturday Daily				
Enter	1,140	709	580	2,429
Exit	<u>1,140</u>	<u>709</u>	<u>580</u>	<u>2,429</u>
Total	2,280	1,417	1,160	4,857
Saturday Midday				
Enter	144	71	59	274
Exit	<u>144</u>	<u>74</u>	<u>54</u>	<u>272</u>
Total	288	145	113	546

a Based on ITE LUC 760 (Research & Development Building).

b Based on ITE LUC 820 (Shopping Center), assumes 25,100 sf of retail/restaurant space.

The values shown in Table 3 are the base unadjusted vehicle-trip estimates prior to the necessary adjustments for internal trip sharing, mode-splits, and other factors. The details of how these subsequent adjustments were made by each step are discussed in the following sections.

Person Trips

The unadjusted vehicle trips calculated using the ITE data were subsequently converted into person trips by applying national data² for vehicle-occupancy rates for a variety of uses. This was done so that the national ITE-based data also would be converted to person trips using national data for consistency.

Internal Capture Trips

As described in the ITE Trip Generation Handbook, “because of the complementary nature of these land uses, some trips are made among the on-site uses. This capture of trips internal to the site has the net effect of reducing vehicle trip generation between the overall development site and the external street system (compared to the total number of trips generated by comparable land uses developed individually on stand-alone sites)...an internal capture rate can generally be defined as the percentage of total person trips generated by a site that are made entirely within the site. The trip origin, destination, and travel path are all within the site.”

Based on the methodology outlined in the ITE Trip Generation Handbook, internal capture rates were applied to the gross person trips. The resulting peak-hour person trip estimates for the Project are presented in Table 4.

² [Summary of Travel Trends – National Household Travel Survey](#); USDOT Federal Highway Administration (Washington, DC), 2017.

Table 4 Project Peak-Hour Person Trips

	Research & Development	Residential	Retail ^a	Total Person Trips
Weekday Morning				
Enter	427	32	26	485
Exit	<u>142</u>	<u>92</u>	<u>16</u>	<u>250</u>
Total	569	124	42	735
Weekday Evening				
Enter	100	96	82	278
Exit	<u>565</u>	<u>61</u>	<u>89</u>	<u>715</u>
Total	665	157	171	993
Saturday Midday				
Enter	163	80	105	348
Exit	<u>163</u>	<u>84</u>	<u>97</u>	<u>344</u>
Total	326	164	202	692

^a Person trip generation estimate with internal capture credits applied.

Mode Share

The mode shares to be used for this Project were developed considering multiple sources. These include U.S. Census data³, a traffic study⁴ for a prior development proposal on the Project Site, the Mobility Management Plan (MMPG) for an adjacent parcel⁵, and data from the Notice of Project Change (NPC)⁶ prepared for the Partner’s office development within the Assembly Square Mixed-Use District (ASMD).

The following sections discuss aspects of the Project which also should help promote a shifting from single-occupant vehicles as the predominant mode of travel near the Project Site.

Promotion of Transit Use

Access to public transportation will significantly reduce demand for vehicular travel and parking spaces. This should be particularly effective in relation to the MBTA Orange Line Assembly Station already being in operation within a short walking distance to the Project Site.

As noted earlier, the on-site TDM coordinator will provide a central commuter information center within the Project Site in a prominent location such as in a building foyer, or near garage elevators. This will provide employees and visitors with transit maps and schedules and route information for pedestrians and cyclists.

³ [U.S. Census Bureau, American Community Survey 2012-2016 5-year estimates, Census Tract 3501.03.](#)

⁴ [Assembly’s Edge, Special Permit with Site Plan Review \(Chapter 4 – Transportation\);](#) Design Consultants, Inc. (Somerville, Massachusetts); April 19, 2018.

⁵ [XMBLY – 5 Middlesex Avenue \(Appendix F - Mobility Management Plan\);](#) VHB (Watertown, Massachusetts); May 2018.

⁶ [Assembly Row Revised Program for Partners Healthcare Site – Notice of Project Change;](#) VHB (Watertown, Massachusetts); May 15, 2014.

Facilitating Bicycle and Pedestrian Travel

The open space, pedestrian pathways and sidewalk connections proposed as part of the Project will be designed to complete and improve connections with the existing and future network of parks and pathways in the vicinity of the Project Site. Travel to the Project Site by cycling or walking will be promoted by the Proponent through the provision of improved bicycle and pedestrian connections within the Project Site and surrounding Assembly Square area. In addition to secured, covered bike storage within each building, bicycle racks also will be provided at locations near various buildings within the overall development. Walking to and from, and throughout the Project Site will be encouraged by the provision of a pedestrian-friendly site layout, which features sidewalks and crosswalks at key points both within the Site and connecting to adjacent planned developments. The bicycle and pedestrian infrastructure improvements will help to promote non-vehicular travel to the Project Site.

The nearest Blue Bikes bicycle-sharing station to the Project Site is located near the northerly headhouse at Assembly Station approximately 1/4 mile to the east of the Project Site. Additionally, the Proponent remains committed to installing an additional bicycle-sharing station at the Project Site.

Secured bicycle parking spaces will be provided to meet the City of Somerville requirements. This parking will be provided within both of the primary structured parking garages within the Site to satisfy the Somerville Zoning Ordinance requirements. The Project also will be providing short-term bicycle racks within 50 feet of each building entrance. The exact capacity and location of each rack will be determined as the Project design is refined.

Parking Management

The parking ratios proposed for the Project are considerably lower than those found in a suburban setting and are low even for sites that are well-served by public transportation. With the limited supply, parking spaces will be allocated to a select number of employees.

Parking for the research & development/lab employees will be allocated only to certain employees through a process to be determined by individual tenants, or parking use will be managed through pricing strategies. Given that the Project Site is located within 2,000 feet (approx. 0.38 miles) of the Assembly Station, not having access to parking on site should not be a hardship to employees.

Most of the Project retail space will consist of small shops, restaurants, or cafes within the ground-level of the buildings. Even without any formal shared parking program, there will likely be shared activity. The majority of customer traffic to the retail/restaurant uses on site will likely be in the form of office/lab workers already on-site as opposed to destination retail traffic.

The Proponent will consider the following additional TDM measures:

- › Charge for on-site employee parking and provide subsidies for off-site parking;

- › Demand-responsive pricing: adjust hourly rates for employee and customer parking to manage parking availability;
- › Preferential carpool/vanpool parking spaces; and
- › Shared parking.

Project Mode Share

The existing mode splits for this area are compared to the resulting anticipated mode splits in Table 5. Through the implementation of this MMP, it is the hope and expectation of the Proponent that the percentage of trips made by automobile can be reduced to under 50-percent in keeping with the goals of the City of Somerville.

