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**MAYOR'S OFFICE OF STRATEGIC PLANNING & COMMUNITY DEVELOPMENT**  
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**TO:** Chairman Kevin Prior and the Members of the Somerville Planning Board  
**FROM:** George Proakis, Director of Planning  
Sarah Lewis, Senior Planner  
**DATE:** November 28<sup>th</sup>, 2017  
**RE:** Union Square Coordinated Development Special Permit

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This memo is designed to provide an update on the Union Square Coordinated Development Special Permit (CDSP) application (also sometimes known as the Coordinated Development Plan – or just CDP). The memo serves as an addendum to the original staff report, by providing clarifications, and additional information – particularly in response to the extensive public comment at the first Planning Board meeting. Attached to the end of this memo is an updated finding and updated set of conditions (with redline adjustments) to specifically address some of the issues in the memo.

**1. Background**

To provide some background, the intent of the new Union Square zoning overlay district (that was approved in June) is “To facilitate the coordinated redevelopment of multiple parcels located within close walking distance to the future Union Square T-station and accommodate mixed-use, mid-rise and high-rise development that will support the transformation of Union Square into urban employment center.”

The zoning was crafted to implement the goals and vision of the Union Square Neighborhood Plan which was a long and open process involving many community stakeholders (<https://2xbcbm3dmbsq12akbzq9ef2k-wpengine.netdna-ssl.com/wp-content/uploads/2014/12/Union-Square-NP-FINAL-WEB.pdf>). The neighborhood plan was built upon the Citywide SomerVision comprehensive plan, a document which identified Union Square as an area for transformation. The plan identified growth within the D-blocks that are covered by the CDSP application, but also anticipated future changes in Boynton Yards and the area east of Union Square including the Target store site and adjacent properties. Neighborhood plans are not regulatory but are intended to set the general direction of desired growth and development. They are implemented through zoning, in some cases through revitalization plans (as we have in Union Square), as well as through legal agreements with applicants.

In the case of US2, a number of legal documents have been put in place between the Applicant (US2), the Somerville Redevelopment Authority, and the City that govern the development – the Master Developer Designation Agreement, the Master Land Disposition Agreement, and the Development Covenant.



Since this process is new, an overview of the two-stage permitting process required by the Union Square Overlay District (USOD) is provided.

In general, the CDSP is a framework for the overall development of buildings and civic spaces, and therefore is – essentially – conceptual. At the next step, Design & Site Plan Review (DSPR) is required. This process is required for each individual building, civic space, and thoroughfare within the development. It requires more detailed designs including urban design and architecture.

This two-step process was developed for the citywide zoning overhaul to ensure that larger developers are required to create a mix of commercial and residential space, and to create quality publicly accessible ‘civic spaces’. Without this strategy, it would be difficult to require quality civic spaces and a good commercial mix of development. But, with too much detail in the early phases of this strategy, it would be impossible to make reasonable adjustments as market demands and community needs change, and as time goes forward.

The Coordinated Development Special Permit (CDSP) is, therefore, the first step required as a prerequisite to the development review for any individual lot, civic space or thoroughfare (street). As specified in the Somerville Zoning Ordinance (SZO) Section 5.8.1, the purpose of the CDSP is:

“A. To allow for the review of a multi-lot development proposal that:

1. establishes general development phasing parameters;
2. provides analysis of impacts related to the build out of all phases; and
3. identifies subsequent development review necessary as multi-phased development proceeds across the various lots.”

As noted above, this is a framework plan establishing general locations for buildings, open spaces, and streets. Block & Lot Plans show parcel lines, not building footprints, to define an outline for future development across multiple sites, without requiring detailed site plans or architectural and engineering drawings. The detailed information about streets, civic open spaces, and buildings will be provided in subsequent individual applications. The anticipated development program and massing are shown conceptually to help illustrate the overall intent. (The submittal requirements that were provided to the Applicant are attached at the end of this memo for general reference and the application documents can be found at <https://www.somervillema.gov/departments/union-square-planning>.)

The CDSP is not as detailed as an individual building proposal, because that step comes later with the DSPR submittals. It is, however, more detailed than the other two-step planning process that we have in Somerville, the preliminary master plan (PMP) under the city’s Planned Unit Development ordinance (the process used at Assembly Square, for example). The CDSP is more detailed by making earlier determinations of use, lot platting, civic space locations, and uses than the typical PMP. But, it is not designed to address detailed streetscape and urban design for each street, building or civic space.

Design & Site Plan Review (DSPR) is required for the development of any individual lot as a building or civic space, the construction or reconstruction of any thoroughfare, and the subdivision of a development site. DSPR is the detailed application required for each proposed building, open space, and street. Under the Union Square Overlay District, neighborhood involvement is a key part of DSPR. Two neighborhood meetings are required for each individual project along with a meeting of critique and discussion by the Design Review Committee. These steps are also required earlier in the process than in other city development review processes.

## 2. Questions and Answers

Below are the questions asked at the last hearing, along with replies and updates.

### a. **Open (Civic) Space**

Where does the neighborhood park go? Why does it go there?

The neighborhood park is a requirement of the zoning district which came directly from the neighborhood planning process. Through the zoning review by the Board of Aldermen, the zoning was refined to require a neighborhood park of a minimum of 27,000 square feet. The Union Square Neighborhood Plan suggested that D4 could work for a neighborhood park, although this site had considerable design challenges as an open space. The zoning permitted the applicant to identify the location as a part of the CDSP, and the CDSP application process required analysis to ensure that an appropriate site was chosen.

US2 is now proposing the neighborhood park on D1. The location of the neighborhood park was chosen based on the Civic Space Study that was required by the city, and an analysis of the pros and cons of three alternatives (keeping the D4 site or moving to D7 or D1). This applicant's reasons for selecting D1 were presented and discussed at a neighborhood meeting that was specific to the park issue, on October 18<sup>th</sup>. This updated proposal includes a smaller civic space on D7, and a return to residential use (as proposed as the alternative in the neighborhood plan) on the D4 site.

The D1 location provides an open space to the east side of the neighborhood, and meets a number of citywide needs. While the detail design and programming will be determined at a later DSPR application, Planning Staff believe this location meets the requirements specified in the zoning and provides a good complement to, but does not compete with, the Union Square Plaza as the heart of the neighborhood.

Some residents testified in support of this decision at the last meeting, while others were in opposition, preferring the D7 site. There does not seem to be any support in the community for returning the space to the D4 site.