Table 5 Mode Share

Use	Vehicle	Transit	Bike/Walk
<u>Project with Existing Mode Splits:</u>			
Research & Development	54%	36%	10%
Residential	43%	47%	10%
Retail/Restaurant	80%	10%	10%
<u>Project with Anticipated Mode Splits:</u>			
Research & Development	50%	38%	12%
Residential	43%	47%	10%
Retail/Restaurant	50%	25%	25%

Source: Based on hybrid of mode shares used in Partners Health Care Study PNF (2014), Certified NorthPoint TIS (with data from Kendall Square K2 City of Cambridge, "Hotel Parking and Transportation Demand Management Reports – City of Cambridge", Assembly Edge PUD-PMP (2017), US Census data, and Boston Transportation Department data for Zone 11 (Sullivan Square).

The existing mode shares discussed above were applied to the net-new person trips to generate the adjusted Project trips by mode. The local average vehicle-occupancy rate based on US Census data for each primary use then was applied to the vehicle mode to reflect the number of vehicle trips generated by the Project Site.

Pass-By Trips

While the ITE rates provide estimates for all the traffic associated with each land use, not all of the traffic generated by the Project will be new to the area roadways. For example, a portion of the vehicle-trips generated by the retail land use will likely be drawn from the traffic volume roadways adjacent to the Project Site. Someone traveling on Middlesex Avenue may choose to deviate from their original travel path to visit the Project Site retail, before heading back to continue to their final destination. For this evaluation, ITE pass-by rates for LUC 820 (Shopping Center) were utilized for the retail trip generation and applied to existing trips on South Street. Specifically, 34- and 26-percent of the Project Site trip generation was assumed to be drawn from the surrounding roadway

network during the weekday evening and Saturday midday peak hours, respectively. For all other time periods studied, a 25-percent pass-by rate was assumed.

Project-Generated Trips

The existing mode share and local average vehicle occupancy were applied to the person trips to estimate net new trips by mode, and then the pass-by adjustments noted above were applied to the vehicle trips generated by the retail portion of the Project. Tables 6 and 7 summarize the net new trips by mode (based on existing conditions) and net new vehicle trips by use, respectively.

Table 6 Project-Generated Peak-Hour Trips by Mode

	Bike/Walk	Transit	Vehicle ^a
Weekday Morning			
Enter	47	168	211
<u>Exit</u>	<u>23</u>	<u>91</u>	<u>96</u>
Total	70	259	307
Weekday Evening			
Enter	24	74	98
<u>Exit</u>	<u>66</u>	<u>229</u>	<u>301</u>
Total	90	303	399
Saturday Midday			
Enter	30	90	129
<u>Exit</u>	<u>29</u>	<u>95</u>	<u>125</u>
Total	59	185	254

a Total development vehicle trips (including pass-by trips associated with the retail portion).

As shown in Table 6, the Project is expected to generate between 254 and 399 total vehicle trips during the peak hours studied (including trips generated by the existing Project Site uses). The breakdown of these trips by use is provided below in Table 7.

Table 7 Project-Generated Peak-Hour Vehicle Trips by Use ^a

	Research & Development	Residential	Retail	Pass-By ^b	Total Trips	-Existing Trips ^c	= Total New Vehicle Trips
Weekday Morning							
Enter	192	11	6	2	211	73	138
Exit	<u>61</u>	<u>31</u>	<u>2</u>	<u>2</u>	<u>96</u>	<u>15</u>	<u>81</u>
Total	253	42	8	4	307	88	219
Weekday Evening							
Enter	44	24	20	10	98	37	61
Exit	<u>254</u>	<u>18</u>	<u>19</u>	<u>10</u>	<u>301</u>	<u>82</u>	<u>219</u>
Total	298	42	39	20	399	119	280
Saturday Midday							
Enter	72	18	30	9	129	41	88
Exit	<u>70</u>	<u>24</u>	<u>22</u>	<u>9</u>	<u>125</u>	<u>39</u>	<u>86</u>
Total	142	42	52	18	254	80	174

a New vehicle trips with internal capture credits applied.

b Pass-by credits of 25%, 34%, and 26% applied to weekday morning, weekday evening, and Saturday midday peak hour retail trip generation, respectively.

c Source: Table 2.

As shown in Table 7, the Project is expected to generate a total of 307, 399, and 254 new vehicle trips during the respective weekday morning, weekday evening, and Saturday midday peak hours. However, these totals do not account for any credit for traffic already being generated by the Project Site under existing conditions. Compared to the current use of the Site, the Project will result in an increase of 219, 280, and 174 vehicle trips during the weekday morning, weekday evening, and Saturday midday peak hours. Furthermore, this increase is even smaller when compared to the prior 2018 XMBLY approval involving more traffic-intensive offices use and additional residential units. With that approved project, the projected increases during these respective peak hours were 364, 414, and 264 vehicle trips. The full potential impacts of that project were evaluated through a comprehensive Traffic Impact and Access Study reviewed as part of both the City of Somerville and state MEPA review processes. With the lesser increase in traffic shown above, the findings of that prior study remain unchanged.

The anticipated vehicle trip generation presented above is based on the existing estimated mode splits in this area. As noted earlier, the desired mode splits in this area are target at a maximum of 50-percent automobile usage. Table 8 compares the estimated total vehicle trip generation for the Project (prior to deducting existing Site traffic) based on current conditions, to that based on the improved mode-split anticipated to be achieved through the implementation of this MMP.

Table 8 Project Trip Generation Comparison – Existing vs. Targeted Mode Splits

	Total Project Trip Generation		Reduction in Vehicle Trips	
	With Existing Mode Splits ^a	With Targeted Mode Splits ^a	Vehicle Trips	Percent Decrease
Weekday Morning				
Enter	211	194	17	
Exit	<u>96</u>	<u>91</u>	<u>5</u>	
Total	307	285	22	7%
Weekday Evening				
Enter	98	84	14	
Exit	<u>301</u>	<u>271</u>	<u>30</u>	
Total	399	355	44	11%
Saturday Midday				
Enter	129	109	20	
Exit	<u>125</u>	<u>108</u>	<u>17</u>	
Total	254	217	37	15%

^a Existing conditions mode share and Project mode share based on Table 5.

As shown in Table 8, it is expected that Project vehicle trip generation can be reduced by 7- to 15 percent through the implementation of the MMP, proximity to public transit, and the availability of bicycle/pedestrian accommodations.

Trip Distribution

The directional distribution of traffic approaching and departing the Project is a function of several variables. These include the population densities, shopping opportunities, competing uses, existing travel patterns, and the efficiency of the roadways leading to the Site.