For more info, see analysis on pp 66-71 of the application, and Appendix 2, pages 142-149

The staff recommendation included a condition that would allow further discussion on this issue, and permit the Planning Director to shift the park to D7 if the community determines that they would prefer this site. This would allow the CDSP Phase 1 development to move forward while this discussion continues. The applicant has not objected to this strategy, and expressed a willingness to review the issue. Nonetheless, at this time, the staff still supports the D1 park location.

Since the last meeting, some of the D7 proponents have met with US2 to further discuss park location and design. Both the neighbors in this meeting and US2 have proposed some adjusted conditions to address this ongoing conversation, and the staff has edited these proposals and incorporated them into the staff's recommended updated conditions.

Can the garage wall on D1 be pushed back to reduce shadow impacts? What will be on this wall? What uses will be on the first floor and how far will they wrap the corner?

As the D1 Block is designed, refinements can be studied to determine the final location of the buildings in relation to the neighborhood park. (Please keep in mind that the Block & Lot Plans in the CDSP application show parcel lines only, and buildings may be and in some cases must be, set back from those parcel lines.)

There will be active ground floor uses along Somerville Avenue and Washington Street in the D1 structure. These active uses, such as shops, cafés, arts and creative industry spaces and/or other

commercial services, are required to turn the corner of the building for a depth of at least 30 feet. Therefore, at a minimum, the first 30 feet off each corner will be active.

The remaining wall of the building – a 4 story base with an additional 6 stories setback 40' from the park façade – is required by zoning to meet specific design standards. The future submittals for each DSPR (building, open space, and/or street) require review and guidance from the Design Review Committee, as well as 2 neighborhood meetings. This process is designed to assist the applicant's team in finalizing materials and architectural articulation appropriate to the specific site. Staff expects the DSPR applications for this civic space and this building to address this issue.

*What about the shadows? Does this meet the solar orientation requirements here?*

The D1 park's front lot line faces south, and the park will have sun exposure during many periods of the day and seasons. While there are concerns about solar orientation on D1, the impacts do permit times of both sun and shade. The orientation, while not ideal, is far from fatal for this park location, and the staff believes that the issues of sunlight here are outweighed by the other benefits. The zoning allows for this solar orientation - see USOD Zoning 6.8.9.B (formerly 6.7.9.B).

In existing urban environments with fixed infrastructure, it is often difficult to optimize solar orientation for buildings and open spaces. And, while the D7 site today does provide more daytime sun, much of that sun is dependent upon the private owner of the Reliable Market site not fully building out their zoning entitlements under the current underlying CCD zoning. If that site, which is not a part of the CDSP application, is developed by its current or a future owner, it will bring substantial new shadows to a key portion of the D7 park area.

The application includes the required shadow studies to show the anticipated amount of sun and shade in each of the civic spaces at different times of year. While these are helpful in generating a general idea of the way the proposed buildings cast shadows, the applicant's studies do not show shadows for existing buildings. Therefore, without the current shadows, it is difficult to model how much sunlight will actually reach the ground.

*Have they maximized the amount of open space they can provide? Can they provide both the D1 and the D7 park?*

The process of developing a plan for Union Square has included extensive conversations about publicly accessible open space, and those conversations have continued to evolve with the plan. The neighborhood plan identified a civic space program that is typical for an urban neighborhood. The community wanted more. This was clearly expressed in the zoning hearings, and the Board of Aldermen responded, eventually requiring the 27,000 square foot neighborhood park as well as a greater percentage of civic space across all of the D blocks. This application meets the zoning requirements and therefore substantially exceeds the neighborhood plan's proposed civic space.

The application shows open spaces on all of the D Blocks except D5. There is a 6,500 square feet civic space shown on D7 that could be a pocket park, green, pocket plaza, playground, or community garden - the final space type will be determined at a future DSPR application. However, only one Neighborhood Park is required by zoning and it is shown on the eastside of the D1 Block with access from Washington Street, Somerville Avenue, and Merriam Street.

To create a similar space on D7 would require removing an additional 20,000 square feet from the developable land for open space. When additional open space was added to the project during the zoning process, it was balanced with additional height on certain buildings. The height was necessary to keep the jobs/housing balance and the anticipated revenue to community benefits and taxes. To further add to open space would require additional height again, but the zoning does not allow it. Furthermore, even if zoning did allow for it, there are limited places available for increased height and unit counts, due to buildings designed to meet the maximum heights permitted under specific construction types in the

building code. Therefore, as with any development, this project has a carefully balanced set of trade-offs that were negotiated during the zoning process.

Can the D7 park get bigger? What happens if it does?

As mentioned above, increasing the amount of open space often requires decreasing the amount of building. This is a delicate formula. The D7 park has been sized and sited to create both a successful civic space in a location identified as a priority for housing. As the site moves into the DSPR process, it may be possible for the pocket park on D7 to become larger, but in a format that permits the housing, supporting parking and civic spaces to work successfully on this block.

Theoretically, it could be possible for a smaller building to be designed on D7 allowing for a larger pocket park, providing those units can be added to another D Block to make the overall development work, although realistically making the change would require a height variance on another D-block building. While there may come a time to employ such a strategy, the staff does not recommend it be endorsed in the CDSP. If future discussions lead in that direction, the overlay would need an amendment, to put that residential use on top of another building.

From an urban design perspective, the Planning Division staff intends for there to be a building located on the corner of Warren Avenue to maintain the street wall along Bow Street, where historically was once a 4-5 story mixed use building. This is highlighted in the neighborhood plan.

The staff is working with US2 and neighbors to continue discussions about this topic as the CDSP moves into implementation phases. This is addressed in Condition #30 of the staff recommendation, and that condition has been updated – see attached.

Why should the City accept a payment in lieu of open space?

A payment-in-lieu of open space for up to 10% of the required area can be requested during the CDSP process. While the request has been made, the applicant may exercise some or all of this request.

While open space within the D blocks is valuable, the City's greatest documented need is for athletic fields. A payment could provide funds for acquiring land in area more suitable for athletic fields than the D-blocks in the core of Union Square. The Planning Division staff does not object to conditioning that any payment must be applied in the general vicinity of Union Square. The most viable choice would be to use the funds to acquire the MBTA staging site at the end of Charlestown Street, which is identified as an open space site with fields in the Neighborhood Plan.

For more info, see pp 228, 236 and 242 of the CDSP application.

How much open space is not being built? What does this mean?

US2 has requested a special permit for **up to** 10% of open space to be off-site, as they work through the DSPR review process public hearings. But, the CDSP identifies that all but 1,541 square feet of required civic space is identified in the application – far less than 10%.