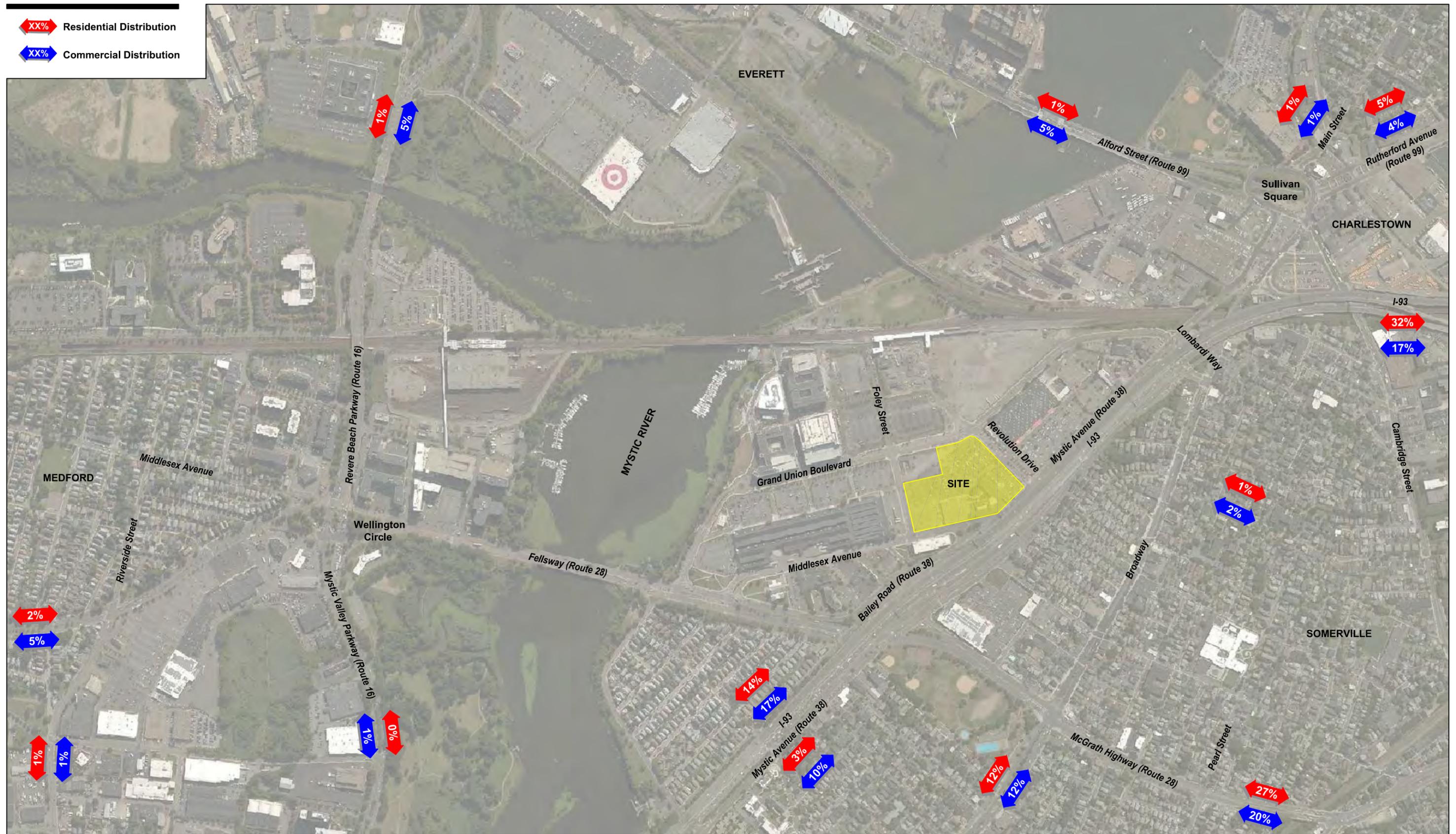
As the Project is primarily comprised of office/research & development/lab space, the trip distribution patterns were determined using journey-to-work census data for the City of Somerville.

The Project Site is bound by existing roadways around its perimeter, which will allow for multiple options for entering and existing the overall Project Site. The Project also will include the construction of a new “Road K” traveling in a north/south direction through the center of the Project Site. This roadway will be intersected at its midpoint by Road L, which will continue to the east to its terminus with Grand Union Boulevard. This road also will continue to and from the west where it will connect to Middlesex Avenue. Road K will intersect Foley Street opposite the K-Mart Driveway on the opposite side of the roadway, and this location will continue to function as a full-access unsignalized intersection. Road K will continue to the south through the Project Site where it will intersect Revolution Drive opposite the existing Home Depot driveway. To enhance access at this location, a new eastbound left-turn lane already has been constructed within the existing roadway median to accommodate entering left-turns into the Project Site. This intersection will continue to operate at as a full-access four-way, unsignalized intersection.

To avoid traffic conflicts on Grand Union Boulevard, turning movements to and from Road L will be limited to right-turns only. Road L will provide access and egress for the residential 197-space parking garage under construction within Block 23, and Project Site residents also may use Road K to travel to and from the garage. Road K also will provide access and egress to the Block 21 commercial parking garage. The Block 21 will no longer have an access driveway on Road K. Instead, the garage will be accessed via a connecting circulation aisle on Foley Street, and the Road L connector roadway to the south.

A new driveway also will be provided on Middlesex Avenue, but it will be limited to entering and exiting right-turns only due to the existing landscaped island opposite the site which limits Middlesex Avenue to one-way, northbound travel only in this area. However, the Proponent actively pursuing an alternate design to allow for at least exiting traffic directly onto Middlesex Avenue heading to Mystic Avenue northbound, with entering left-turns into the Site also possibly being allowed. To help provide adequate sight lines looking from this driveway towards northbound Middlesex Avenue traffic, the easterly curblineline of this roadway will be modified slightly. Specifically, the existing edge of road will be shifted by up to 26 feet to the west. Traffic heading northbound on Mystic Avenue still will be able to freely turn right onto Middlesex Avenue, but exiting Project Site traffic will be able to see these oncoming vehicles for a greater distance. With this change, there also will be additional green space provided along the Project Site's Middlesex Avenue frontage which should provide for improved conditions for pedestrians in this area.

Finally, the potential 14,000 sf City of Somerville fire station will have its own driveway on Middlesex Avenue at the northwest corner of Block 21B. The Proponent is committed to working with the City to help provide appropriate measures to help ensure timely, safe, and efficient access and egress to this new amenity. Figure 4 summarizes the resulting trip distribution patterns for the Project, which also are presented in Table 9.



Trip Distribution
5 Middlesex Avenue

XMBLY
Somerville, Massachusetts

Figure 4

Table 9 Vehicle Trip Distribution Summary

Route	Direction	Commercial Trip Distribution	Residential Trip Distribution
I-93	North	18%	11%
I-93	south	15%	28%
Route 28	north	11%	3%
Route 28	south	21%	14%
Broadway	north	17%	11%
Mystic Avenue	north	6%	3%
<u>Mystic Avenue</u>	<u>south</u>	<u>12%</u>	<u>3%</u>
Total	--	100%	100%

Mode Share Commitment

The Proponent is committed to making reasonable efforts to achieve the City’s goal to control the percentage of trips by automobile at 50 percent or less, consistent with the updated Somerville Zoning Ordinance adopted on December 12, 2019. In combination with proposed pedestrian and bicycle improvements, close proximity to public transit services, and inherent walkable characteristics of the Assembly Square neighborhood, implementation of this MMP is anticipated to help decrease the percentage of trips made by automobile to 50 percent compared to estimated existing conditions of 54 percent of trips made by automobile. If annual monitoring and reporting identifies a shortfall in meeting this goal, additional mobility management programs and services will be implemented. The nature and details of the additional reasonable efforts to be undertaken by the Proponent (if required) will be determined through consultation with the City of Somerville Director, Mobility Division. The measures could involve amplifying existing programs or introducing new measures.

3

Proposed Programs and Services

A MMP is required for any development within the ASMD. As a matter of departmental policy for the City of Somerville, the Director of Mobility Division requires an MMP for the following types of development:

- › Property owners of buildings with 50,000 sf or more of commercial space OR multi-tenant buildings that in combination have fifty (50) or more employees are required to provide the following for their tenants:
 - An on-site transportation coordinator;
 - Posted mobility management information;
 - Distributed mobility management information;
 - Un-bundled parking;
 - Preferential parking for carpool/vanpool vehicles; and
 - An annual mobility management education meeting for tenants and their employees.
- › These same property owners must require future tenants to provide the following through lease agreements:
 - Qualified transportation fringe benefits for employees; and
 - A guaranteed ride home program for employees.
- › Employers with 50 or more employees are required to provide the following for their employees:
 - An on-site transportation coordinator;
 - Posted mobility management information;

- Distributed mobility management information;
 - Qualified transportation fringe benefits for employees;
 - A guaranteed ride home program for employees; and
 - An annual mobility management education meeting for tenants and their employees.
- › The property owner of a parking facility is required to provide the following:
- Preferential parking locations for carpool/vanpool; and
 - Posted mobility management information.

The following sections discuss the land use types for which MMP programs will be implemented for the Project. A description of the MMP elements is presented in this section along with information on how those elements aid employees, visitors, and retail patrons getting to and from the Project Site. As there may be multiple tenants located within the Site, MMP obligations will need to be included as part of the lease language between tenants and the property owner. Verification of the ongoing conformance with this condition will be provided to the City of Somerville by the property owner either as a copy of the leases (with financial aspects and other non-MMP elements redacted) or via an affidavit signed by the owner and tenant(s) verifying that this language was included and agreed to in the lease. This documentation will be provided to the City prior to the issuance of the Certificate of Occupancy of a space by a tenant with fifty (50) or more employees.

General MMP measures to be implemented as part of this Project will involve promoting transit use and facilitating bicycle and pedestrian travel both through Project Site amenities and ongoing practices and programs. These will include providing bicycle racks, pedestrian friendly connections, and other amenities within the Project Site. The mixed-use nature of the Project will also effectively function as a TDM measure. Specifically, with the variety of uses proposed both within the Project Site and already in place in the surrounding area, the need to travel off-site by automobile for dining or shopping opportunities will be minimized.

The following plan first addresses general MMP measures that apply to the whole Project Site, then special programs for the office/R&D/lab uses and retail shops/restaurants.

General Measures

Transportation Management Association (TMA) Involvement

The Proponent is in the process of becoming a member of Assembly Connect, Assembly Square's Transportation Management Association, and this requirement will be satisfied within the timeframe noted above.

Transportation Coordinator

As required by the submittal requirement for MMP's, an on-site TDM coordinator will be designated for the Project. Alternatively, a representative from an approved Mobility

Management Association may be appointed in place of an on-site TDM coordinator. The work location and contact information for the TDM Coordinator will be provided to the Director of Mobility Division (the "Director") prior to the issuance of a Certificate of Occupancy. This person may be the office manager, human resources employee, or other individual serving a dual role in another job on the Project Site. Also, the specific office location for the TDM Coordinator will be shown on plans to be submitted to the Director prior to the submittal of the Building Permit application.

The person(s) in this role will coordinate with other organizations within Assembly Square to help promote a reduced reliance on single-occupant motor-vehicle travel to the Project Site. To that end, the TDM measures identified in the following sections will be implemented under the direction and supervision of this person. The final job description for this role will be determined over time, but the duties of the on-site TDM coordinator will include, but not be limited to:

- › Assisting site employees with ride matching and transportation planning;
- › Developing and implementing appropriate TDM measures;
- › Disseminating information on alternate modes of transportation and developing transportation related marketing and education materials;
- › Hosting an annual mobility management educational meeting for tenants and their employees (both the content of this meeting and associated posted material shall be provided to the Director for review and approval prior to the issuance of a Certificate of Occupancy);
- › Developing and maintaining information pertaining to pedestrian and cycling access to and from the Project Site;
- › Distributing transit maps and passes;
- › In tenants' lease agreements the Proponent will require that tenants provide an Emergency Ride Home, with a copy of the lease agreement language specifying that being provided to the Director for review prior to the issuance of the building's Certificate of Occupancy; and
- › Tenants will make efforts to seek qualified candidates located within one-quarter mile (i.e., walking distance) of the Project Site.

Any tenants with more than fifty (50) employees also will be required to submit their own MMP, along with a copy of the leases (with financial aspects and other non-MMP elements redacted) or an affidavit signed by the owner and tenant(s) verifying that this language was included and agreed to in the lease. This documentation will be provided to the City prior to the issuance of the Certificate of Occupancy of a space by these tenants.

Ride-Sharing Services

The parking needs for the Project will be lessened due to the nearby availability of public transit currently provided in the area. Furthermore, alternate means of travel, such as taxi, private ride services (Uber, Lyft, and others) should continue to reduce the parking needs for this area. The exact level of usage by these private ride-sharing services can be

quantified through post-opening monitoring studies to be conducted as discussed later in this document.

Use-Specific Measures

In addition to the general TDM measures outlined above, the following use-specific programs for the office/laboratory uses and retail shops and restaurants also will be provided.

Research & Development Laboratory Space

Research & development/lab employers within the Project Site will be required to implement appropriate TDM measures in their leases and to be overseen by the on-site building TDM coordinator. As not every TDM program will be suitable for every type of employer, such as telecommuting or flexible work hours, the on-site TDM coordinator will offer technical assistance to employers to evaluate potential programs and implement them when appropriate. Employer-based TDM measures may include the following programs:

- › Preferential carpool and vanpool parking within the parking garage and spaces near office building entrances within the parking garage as a convenience to commuters and to promote ridesharing;
- › Ride matching assistance managed by the on-site TDM coordinator so that employees find appropriate carpool and vanpool partners;
- › Sponsored vanpools and subsidized expenses;
- › Tenants will provide employees with Qualified Transportation Fringe benefits per current U.S. Internal Revenue Service Code, with a copy of the lease agreement language specifying that being provided to the Director for review prior to the issuance of the building's Certificate of Occupancy;
- › Provide telecommuting and flexible work hour options for employees in appropriate jobs;
- › Provide incentives for bicycle and pedestrian commutes, like covered bicycle storage, changing rooms, and shower facilities;
- › Hold promotional events for transit-riders, cyclists, and pedestrians;
- › Offer direct deposit to employees; and
- › The Proponent will consider providing preferred parking for low-emitting fuel-efficient vehicles and/or electric vehicle charging stations within the Project garages.

Retail/Restaurants

The Proponent will seek to attract a variety of retail shops, restaurants, and service tenants as ground-floor supporting uses. Ground floor retail/active uses will potentially include restaurant or café use, general merchandise, and/or service uses like banks and office supplies. As most of these businesses will be small shops, there will not be the same levels of TDM opportunities internal to each individual business as will be available

with larger employers, but employees who work on the Project Site will be able to take advantage of the transportation guidance and programs coordinated by the transportation coordinator.