Even with that smaller gap in open space, the area of D2 that is currently part of the MBTA easement for the Green Line Station may eventually be able to become a civic space. In this case, the requirements will be met, and there will be no need to exercise the special permit and collect payments.

As the project proceeds and accurate surveys are provided along with additional land agreements and transfers, it will be easier to determine during the DSPR applications whether there is a shortage of provided open space and whether a payment is required. But the Planning Division recommends approving the special permit, permitting off-site open space, and using the funds in the neighborhood, to ensure we have the right space in the right locations throughout the neighborhood.

Nonetheless, staff recommends granting this special permit, and permitting flexibility to ensure that total open space is met – either on-site or through the off-site payment.

When do we get payments? How much is the payment? Will the payment be set in 2017/18, or will it rise if payments are made later in the process?

The details regarding any payment-in lieu schedule will be outlined through conditions at the time of the first DSPR application, which is likely to be the D2 Block. The Planning Board approved a Payment in Lieu of Open Space fee equal to \$100 per square foot of unbuilt open space, which is adequate funds to purchase a square foot of open space elsewhere, and convert it into a high-quality public space. The Planning Board may increase the fee by revising the Rules and Regulations. The applicant would have to pay the fee in place at the time that they make the payments. The staff will time the payment to have the funds available when open spaces can be purchased, but not before US2 determines if they can address the open space on-site.

What will the open space design look like?

The design of all the open spaces will be determined through the DSPR process for each parcel – including at least two neighborhood meetings for public input. Remaining actively and positively engaged in the process is the best way to help with open space design and programming.

How do all of the open spaces link together? How do they connect to the City's public realm improvements?

The open spaces are linked as a network via the City's public realm improvements. All D Blocks require a minimum of 12 feet in width for the sidewalk which means in some instances, the pedestrian infrastructure is larger than the currently public right-of-way, thereby requiring some of this requirement to be met by setting buildings further back on the development parcel.

The Applicant and multiple City departments have been working to coordinate streetscape design, stormwater management efforts, and transportation solutions.

The proposed civic space plan on page 50 of the CDSP application is based on the extensive civic space study required of applicants. That study requires analysis of existing and future conditions and need. It is linked with the public work ongoing on streetscape and public park improvements. In the interest of illustrating this convergence of private and public work, we have attached a plan of the district, showing these improvements together on one sheet. As the DSPR process goes forward, there will be an opportunity to introduce further refinement to this plan.

Is the parking lot behind the post office part of the open space?

No, the existing parking lot and loading area behind the Post Office is not currently counted as part of the required Civic Space or Public Realm Improvements. Loading and drive lanes are excluded from the open space calculation, per zoning. See open space plan on page 50 and 51 of the application.

What happened to the open space at the front of D1, and the space on D6? Weren't those in the neighborhood plan?

The neighborhood plan is a vision for the growth of Union Square. The open spaces that were initially illustrated in the plan are, in some circumstances, different than those shown in the CDSP. But, that open space is not lost. As noted above, the CDSP application has more open space than the neighborhood plan. These spaces have generally been added to the larger open spaces now shown on the D1 and D6 blocks – the Neighborhood Park and the Through-Block Plaza.

The west side of the D1 block facing Union Square Plaza will still have relief. The CDSP Lot and Block Plans do not show building setbacks. Zoning setback minimums and sidewalk width minimums will be evident during the DSPR, as it requires the building to be set back slightly and, therefore, the site will

have a larger sidewalk-type pocket plaza. This will provide views up Prospect Street from the intersection of Somerville Avenue to the historic Post Office yet it will not be so large as to detract from the importance of Union Square Plaza.

The site on the D6 corner was shifted, permitting the expansion of the space at the center of the block into a larger mid-block passage civic space type, and it moves the outdoor space further away from the traffic at Prospect Street and Somerville Avenue.

#### **b. Indoor Community Space**

Can the Planning Board request/require an indoor community center or community space as a part of this project?

Per zoning, there is no requirement for indoor civic space, but there is nothing that limits the ability for the Planning Board to make such a request as a part of the CDSP. This would be viewed as a commercial use which means that this space could be located in any of the 1.4 million square feet of commercial space identified in the CDSP. In some cases, the civic uses may also qualify as arts/creative spaces, which are also identified in the CDSP. Civic space uses can range in size, scope and operational requirements from a simple meeting room to a library/resource/media center to an art gallery to a YMCA. In fact, each of these ideas has been floated at some point in the Union Square planning process.

The specifics of the uses which could meet this need are not known at this time, and they would ultimately drive key decisions like the location of the space and the design requirements of the space. While there was much testimony about the need for this type of space, it is quite possible that many of the community members could have very different ideas of what this space would be and how it would be used. Therefore, it is difficult to be specific about the need, and identify a detailed strategy at this time.

US2 has expressed a willingness to work with the prospective civic space users in order to include a civic use in the project. US2 has also committed to working with the newly created neighborhood council to address community benefits. The Planning Division staff is interested in further neighborhood conversations on this issue, and generally believe that this is a topic that could benefit from discussion within the neighborhood council.

This leaves two options available to address the issue:

- One is to hold up the CDSP and spend many months on this issue. This is not advisable, as significant delay would impact the ability to fund the streetscape/sewer/drain improvements in the neighborhood and the Green Line, both of which have substantial impacts on the City budget.
- The alternative is to establish conditions to address this issue, and ensure that conversation continues on this topic with a timeline for periodic updates, so the Planning Board can continue to monitor progress on this issue.

Both US2 and Union Square Neighbors have suggested language for conditions to address this issue. Staff suggests the following condition, to incorporate the intent of both strategies:

*“The Applicant will work with the Neighborhood Council to allow in the design process for the inclusion of indoor civic space. The Applicant shall make reasonable efforts to identify the appropriate tenant or tenants for lease of this space for civic uses within the appropriate development block and to consummate a lease with said tenant. The Applicant shall provide updates to the Planning Board on these efforts with the submittal of the DSPR for each block.”*

### c. Land Ownership & Permitting

The SRA prepared an urban renewal plan for the Union Square area, which was approved by the Commonwealth of Massachusetts Department of Housing and Community Development in November 2012 (often referred to as the “Revitalization Plan”). This gives the SRA the capacity to acquire the land to implement the revitalization plan. Nonetheless, the city would prefer that US2 seek to purchase each parcel without the SRA doing the acquisition.