The suite of TDM measures to be implemented in association with the retail shops are fewer than for traditional offices but will still have an impact in reducing single-occupant vehicle travel. The retail/restaurant MMP measures for those tenants with more than fifty (50) employees may include the following:

- › Ride matching services and transit information provided by the on-site TDM coordinator;
- › Tenants will provide employees with Qualified Transportation Fringe benefits per current U.S. Internal Revenue Service Code, with a copy of the lease agreement language specifying that being provided to the Director for review prior to the issuance of the building's Certificate of Occupancy;
- › Offer direct deposit to employees; and
- › As noted earlier, the Proponent will consider providing preferred parking for low-emitting fuel-efficient vehicles and/or electric vehicle charging stations within each of the garages serving the buildings comprising the Proposed Project.

Monitoring and Annual Reporting

The Proponent will conduct annual travel surveys as required. These surveys will be developed through consultation with the City to determine the number of Project Site employees utilizing public transportation, those traveling to the Project Site by private automobile, and those using car-sharing services. Employees also will be surveyed to identify those that bike or walk to and from work. The Proponent is committed to making reasonable efforts to achieve the City's goal to control the percentage of trips made by automobile at 50 percent or less, consistent with SomerVision. If annual monitoring and reporting identifies a shortfall in meeting this goal, additional mobility management programs and services must be implemented.

The annual update to the MMP, to be submitted to the City, will include the following the components.

- › Annual travel survey of employees;
- › Annual reporting of parking utilization for each parking garage and parking lot. This will be done through an inventory to be conducted for a representative weekday midday period when it can reasonably be assumed that the combined peak parking demand for employees and visitors would occur;
- › Biennial (every other year) counts of entering and exiting automobile trips for the parking garage proposed as part of the Project; and
- › A status summary of the MMP in place at the Site will be provided.

In keeping with standard practices for the City of Somerville, all the monitoring outlined above will occur during the months of April/May or September/October, unless other time periods are pre-approved by the City.

APPENDIX G: Previous XMBLY Approval Conditions

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<i>Section</i>	<i>Required Finding</i>	<i>Met</i>	<i>Not Met</i>	<i>To Address in SPSR-A</i>	<i>Waiver</i>	<i>Comment</i>
					Regarding all waivers:	The granting of the above waivers would result in a better site plan that furthers the purpose of the ASMD and will not cause detriment to the surrounding neighborhood.
6.4.12.a.1	Strict enforcement of such standards or requirements would run counter to achieving the objectives of the ASD Plan;	x			Regarding all waivers:	Limiting density (by restricting height) on a site so close to the T station and requiring the full number of loading docks would be in conflict with the ASD Plan objectives. The right of first refusal waiver is necessary to make it possible to finance the project with the affordable housing intended by the ASD plan and the City's zoning
6.4.12.a.2	The application is substantially consistent with the objectives of the ASD Plan and advances the objectives of the ASD Plan;	x			Regarding all waivers:	The project will achieve the objectives of the ASD Plan by developing a true mixed-use program, incorporating pedestrian and transit-oriented planning, and creating a series of new pedestrian-oriented public spaces, while minimizing environmental impacts by locating development on previously paved and/or otherwise disturbed land. All waivers will work to make this project more effective, improve its overall design, and ensure that affordable housing can be provided.
6.4.12.a.3	In the case of any Alteration of a Nonconforming Structure, a Change of Nonconforming Use, or a Major Amendment to an Approved PUD, such alteration, change or amendment shall conform, to the extent feasible, to the objectives of the ASD Plan	n/a			n/a	This finding does not apply in this case.

Appendix E: XMBLY (5 Middlesex Ave) PUD-PMP: Conditions

#	Condition	Evaluated by:	Timeframe for compliance	Notes
A. General				
1	<p>Approval is based upon the Preliminary Master Plan submitted by Vanasse Hangen Brustlin, Inc. dated May 7, 2018 (received by the Planning Staff as an update to the original submission stamped in at the City Clerk's office on March 15, 2018), including Chapters 1-6 plus the Appendices A-D. Any changes to the submitted application material that do not qualify as a minor PUD amendment must receive Planning Board approval, unless such changes are designed only to establish compliance with one of the conditions of this PMP approval.</p> <p>The approval of this PMP does not incorporate any of the following items: a) Any interior layout of buildings; b) Locations of and specifications for elements of the public right of way to be covered in the maintenance agreement per Condition #3 and #4; c) Design details within individual open spaces to be reviewed per Condition #5; d) Any off-site design.</p>	Planning	Continuous	
2	<p>The approval of this PMP shall be considered to be approval of the width of roadway and rights-of-ways. For each street, 100% street design plans, consistent with the PMP and the City's Complete Street Ordinance, must be filed with the City Engineer, Traffic and Parking Director, Transportation & Infrastructure Director and Planning Director for review and compliance with city standards and sound engineering practices. Applicant shall provide detailed roadway marking plans and cross sections, including bicycle and pedestrian design details (markings, signals, crosswalks, street furnitures, etc.) Bike lanes shall be provided as determined by the City's Transportation & Infrastructure Director. All modes must be considered and accommodated in these details, and NACTO minimum accommodations incorporated.</p>	Planning Director / City Engineer / T&P Director	Continuous	
3	<p>Applicant will work with the City to develop the long term maintenance agreement noted in Section 12.1B of the application form that will provide for the Proponent's commitments to the City relative to maintenance of the elements of the public right of ways including sidewalk treatments, street trees, landscaping , finishes, street furniture and other amenities. The City will not maintain anything that is not consistent with City standard, unless otherwise approved by the City Engineer.</p>	Planning Director / City Engineer	Prior to Start of Work Beyond Core & Shell of Building	
4	<p>Pursuant to #3 above, design of sidewalk treatments, street trees, landscaping , finishes, street furniture and other amenities that are to be maintained by the Applicant will be submitted to the City Engineer and Planning Director for review and approval.</p>	Planning Director / City Engineer	Prior to opening of any new public street in the project	