At this point, the D2 block is publicly owned. The MLDA and Covenant address the D2 Block in detail and how it will be conveyed to US2. US2 also has an agreement to purchase a portion of D3. For the other blocks, they will need to be owned by US2, or developed in collaboration with US2, to fill out the expectations of the neighborhood plan and the zoning. This has led to a number of questions, and those are addressed below:

*How does this work with some land not owned by US2? How do we get community benefits if a non-US2 developer builds on their own land?*

Redevelopment project sites often include land not owned by the applicant at the time of initial approval. For example, the Central Steel site was not owned by the SRA or by Federal Realty when the initial Assembly Row application was filed and approved. In the months that followed, Federal and Central Steel worked out an agreement for Federal to purchase this property, Central Steel moved, and now the site is occupied by the Assembly Row development.

A non-US2 developer developing any of the D blocks would first need joint consent of the SRA and US2, as the designated master developer of the SRA. This consent would extend all of the community and civic obligations of the agreements to the third party, and that party would then be required to enter into a land disposition agreement with the SRA. This would be the case, regardless of if the third party partnered with US2, and built under the CDSP, or if US2 split the site off from the CDSP, and the third party built under the underlying zoning.

*How can we even give somebody a permit to work on land they do not own?*

The applicant is requesting special permits. The SRA has acknowledged US2’s filing of the application, pursuant to the terms of the MLDA. Although the SRA does not own many of the parcels, they essentially have a form of ‘site control’ in the form of their authorization to acquire sites through the approved revitalization plan (an urban renewal plan under state law).

To build on a site, an applicant needs a building permit. A building permit is only issued with the consent of an owner. But, the CDSP is a different type of permit. It is a permission to start using the overlay district to design and develop on lots owned by the applicant. It also permits the applicant to continue developing, upon either acquiring or partnering with participants who own additional development sites.

Essentially, this permits the applicant to use the CDSP to say:

“I’m going to build housing here on D2, and I will build open space on D1 and commercial space on D6 when I own those sites”,

and gives the City a chance to say:

“ok applicant – when you have control of those sites, we will permit you to do that, but we expect that you will continue to develop according to this plan, and not break from the overall strategy that you have presented.”

Through this system, the community can ensure that the total development produces the extensive community benefit package, amenities and the minimum commercial development that is identified in SomerVision and the neighborhood plan. A piecemeal development of these parcels could only generate a fraction of the benefits to the community.



Therefore, while site ownership will eventually be required, this system does not require land control to approve the initial special permit.

Can/should we wait for US2 to purchase all of the property? Why or why not?

It is most efficient to allow current owners and tenants to continue to operate on their property until such time as US2 is ready for development of a site. After the CDSP is approved, US2 will work with land owners and businesses to address ownership and/or partnerships.

Is this application complete? Has it met all requirements?

As indicated by the staff in the preliminary staff report, the applicant has met the filing requirements and the application is complete and is adequate to permit the Planning Board to make a decision. In circumstances where the staff did not think that the applicant adequately committed to addressing any particular issue, that issue is addressed through an approval condition – as is the case with any special permit application to the Planning Board. Note that there were some questions about specifics in the plan, and they are addressed as follows:

- Consistency with zoning: pp 27-37
- Pedestrian / bike / vehicular circulation: pp 119-127
- Dimensional information about buildings: To the extent they are required at this phase, they are addressed on pp 91, 119 and 123
- Coordinated drawing of public realm: pp 50, as well as on block and lot plans pp 207-221. A more comprehensive rendering has been developed and is attached
- Street section: pp 243
- D6 plaza impacts / view corridors: This change creates a better, level park than was originally proposed. It is addressed on pp 100.
- Coordinated streetscape: This is being designed by the City's infrastructure team, and coordinates with the plan. See the new attached rendering.

But, the applicant provided supplemental transportation material after the initial application was filed. Don't they need a new neighborhood meeting?

The required Neighborhood Meeting during a CDSP process occurs prior to the official application submittal. The Applicant met the requirements for the meeting and left the informational boards available following the meeting in the Public Safety Building for review by neighbors who weren't able to attend. At the request of the neighbors, the Applicant also held an additional meeting to present the Neighborhood Park and other features of the CDSP.

At the neighborhood meeting on 9/5 there were eight stations set up about different project topics (e.g. employment center urban design; open space; etc.). One station was about transportation and another about infrastructure. The stations were staffed with transit experts from US2 and the transportation engineer from the City. Visitors to the meeting were able to engage the experts and ask questions or express concerns about all transportation issues. All of the details about this meeting are provided in Appendix 2 of the CDSP.

After filing the application, staff requested additional information to meet the staff's expectations for the TIS. This is a typical step in the submittal and review of applications. It does not require a re-start of the process.

**d. Affordable Housing**

All residential development in Union Square is required to include affordable housing as specified in SZO Chapter 13 Inclusionary Housing. (This chapter can be found at [https://library.municode.com/ma/somerville/codes/zoning\\_ordinances?nodeId=ZOORSOMA\\_ART13INHO](https://library.municode.com/ma/somerville/codes/zoning_ordinances?nodeId=ZOORSOMA_ART13INHO)). In general, the ordinance requires that in residential developments of 6 or more units, up to 20% of the units be made

permanently affordable depending on the number of units within the proposal. There are 3 different formulas based on percentages of the average median income in the area to determine who may be eligible and very specific determinations about the distribution of the types of units (number of bedrooms). For rental housing, these income levels are set at 50%, 80%, and 110% of the Boston-Cambridge-Quincy, MA-NH HUD Metro FMR Area published annually by the U.S. Department of Housing and Urban Development.

Of the total required affordable dwelling units (approximately 183-200), the Applicant is required, via zoning, to provide a minimum of 15% as 3-bedroom dwellings. These larger homes are intended for low to moderate income families. The units remain affordable in perpetuity. While the rents may increase slightly over the coming years, the percentage restrictions remain unchanged so rents will only rise at the same rate as income levels.

How is affordable housing calculated? Is it a percentage of units? Of bedrooms? At what income levels?

US2 is subject to the provisions of Article 13, as are all other developments in Somerville. As noted above, the applicant will be required to provide a minimum of 20% of affordable housing units. Article 13 establishes how many units must be at each tier of area median income, and the method to fill these units. Per Article 13, the units will be distributed through each building, and have a ratio of sizes similar to those of all units in the building. The only exception is that the USQ zoning requires a minimum percentage of affordable units as 3-bed units (15% of total affordable units). Therefore, the affordable units are likely to be equal to or more than 20% of the total square footage of units in each building.