#	Condition	Evaluated by:	Timeframe for compliance	Notes
5	Applicant will work with the City to develop the long term maintenance agreement for the Useable Open Space as required in Article 17 of the SZO. The agreement shall specify the requirements for public access and private maintenance of useable open space of the Central Lawn and surrounding open space, as required by the SZO. The applicant shall build out and maintain all of the open space and allow public access to all of the useable open space in the plan as required by the SZO. The applicant will submit 100% construction plans for open space to the City for review and comment.	Planning/ Engineering	BP	
6	Applicant shall, per the agreement made with the OSPCD Economic Development Director, sign a covenant prior to the first SPSR-A application, which indicates that the amount provided towards public benefits and improvements. This is in addition to any required linkage payments per Article 15, on-site inclusionary zoning per Article 13, and the required provision and maintenance on land owned by the applicant. The covenant shall indicate that a portion of the total improvement may be provided by the applicant completing in-kind work. Unless otherwise permitted by the covenant, the funds may be dedicated to infrastructure upgrades of public property in and around Assembly Square, and shall include a substantial portion of the funding towards: a) improvements to Draw 7 and/or Foss Park; b) lighting and other improvements to the Kensington Underpass; c) highway sound barriers; and, d) improvements to transit infrastructure.	Planning/ Economic Development	Prior to submission of first SPSR-A	
7	Because of the history of the site and the intended use, the Applicant shall, prior to issuance of any demolition permit and/or any building permit for the project, provide to the Planning Department and the Inspectional Services Division: a) a copy of the Response Action Outcome (RAO) Statement, signed by a Licensed Site Professional (LSP) and filed with DEP, verifying that a level of no significant risk for the proposed residential use has been achieved at the site; or b) if remediation has not reached the RAO stage, a statement signed by an LSP describing (i) the management of oil and hazardous materials/waste at the site, including release abatement measures intended to achieve a level of no significant risk for residential use at the site, treatment and storage on site, transportation off-site, and disposal at authorized facilities, (ii) a plan for protecting the health and safety of workers at the site, and (iii) a plan for monitoring air quality in the immediate neighborhood.	Planning/ISD	Demolition Permit	
8	Notification must be made, within the time period required under applicable regulations, to the Massachusetts Department of Environmental Protection (DEP) if there is any release of oil, hazardous materials, or regulated hazardous substances at the site. The City's OSE office, Fire Department and the Board of Health shall also be notified.	OSE/FP/BOH	At time of release	

#	Condition	Evaluated by:	Timeframe for compliance	Notes
9	Prior to acceptance by the City, any civic space, thoroughfare, or utility and the land upon which or within which it is located that is to be conveyed to the city must be certified by the Applicant to meet all Federal, State, and local environmental laws and other standards as they are applied at the time of conveyance. The Applicant is responsible for the preparation of all documentation necessary for the conveyance of these facilities to the City.	Planning/ISD	Prior to acceptance	
10	The Applicant must contact the Engineering Department to obtain a street address prior to an SPSR-A application for the individual buildings.	Engineering	Prior to submission of first SPSR-A	
11	The applicant will submit a plan amendment to subdivide all public roadway right of way from development blocks, to be approved by the Planning Board, per the SZO, and filed with the Middlesex South Registry of Deeds. Any minor plan changes to this initial subdivision will be reviewed for approval by the Planning Director and Director of Transportation & Infrastructure as a minor plan change.	Planning	Prior to submission of first SPSR-A	
12	Applicant shall be required work with the Planning Director, City Engineer, and the Fire Chief as necessary, to rename the new thoroughfares. The Applicant may suggest names but should involve the Ward Alderman with the previously mention department directors, and note that street names that are the same or similar to names already used in Somerville shall not be permitted.	Engineering/ Planning	Prior to submission of first SPSR-A	
13	The applicant shall post the name and phone number of the general contractor at the site entrance where it is visible to people passing by.	Planning	During construction	
14	Approval is subject to the Applicant's and/or successor's right, title and interest in the property.	Planning	Continuous	
15	The Applicant, its successors or assigns, shall be responsible for maintenance of both the buildings and all on-site amenities, including landscaping, fencing, lighting, parking areas and storm water systems, ensuring they are clean, well kept and in good and safe working order.	Planning	Continuous	
16	SPSR-A applications under the PMP shall include information required to ensure compliance with this PMP decision, including but not limited to information noted as required in the findings (Appendix A, B, C and D).	Planning	Addressed with each SPSR-A application	
17	The Usable Open Space (Festival Streetscape, Pergola Plaza, Central Lawn, Gathering area, Rain Garden, Filtration Grove, and Promenade) must be submitted as a separate SPSR-A application and not included with any of the buildings' application packages. Final design should be coordinated with the Director of Transportation & Infrastructure.	Planning	SPSR-A	
B. Transportation / Traffic Circulation				
18	Applicant must identify a location for a future bike share station and provide a diagram of the larger bike network – including new infrastructure on Revolution Drive, Grand Union, and Foley Street.	T&I/T&P/ Planning	SPSR-A	

#	Condition	Evaluated by:	Timeframe for compliance	Notes
19	As a part of the continued effort to shift travel away from private cars, the Applicant shall provide sheltered and secure bike storage facilities in strategic locations, with each SPSR-A application.	Planning/T&I	SPSR-A	
20	Screening of above-ground parking from any thoroughfare, access easement, sidewalk, civic space, or open space by walls, screening, artwork, fences, planting or other means, must be specified in detail and approved by Planning Staff and the DRC.	Planning	SPSR-A	
21	The intersection of Middlesex Avenue and Mystic Avenue behind the existing building at 5 Middlesex will be further studied for redesign potential to a right in/right out T intersection. The Applicant will meet with the Director of Transportation & Infrastructure to review conceptual plans. If the conceptual plans are acceptable to the City, the Applicant will then convene a meeting between the Applicant's engineering team, the Director of Transportation & Infrastructure, and representatives from MassDOT.	Planning/T&I		
22	The Applicant and the Applicant's engineering team must participate in a future meeting between the Director of Traffic & Parking, the Director of Transportation & Infrastructure, and other development teams to review the intersection at Lombardi and Mt. Vernon as the TIS shows the LOS dropping. This meeting should also address potentially adding a video system (similar to Revolution Drive) to the signals at Middlesex and Foley.	T&I/T&P	SPSR-A	
23	All mitigation involving traffic signal upgrades must include specific discussion and documentation of the ability of all controllers to be left in place (before, during, and after construction) to fulfill the functions required of them by proposed mitigation.	T&I/T&P/ Engineering	SPSR-A	
24	All City of Somerville traffic control equipment and roadway elements must meet City specifications and standards unless they are otherwise approved by the City Engineer and are maintained by the Applicant under the maintenance agreement.	T&P/Engineering	Continuous	
25	Applicant shall provide street lights that meet City standards on all public streets where lights are to be maintained by the City.	Engineering/ DPW	Continuous	
26	The Applicant will be responsible for the initial cost of parking meters and cost of construction/installation of the parking meters in coordination with and to the standards of the Director of Traffic & Parking and the City Engineer.	T&P/Engineering	SPSR-A	