Is US2 not proposing to move affordable units between the D-blocks, as they had previously suggested?

As they have not applied for any off-site compliance (which would permit them, under the USQ overlay district zoning to move units from one D-block project to another), they will provide 20% affordable units in each individual building.

Is US2 not proposing to use the 3-bed bonus?

They are not proposing to use the bonus, which would have allowed more tower height in exchange for more three-bedroom units.

Will there be consideration for housing for disabled / veterans?

Units will be designed to meet state and federal codes. New affordable units, and market rate units, typically offer the best opportunities to provide affordable housing for our neighbors with disabilities.

What about existing residents on the D-blocks? What about in the neighborhood?

There is only one resident in all of the D-blocks, and he is in now relocating off the D-block site (but staying in the neighborhood).

In the larger area of the Union Square neighborhood, beyond the D Blocks, the buildings and units that are affordable (through Somerville Community Corporation, Somerville Housing Authority, etc.) will remain so.

Union Square, as a neighborhood, continues to become a more desirable place to live, especially with demographic trends causing more people to seek urban walkable environments and the significant forthcoming investment in transit. Somerville has seen a significant increase in 'house flipping' over recent years, which has made the stock of rental housing less affordable, and split many multi-family homes into condo units. Zoning is not well equipped to address these issues, although the City is undertaking many strategies to address them (including review of condo conversion rules, pursuit of a real estate transfer fee, and the 100 Homes Program). The city is committed to continued efforts to address displacement in any way that we can.

But, it would not be accurate to portray this development as a driver of further speculation and gentrification. That is already happening. While a neighborhood redevelops will become more livable and therefore popular, and therefore market rate rents and real estate values run the risk of increasing, this process is underway in Somerville regardless of new development. The benefit of new development is in its effort to meet regional housing needs, provide affordable housing (at a rate far greater than we can do with city sources), and generate net taxes that can be prioritized for other city goals (thereby keeping other taxes from rising as quickly). Therefore, while we will all continue to work towards the goal of ‘development without displacement’, we will do it without chasing the alternative strategy that was noted by one speaker of ‘displacement without development’.

#### **d. Infrastructure**

How does the project address transportation / infrastructure? How does the project pay for needed infrastructure?

The Applicant has been working closely with the Transportation & Infrastructure. Much of the street and utility work is the responsibility of the City. However, the Applicant team, specifically the engineering consultants, has been working with the City as the streets are redesigned for traffic flow and bike lanes and the stormwater management and sewer improvements are sized to accommodate the anticipated increase in workers and residents. The applicant has agreed to make an investment in cash or in-kind improvements to public infrastructure as a part of the agreements with the city. The applicant is also providing critical MBTA improvements on the D2 site as well as thoroughfares on the D2, D3 and D1 site. Much of the infrastructure typically addressed by the City will use the tax increment from the new development, using the state’s DIF program to bond for this infrastructure.

Have we successfully addressed transportation management? How do we ensure that we don't have spill-over parking onto neighborhood streets?

The Mobility Management Plan meets the requirements of the Director of Transportation & Infrastructure with the addition of the recommended conditions added to part of the preliminary staff report.

The parking issue needs to be resolved by the City, based on city policies. The discussion so far includes consideration of prohibiting residents of the new residential buildings from receiving on-street parking permits. This would require these residents to store their vehicles in the parking garages associated with the development. Even more so, it would incentivize residents without cars to locate at the site. A condition has been included so the City’s Traffic & Parking Department can address impacts as each DSPR application is submitted.

Where are the real commitments to mobility management? Will they need to show evidence of implementation of the mobility management plan before they are able to apply to add more parking spaces?

There are conditions regarding Mobility Management in Appendix B of the preliminary Staff Report. Any conditions that are part of the approval are required to be met prior to the timeline specified with those conditions – often prior to the subsequent DSPR submittals. No additional parking spaces will be permitted until the applicant can establish that they are fully using the mobility management strategies. See zoning 6.8.13.A.2 (formerly 6.7.13.A.2)

Didn't the neighborhood plan anticipate more underground parking? Where is the underground parking? Why is so much parking above ground?

The neighborhood plan included a range of potential parking solutions depending on the site, including surface parking structured parking and underground parking. The plan requires structure parking to be lined with active uses on pedestrian streets. The plan always anticipated that parking on D1 and D2 would be substantially above ground, as the sites are large enough to allow garages to be lined and masked behind other buildings. The water table in the square is high, as has been seen by the flooding in previous years. This does not make it easy to do extensive underground parking. And, while parking fees in downtown Boston may permit the construction of expensive garages, the parking fees possible to charge here may not be enough. The CDSP application is generally consistent with the neighborhood

plan with respect to parking design/locations. At DSPR, the applicant will further assess parking feasibility on individual sites.

**e. Environment & Resiliency**

The application provides an overview of resiliency issues. These topics include flood risk, urban heat island effect, sustainable site strategies, and energy efficient buildings that will be detailed with the design for each building and civic space. Each subsequent DSPR application submitted under this CDSP 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.

How does the plan address the environment?

The city is committed to sustainability and resiliency planning, and the application has devoted a portion of the application to these topics. The applicant has indicated site-specific vulnerabilities from Somerville's Vulnerability assessment.

Does the plan address future flooding concerns?

It does, and notes topographical conditions will influence the appropriate mitigation factors during the DSPR process. The City is also working to separate sewers and create stormwater storage as part of their adjacent public streetscape project. The funding of this project requires the tax revenue from the new buildings here, based on the DIF program.

Can the site do district energy?

On page 115 of the CDSP application, the applicant identifies opportunities for alternative energy strategies that may be efficient or cost effective. The DSPR process will further review these options.

Does the project address heat island issues?

It does. Areas identified as high heat exposure risk by the Climate Change Vulnerability assessments will help inform the planning of green spaces, a key strategy to combat higher temperatures.

Are there LEED requirements?

Yes. Per zoning, buildings greater than 50,000 sf must be LEED gold certifiable. Buildings under 50,000 must be LEED silver.

Will the site help with the carbon neutrality goal?

The City has a goal of carbon neutrality by 2050. Each subsequent DSPR application submitted under this CDSP 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.

**f. Existing Uses, Development Program, & Construction**

As previously mentioned, the final building program will be refined as each parcel is designed and reviewed but the CDSP anticipates which parcels are buildings sites and provides a schematic program for the residential and commercial uses on those parcels that meets the required 60/40 split.

How do we protect the small businesses on the D-blocks?

There are eight existing businesses with uses which remain conforming under USOD. If a site is taken by the SRA through the renewal plan, the state law requires that the businesses be provided with adequate relocation. US2 will work with the eight businesses to offer them opportunities to relocate into the new development.

What about the public safety building?

Locations for Public Safety uses are being considered by the City. Some of the program elements within the existing facility may remain in Union Square while others may be relocated. For example, the police use does not need to be centralized, and a more affordable location further from transit may be more effective for most police functions. The fire department must place their stations in locations that optimize response times. The location of the fire service currently at Union Square should be relocated at or east of the current site. The Deputy Fire Chief expressed a suggestion that the best strategy to maintain fire service may involve having a small station be retained at D1 – and we will continue to work on that, as conditioned in the CDSP staff report.

What about Ricky's?

As noted above, the applicant will work with them to ensure that Ricky's continues to have a place in the Square. The staff and the Mayor remain committed to ensure that Ricky's continue to thrive in Union Square. Since the D1 block is not in the first phase of development, a detailed solution has not yet been finalized. But the applicant has been actively talking with Ricky about his long term home in Union Square.

Where are the arts/creative spaces?

These are distributed through the development and depicted on Figure 71 on Page 192. The applicant has requested to consolidate them to some extent, rather than provide such a use on each individual parcel. The locations are shown on p192, Table 19, and are phased for compliance based on Table 20, Figure 72, page 194.

How do we protect small businesses in Union Square?

All of us (City, US2, neighbors) need to continue to work to ensure a strong local business mix in the square. Many of these businesses are tenants of blocks that are not part of the US2 sites, and they are dependent upon leases with private owners. We will all continue to work with our local partners to keep these businesses strong. This will likely also be a topic for continued discussion with the newly created neighborhood council.

The applicant has created a scale of employment space opportunities available throughout the plan to allow businesses to start, to grow, and even potentially to relocate and grow if necessary. The applicant has also worked to open Workbar, fund retail tech assistance programs, and has supported local first and USMS. All of these programs help grow these businesses.

The new development will also bring additional day and evening foot traffic to the square, thereby adding substantially to the existing customer base for these small businesses

**g. Labor force**Can the Planning Board demand the project use all union labor?

A Planning Board cannot require any developer to limit their construction labor force as a condition of issuing a permit.

### 3. Changes to staff recommended findings and conditions

The staff is proposing the adjustments to the findings and conditions, that are outlined on the pages that follow. These adjustments are based on one of three sources:

- Responses to the questions above and the comments from the first meeting
- Clarification and adjustments to address legal and practical considerations of the application, based upon feedback from US2
- Requests generated from written comments received to date. In particular, staff notes that Union Square Neighbors and US2 had further conversations about the neighborhood park and design since the last meeting. Both US2 and USN proposed some strategies to address concerns as the project moves from CDSP to the DSPR process for each building. The staff has worked with that information to incorporate adjustments into the staff's recommendation

#### a. Findings

Staff recommends adding the following finding and indicating that it has been met. This is a technical detail to clarify the legal implications of the Planning Board's approval, it reduces legal risk and establishes completeness of the application as required by 5.8.6 of the SZO:

- Pursuant to Section 5.8.6 of the Somerville Zoning Ordinance, the Planning Board finds that all applicable provisions of the Somerville Zoning ordinance have been met, and further finds that any non-compliance with procedural requirements respecting the issuance of this CDSP is hereby waived by the Planning Board.

#### b. Conditions

The following adjustments are made to conditions from the original CDSP preliminary staff report. An updated set of conditions is attached, incorporating these changes in blue:

- Conditions 3, 8, 15 and 30 are adjusted to address the ongoing discussions about the neighborhood park location
- Condition 26 adjusted to be in line with MLDA
- Condition 27a is added to address indoor civic space
- Condition 42 is amended to address an error
- Condition 44 is adjusted to maintain its intent while accounting for the expectations of commercial tenants (i.e. to ensure that USQ can compete for tenants in the regional market)
- Condition 73 is clarified
- Condition 78 is amended to remove an unnecessary reference

## Appendix B: UNION SQUARE OVERLAY DISTRICT - CONDITIONS

### CDSP CONDITIONS

#	Condition	Timeframe	Verified (initial)	Notes
1	<p>Approval is for the CDSP, 3 simultaneous Special Permits, and 2 Waivers. This approval is based upon the following application materials and the plans submitted by the Applicant:</p> <p><b>Date                      Submission</b></p> <p>9/19/2017 Initial application submitted to the City Clerk's Office</p> <p>11/8/2017 Modified plans submitted to OSPCD (complete revised application)</p> <p>Any changes to the approved Coordinated Development Special Permit that are not <i>de minimis</i> are considered a Major Amendment to this CDSP. A Major Amendment is subject to the procedural standards required of a CDSP.</p>	Building Permit / Certificate of Occupancy	ISD/ Planning	
2	Approval is subject to the Applicant's and/or successor's right, title and interest in the property.	Perpetual	Planning	Deed submitted & application form signed
<b>Build Out</b>				
3	Lots must be platted in a form substantially consistent with the Block and Lot Key Plan dated 11-07-2017 of the Application materials, <i>provided that changes to the platting of lots from the key plan will be considered and may be approved by the Planning Director when the Planning Director determines that they demonstrably improve the implementation of the Neighborhood Plan objectives and/or create opportunities for better architectural design.</i>	DSPR	Planning/ Engineering	
4	New thoroughfares must be developed as detailed on p122-123 and illustrated in Figure 62 of the application materials both as to the general location and specific dimensions of the new alleys and reconfiguration of Everett Street. The Board also approves, in concept, the proposed 50' scale new thoroughfares plan provided to the City digitally on November 7, 2017. The Applicant shall work with City staff to finalize the details of each proposed new thoroughfare to ensure proper design and intersection with the existing thoroughfare network.	DSPR	T&I/Planning/ Engineering	
5	Lots identified as a Civic Space site must be developed as the Civic Space type or one of the the alternative types identified on Table 8: Proposed Civic Space Build Out and shown on Figure 14 Proposed Civic Space Plan of the Application materials.	DSPR	Planning	