#	Condition	Evaluated by:	Timeframe for compliance	Notes
27	Any Hotel use must have access to a shuttle van or bus, and provide complementary scheduled or on-demand guest shuttle services between the hotel and Logan Airport in order to reduce automobile trips between the airport and the hotel. The Applicant may coordinate a shared shuttle between other hotel operators in the ASMD. Conceptual plans for the operation of this service must be approved by the Director of Transportation & Infrastructure prior to the issuance of the Certificate of Occupancy for the Hotel. Revisions to operations at any time require approval by the Director of Transportation & Infrastructure.	T&I	CofO	
28	The property owner must have a signed contractual agreement to join or be a member of the Assembly Square Transportation Management Agency (TMA) established by Federal Realty and others. Proof of membership must be submitted to the Director prior to the issuance of the any Certificate of Occupancy for any building.	Planning/T&I	CofO	
29	The Applicant must submit a revised MMP to the Director prior to the submittal of any SP, SPSR, DSPR applications for individual buildings. The revised plan must provide an updated Mode Split/Trip Generation analysis using the Transportation & Infrastructure Division's required methodology and Average Vehicle Occupancy and Mode Splits from the Means of Transportation to Work (B08301) data for Census Tract 3398.01 from the U.S. Census 2016 5-year Estimates.	Planning/T&I	SPSR-A	
30	In the revised MMP, the Applicant must commit to achieving the City's goal to control the percentage of trips made by automobile at 50% or less, consistent with SomerVision. If annual monitoring and reporting identifies a shortfall in meeting this goal, additional mobility management programs and services must be implemented	Planning/T&I	Perpetual	
31	The property owner of Block 21, Block 23, Block 25, and Block 26 must submit a MMP in accordance with the Director's submittal requirements prior to or simultaneously with the development review application (SP, SPSR, DSPR) required for each site.	T&I	SPSR-A	
32	In any lease agreement for a tenant with fifty (50) or more employees, the property owner of any building shall require the leasee to submit a MMP in accordance with the Directors submittal requirements for approval prior occupancy of the leased space. Standard lease agreement language to implement this condition must be approved by the Director prior to the issuance of any Certificate of Occupancy for the building. To verify ongoing conformance, the property owner must provide either a copy of the executed lease agreement or an affidavit signed by the owner and tenant verifying that this language was included and agreed to in the lease.	T&I	CofO	

#	Condition	Evaluated by:	Timeframe for compliance	Notes
33	The cost to purchase, rent, or lease floor space must be 'un-bundled' from the cost of parking. Parking spaces must be rented, leased, or sold as an option rather than a requirement of the rental, lease, or purchase of a dwelling unit or non-residential floor space. Standard lease agreement language to implement this condition must be approved by the Director prior to the issuance of any Certificate of Occupancy for the building. To verify ongoing conformance, the property owner must provide either a copy of the executed lease agreement or an affidavit signed by the owner and tenant verifying that this language was included and agreed to in the lease.	T&I	CofO	
34	The property owner must purchase and install a bike-share docking station with at least fifteen (15) docks and nine (9) shared bicycles. The station must be installed in a location approved by the Director prior to the issuance of the Certificate of Occupancy for Block 23 (the 8-story residential building at the corner of Grand Union Boulevard and Revolution Drive). NOTE: If a station with more docks is provided, additional bikes must be included to maintain a 0.57 bike to dock ratio.	T&I	CofO	
35	Annual Reporting to track, assess, and report on the implementation of the Mobility Management program as required by the Somerville Zoning Ordinance and the Planning Board's Mobility Management Plan Submittal Standards must be conducted at the same time each year, as determined by the CO for the first building, subject to the approved Mobility Management Plan.	Planning/T&I	Continuous	
36	Approved Mobility Management Plans are transferable by and among private parties, contingent upon the new owner agreeing to continue to operate in accordance with the previously approved Mobility Management plan, as conditioned. Should the developer elect to transfer some portion or all of the development subject to this Mobility Management Plan, commitment to the previously approved Mobility Management Plan is required by the new property owner.	Planning/T&I	Continuous	
C. Infrastructure				
37	Infrastructure must be designed to meet all requirements and standards of the City of Somerville and its relevant departments (including, but not limited to, the City Engineer, Department of Public Works, Inspectional Services, Traffic & Parking, Fire Department, and the divisions of the Mayor's Office of Strategic Planning and Community Development) and all other legal requirements for the installation of services within public rights-of-way. Subsequent SPSR-A applications must include reasonable written evidence establishing that such infrastructure is sufficient to support the proposed development, that all details are designed to City standards, that installation, unless otherwise included in capital project work of the City, is done without cost to the City, and that installation will be functionally adequate and completed at the appropriate time in the course of the phases of development.	various	SPSR-A	

#	Condition	Evaluated by:	Timeframe for compliance	Notes
38	All new sidewalks will be installed by the Applicant in accordance with the specifications of the Director of Transportation & Infrastructure and the City Engineer.	T&I/T&P/ Engineering/ DPW	SPSR-A	
39	Applicant shall conduct additional hydraulic analyses to ensure that the City's system is capable of meeting the adjusted demands throughout the project. Applicant shall meet fire flow requirements while maintaining a minimum pressure of 20 psi at the fire location. In accordance with DEP guideline, a minimum pressure of 35 psi shall be maintained throughout the distribution system during normal demand conditions.	Engineering/Fire	BP	
40	Applicant shall provide individual calculations to determine the sizes necessary for the water connections to each property. The proposed service connections to each of the new buildings shall be shown on further design drawings.	Engineering	SPSR-A	
41	Design and construction phasing of the stormwater management system shall be subject to review and approval by Engineering and the Director of Sustainability & Environment to ensure compliance with City standards and best practices for design and ongoing maintenance.	Engineering/OSE	SPSR-A	
42	Applicant shall provide a detailed soil erosion control plan with each SPSR-A application and prior to construction.	Engineering/ISD	SPSR-A/BP	
43	The Applicant is responsible for the installation of all necessary private infrastructure and utility improvements (such as electrical, telephone, data, CATV, and natural gas utilities), both on and off site, needed to support the development proposed and its constituent phases, as approved and conditioned, and such lines and equipment shall be placed underground from the source or connection.	Wiring Inspector	Installation of Utilities	
44	The Applicant must contact the Engineering Department to coordinate the timeline for cutting or opening the street and/or sidewalk for utility connections or other construction. There is a moratorium on opening streets from November 1st to April 1st and there is a list of streets that have additional opening restrictions.	Engineering	BP	
45	The Applicant shall at his expense replace any existing equipment (including, but not limited to street sign poles, signs, traffic signal poles, traffic signal equipment, wheel chair ramps, granite curbing, etc) and the entire sidewalk immediately abutting the subject property if damaged as a result of construction activity. All new sidewalks and driveways must be constructed to DPW standard.	Engineering	CofO	
46	All construction materials and equipment must be stored onsite. If occupancy of the street layout is required, such occupancy must be in conformance with the requirements of the Manual on Uniform Traffic Control Devices and the prior approval of the Traffic and Parking Department must be obtained.	T&P/DPW	During construction	

#	Condition	Evaluated by:	Timeframe for compliance	Notes
47	<p>Applicant shall be responsible for all design, construction, maintenance and repair of all roadways, streetscape including street lighting and other street furniture furnishings, and parks and open space which are part of the PUD. Applicant shall be responsible for the design and construction of water, sewer, and storm drainage systems serving the PUD. Applicant shall be responsible for the usage costs of electricity, gas, water, cable and other utilities furnished to the PUD, and for trash removal. The City shall be responsible for the maintenance and repair of water, sewer, and storm water conduits, and traffic signals on public ways.</p> <p>The City shall also be responsible for snowplowing and street cleaning, including the cleaning of catch basins, except that the City shall not be responsible for any LID tree boxes without prior approval of the City Arborist and the City Engineer. The Applicant shall be responsible for designing, constructing, maintaining, and repairing similar "Smart Technology" required by MEPA. All utilities shall be designed and installed in accordance with the City of Somerville's standards and specifications.</p> <p>Notwithstanding the foregoing, if the maintenance agreement includes provisions that are inconsistent with this condition the maintenance agreement shall supercede this condition.</p>	Planning Director / City Engineer	Prior to Start of Work Beyond Core & Shell of Building	