6	<p>Lots identified as building sites on pages 91-109 of the Application materials must be developed as the following building types:</p> <p>D1.1 Commercial Building  D1.2 Commercial Building/Lab Building/Lined Parking Garage  D2.1 Commercial Building/Lab Building  D2.2 General Building  D2.3 Mid-Rise Podium Tower Building  D2.4 Commercial Building  D3.1 Commercial Building/Lab Building/Lined Parking Garage  D3.2 Mid-Rise Podium Tower  D3.3 Commercial Building/Lab Building/Lined Parking Garage  D4.1 Commercial Building  D4.2 General Building  D5.1 Commercial Building  D5.2 Commercial Building  D5.3 General Building  D6.1 Commercial Building  D6.2 Commercial Building  D7.1 General Building</p>	DSPR	Planning	
7	<p>Vehicular parking must be provided as illustrated in Figure 66: Parking Location Map and as specified on the revised Table 11: Parking Provision located in the Staff Report which was originally included on page 132 of the Application materials. Specific reserved spaces, as permitted by the Union Square Overlay District, may be determined on a case by case basis as part of the DSPR required for the development of each lot.</p>	DSPR	Planning	
<b>Plan Revisions</b>				
8	<p>The configuration or number of lots may be changed and modified at any time as a Major Amendment to this CDSP. <a href="#">Revisions to Lot lines within Block boundaries resulting from design process and review shall not require a Major Amendment, subject to approval of the same by the Planning Director.</a></p>	CDSP	Planning	
9	<p>The elimination of any proposed new thoroughfares as illustrated in Figure 62 (page123) of the application materials is permitted only as a Major Amendment to this CDSP.</p>	CDSP	Planning	
10	<p>The specific civic space types (including multiple options for specific sites) set forth in the the application materials and herein approved may be selected from types identified in the application materials. To change to a civic space type not stated in the Application materials will require s a Major Amendment to this CDSP.</p>	CDSP	Planning	
11	<p>The specific building types set forth in the the application materials and herein approved may be changed and modified at any time as a Major Amendment to this CDSP.</p>	CDSP	Planning	
12	<p>The proportion of residential and nonresidential gross floor area as approved is fixed in perpetuity and may not be changed in any material way, except through a Major Amendment to this CDSP.</p>	CDSP	Planning	
<b>Construction Permitting</b>				
13	<p>Parcelization and subdivision of land identified in the application materials requires the approval of one or more Design and Site Plan Review (DSPR) applications to establish the new lot boundaries. DSPR applications for parcelization or subdivision may be processed simultaneously with DSPR applications required for development on the lots resulting parcelization or subdivision.</p>	DSPR	Planning	



14	The development of any lot as a building or civic space and the construction or reconstruction of any thoroughfare requires DSPR.	DSPR	Planning	
15	Each building, civic space, and thoroughfare (including streetscape details) and associated physical improvements requires design review per the SZO, prior to the submittal of a DSPR application. <a href="#">Design review will take into account not only the parcel under review, but also the larger context in terms of relationships, sight-lines, compatibility of materials, pedestrian access, and consistency with the intent of the Neighborhood Plan.</a>	DSPR	Planning	
16	DSPR applications for thoroughfares, civic spaces, and buildings may be processed simultaneously with DSPR applications for adjacent thoroughfares, civic spaces, and buildings on the same D-Block.	DSPR	Planning	
17	The Building Official shall not issue a building permit for development on D1, D2, D3, D4, and D6 lot or civic space site until a DSPR is approved by the Planning Board for the applicable adjacent thoroughfare.	Building Permit	ISD/ Planning	
18	The Applicant may submit a DSPR application for any portion of Phase 1 at any time within two (2) years of the date of filing of this Decision with the City Clerk. Action by the Applicant during this time frame constitutes substantial use of the permit.	DSPR	Planning	
19	If a time period of two (2) years between the submittal of a required DSPR application and the date of the Decision for the previous DSPR lapses at any point during the execution of the approved development phases, the Planning Board must be updated by the Applicant on the anticipated schedule for future construction, difficulties encountered in executing the proposed development as planned, whether the entirety of the proposed development can be fully constructed in the time period provided, and, if not, how much additional time might be required.	DSPR	Planning	
20	The issuance of a building permit for any development project permitted pursuant to this CDSP shall be conditioned upon a letter of certification by the Director of Planning to the Building Official stating that (i) the applicant is a party to or otherwise subject to that certain Development Covenant between Union Square Station Associates LLC and the City of Somerville dated June 8, 2017, as amended, and (ii) the applicant is proceeding in accordance and in compliance with all provisions of such Development Covenant applicable to the development project for which a permit is being requested.	Building Permit	ISD/ Planning	
21	Except as approved in writing by the Planning Director,, the Building Official shall not issue any building permit for development in the next succeeding phase until all thoroughfares, civic spaces, and buildings are under construction in the preceding phase.	Building Permit	ISD/ Planning	
22	Except as approved in writing by the Planning Director, the Building Official shall not issue any Certificate of Occupancy for development in the next succeeding phase until a Certificate of Occupancy has been issued for all buildings in the preceding phase and all associated civic spaces and thoroughfares in the current phase have been completed.	Certificate of Occupancy	ISD/ Planning	
23	The Building Official shall not issue any Certificate of Occupancy for any building on any lot abutting a civic space, mid-block passage, alley, or pedestrian path approved in this CDSP until the civic space, mid-block passage, alley, or pedestrian path is fully completed and operational, or a bond is posted for the value of work to remain.	Certificate of Occupancy	ISD/ Planning	

24	The Building Official shall not issue any Building Permit for any building intended for a residential use on any D Block, other than the D2.2 General Building, D2.3 Mid-Rise Podium Tower, or any General Building on D7.1 and D7.2 that is developed contemporaneously with any building on the D2 Block to provide off-site compliance with affordable housing requirements in accordance with this CDSP and per the Development Covenant and Master Land Disposition Agreement until the Applicant has commenced construction on the D2.1 Commercial or Lab Building.	DSPR	Planning	
25	The Building Official shall not issue any Building Permit for any building on any D4 or D6 lots until the realignment of Newton Street and Everett Street is completed.	DSPR	Planning/T&I/ Engineering	
26	All civic spaces, thoroughfares, infrastructure improvements, buildings, and all project mitigation measures must be constructed, under construction, installed, or put into operation on or before the expiration period identified in the MLDA December 31, 2042. Extension of the CDSP beyond this deadline requires a Major Amendment to this Special Permit.	Building Permit	ISD/ Planning	
<b>Civic Space</b>				
27	Up to ten percent (10%) or approximately 11,014sf of the required Civic Space may be satisfied by a payment in lieu of civic space as set by the Planning Board.	TBD	Planning	The schedule of, and amount of payments will be determined prior to the first DSPR application
27a	The Applicant will work with the Neighborhood Council to allow in the design process for the inclusion of indoor civic space. The Applicant shall make reasonable efforts to identify the appropriate tenant or tenants for lease of this space for civic uses within the appropriate development block and to consummate a lease with said tenant. The Applicant shall provide updates to the Planning Board on these efforts with the submittal of the DSPR for each block.	The Applicant shall provide updates to the Planning Board on these efforts with the submittal of the DSPR for each block.	Planning	
28	The Applicant is responsible for the cost of design and construction of all civic spaces, in accordance with the DSPR approved for each civic space.	Perpetual	Planning	
29	Unless the City establishes, with the developer, an alternative strategy to maintain a civic space, the Applicant is responsible for the maintenance of that civic space in perpetuity, and shall enter into a maintenance agreement for each such civic space. The City will own and maintain the neighborhood park.	Perpetual	Planning	