D. Urban Design and Design Guidelines				
48	Each individual building provide interior disposal and storage systems for trash and recycling with locations clearly indicated on site plans. Storage areas shall be inside of the structure and screening or loading dock doors must be designed as an integral part of the architecture and the building elevation and remain closed unless in active use.	Planning Director / DPW	Addressed with each SPSR-A application	
49	Any transformers should be located as not to impact the buildings or landscaped area, and shall be fully screened to the extent permissible by code.	Planning/ISD/ DPW	SPSR-A	
50	There shall be a minimum of one tree for each 1,000 sf of required landscaped area under SZO §10.3 installed and maintained in compliance with the American Nurserymen's Association Standards and in accordance with the City Arborist.	Planning/T&I	SPSR-A	
51	Signage shall be subject to separate review and approvals by the Design Review Committee and the Planning Board, as required and customary.	Planning	SPSR-A	
52	All storefronts and retail signage shall be consistent with the Assembly Row Storefronts and Signage Design Standards. Storefronts or retail signage that is inconsistent with the guidelines shall be provided to DRC and Planning Board for review and approval.	Planning Director	Building Permit for retail unit and retail signage	
53	This approval does not constitute approval for any signage on the building above the retail level except for the building addresses at entryways and garage directional signage. The design of these signs shall be submitted to Planning Staff for review and approval. This approval does not constitute approval for any of the roof signs or signs at the top of the towers.	Planning Director	Building Permit for Signage	

#	Condition	Evaluated by:	Timeframe for compliance	Notes
54	To the extent possible, all exterior lighting must be confined to the subject property, cast light downward and must not intrude, interfere or spill onto neighboring properties.	Planning	SPSR-A	
55	As part of each site plan review submittal, the Applicant shall provide calculations showing that the percentage of open space and usable open space meets the zoning requirement for a PUD-A within the ASMD.	Planning	SPSR-A	
56	Applicant shall ensure that all trees meet the species, caliper, well size, and planting specifications of the City Arborist.	T&I	SPSR-A	
57	Each subsequent SPSR-A application submitted under this PUD-PMP must identify vulnerabilities and/or risk for each parcel based on the City's Climate Change Vulnerability Assessment. The application should clearly identify the extent and nature of planning/design interventions necessary to mitigate those risks. To ensure effective strategies for resiliency by preparing for weather and flooding impacts, the Director of the Office of Sustainability & Environment shall define specific appropriate expectations for responses to this condition, and the applicant shall provide these responses with each PUD-PMP application.	OSE/Planning	SPSR-A	
58	Each subsequent SPSR-A application submitted under this PUD-PMP must document how the proposed development, including civic spaces, public realm improvements, and buildings, will help to reduce the urban heat island, assist in the City's stated objective to be Net Zero by 2050, and assess whether the infrastructure presents an opportunity for reducing demand and/or district energy solutions.	OSE/Planning	SPSR-A	
59	Each subsequent SPSR-A application submitted under this PUD-PMP must submit the necessary LEED worksheets along with narratives explaining the methods of compliance with each point achieved.	OSE/Planning	SPSR-A	
60	Applicant shall provide material and color samples for all exterior cladding, trim, windows, and doors to Planning Staff and the Design Review Committee for review, comment, and approval as part of the review required with each SPSR-A application.	Planning	SPSR-A	
61	Applicant shall provide an on-site mock-up or final building material samples (including color and texture) to Planning Staff and the Design Review Committee for review, comment, and approval prior to the issuance of a Building Permit.	Planning	BP	
62	Where sides or backs of buildings face a civic space, they must incorporate (physically or visually) strategies that address the public frontage and impact of these spaces. These strategies need not be related to retail spaces or functional entrances, and can be small in scale. But, these spaces should be ambitious, active and should encourage creativity and engagement. These spaces may include, but are not limited to, public art installations or display cases for artwork, large scale supergraphics or murals, green walls, and/or artist/maker space, etc.	Planning	SPSR-A	

E. Affordable Housing

#	Condition	Evaluated by:	Timeframe for compliance	Notes
63	A draft Affordable Housing program must be provided by the Applicant showing the anticipated affordable units - types and sizes - in each DSPR application.	Planning	SPSR-A	
64	The AHIP must be approved by the OSPCD Housing Division and executed prior to issuance of Building Permit.	Housing	BP	
65	Written certification of the creation of affordable housing units, any fractional payment required, or alternative methods of compliance, must be obtained from the OSPCD Housing Division before the issuance of a Certificate of Occupancy (C.O.). No C.O. shall be issued until the OSPCD Housing Division has confirmed that the Affordable Housing Restriction has been approved and recorded and the developer has provided the promised affordable units on-site.	Housing	CofO	
66	No Certificate of Occupancy shall be issued until the OSPCD Housing Division has confirmed that: (for Condominium Projects) the Condominium Documents have been approved and the Developer has agreed to a form of Deed Rider for the Affordable Unit(s), or (for Rental Projects) the Developer has agreed to and executed a Memorandum of Understanding for Monitoring of the Affordable Unit(s).	Housing	CofO	
67	In the circumstance where the applicant proposes and builds a condominium building with individual units for sale upon completion of the building, the applicant may request a Section 13.3.5 waiver and the City will determine the appropriateness of the waiver on a case by case basis. b. In the circumstance where the applicant proposes a building that is used as rental apartments when first opening: the waiver is approved, with the exception under item (c); c. In the event that the a rental building is converted to condominium use at a future date: 1. the waiver will expire; 2. the applicant will be expected to maintain the units at the affordable rental rates that were available prior to the conversion, either by selling them under Section 13.3.5 at a price that will permit the continued use of the units as affordable rental units at current rental rates, or by working with the OSPCD Housing Division on an alternative strategy to meet this condition.	Housing	CofO	
F. Linkages				
68	Affordable Housing Linkage Fee payments will be required to be paid to the Somerville Housing Trust Fund before a CO is issued as required by Section 15 of the SZO as amended.	Housing	CofO	
69	Jobs Creation and Retention Linkage Fee shall be paid to the Somerville Municipal Job Creation and Retention Trust before a CO is issued as required by Section 15 of the SZO as amended.	Economic Development	CofO	

#	Condition	Evaluated by:	Timeframe for compliance	Notes
70	Any new connection to the City's combined sanitary and drain system, or any increase in flows to an existing sanitary or drain connection require infiltration / inflow (I/I) mitigation. The Applicant shall work with the City Engineer to establish mitigation requirements, which will include an I/I fee as established by City policy, prior to building permit being issued. Those requirements must be satisfied before a Certificate of Occupancy is issued.	Engineering	CofO	