30	The neighborhood park shall be located as shown in the application on Table 8 and Figure 14 (on Parcel D1) or on a comparably sized location approved by the Planning Director in accordance with conditions 3 and 8 above. If further study and additional community input indicates to the Planning Director that an alternative location on the D blocks would improve the attractiveness, access, and functionality of the park. <del>If, after further community conversations, the Planning Director determines that the neighborhood park would benefit from being moved,</del> the Planning Director shall, at that time, direct the Applicant to move this civic space to Parcel D7 while maintaining at a minimum the amount of appropriately sited open space described in earlier versions of the plan on the D blocks. If this is to occur, the applicant will update the CDSP documents and provide an update to the Planning Board. (This determination will be considered as a part of the approved plan and, if approved by the Planning Director, shall not require a Major Amendment). Additional community input, as referenced above, shall include, but not be limited to, a design workshop (format approved by the Planning Director) to be attended by urban designers and other professionals with appropriate backgrounds who are familiar with the neighborhood, in addition to representatives of the applicant and the City, and any such workshop will consider the open space plan for the D blocks in the context of the Neighborhood Plan, from an urban design and planning perspective, taking into account the multiple perspectives expressed and documented at earlier community meetings. The workshop shall be open to the public and/or incorporate or be followed by a public presentation of findings and results.	Prior to DSPR application for any portion of Parcel D1 or D7, with determination to be made no later than 12 months after the CDSP approval.	Planning	
31	Unless an alternate schedule is designated and approved per the Development Covenant or the Master Land Disposition Agreement, the Applicant must acquire the Neighborhood Park site (Civic Space site A on Table 8: Proposed Civic Space Build Out and Figure 14 Proposed Civic Space Plan of the Application materials, unless the site is changed per the above condition) at or before 30% of the proposed development is completed. At or before 50% completion of the proposed development, the Applicant must begin the improvement or construction of the Neighborhood Park.	Building Permit	ISD/ Planning	
32	Following completion of the Neighborhood Park, the Applicant shall convey the Neighborhood Park (together with all improvements thereon and an assignment of all construction and equipment warranties, to the extent assignable) in fee to the City at no cost to the City per Section 28 of the Development Covenant.	Construction Completion	Planning/T&I	
<b>Infrastructure</b>				
33	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.	DSPR	Various	
34	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. DSPR application 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.	DSPR	Various	
<b>Conveyance</b>				

35	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.	Certificate of Occupancy	ISD/ Planning	
<b>Transportation</b>				
36	<p>As noted in the review comments of the TIS on page 6 of the Staff Report, the TIS provides a typical analysis of transportation impact according to industry standards but needs further refinement. While the TIS meets needs for a CDSP submittal, prior to the submittal of the first DSPR application any building in Phase 1 of the proposed development, the TIS must be updated as follows:</p> <ul style="list-style-type: none"> <li>a Use the most recent version of the ITE Trip Generation Manual.</li> <li>b Apply one standard deviation to the ITE Trip Generation Manual trip generation rates and apply those additional trips to the pedestrian trips total.</li> <li>c Add the number of vehicle trips removed for internal trips (15% of person trips) to the pedestrian trips total.</li> <li>d Provide a distribution of pedestrian trips through the study area thoroughfares and intersections to reassess the Project's impact on City sidewalks for each scenario (base year and future year built condition analyses), so that updated analysis can be conducted.</li> <li>e Assess Project-related MBTA Green Line trips with the latest capacity data to understand how they effect existing capacity challenges at the North Station, Government Center, and Park Street MBTA station.</li> <li>f Provide Automatic Traffic Recorder (ATR) data, including hourly and daily volumes broken down by vehicle type, and hourly and daily 85<sup>th</sup> percentile speeds for a 72-hour period spanning from a Thursday at midnight through a Saturday at 11:59pm, in summarized form and the raw data.</li> </ul>	Prior to the first DSPR application	T&I/Planning	
37	The Applicant shall improve accessibility and comfort, to the extent practicable, at one existing MBTA bus stop along the frontage of each building site (D1.1, D1.2, D2.1, D2.2, etc.). Building sites where bus stops have already been improved or where no MBTA bus stop exists at the time of DSPR submittal are exempt. Specific improvements must be approved by the Transportation & Infrastructure Director. The Building Official shall not issue a Certificate of Occupancy for the subject building until such improvements have been installed or constructed.	Certificate of Occupancy	T&I/Planning	
38	The Applicant shall provide at least two City-approved bike share stations and associated bicycles, or the functional equivalent for any future bike share service approved by the City. The Building Official shall not issue a Certificate of Occupancy for any building in Phase 2 until the first bike share station or its equivalent has been provided and is fully operational at a location approved by the City. The Building Official shall not issue a Certificate of Occupancy for any building in Phase 3 until the second bike share station or its equivalent has been provided and is fully operational at a location approved by the City.	Certificate of Occupancy	T&I/Planning	
39	If any revision to this CDSP results in a significant change to the proposed built out program specified on Table 9 of the Application materials, subject to the provisions of the Union Square Overlay District, a revised TIS will be submitted as part of the Major Amendment to this CDSP.	Amended CDSP	T&I/Planning	

40	At the beginning of Phase 3 of the proposed development, the Applicant must monitor and reassess traffic operations for at least ten intersections within the study area. Intersections must be approved by the Transportation & Infrastructure Division. The Building Official shall not issue a Certificate of Occupancy for any building in Phase 3 until this analysis has been submitted to the City.	Certificate of Occupancy	T&I/Planning	
41	The Traffic & Parking Department retains the right to limit or restrict eligibility for Residential Parking Permits for any residential dwelling unit included in this development proposal, through a condition of the relevant DSPR.	DSPR	T&P/T&I/Planning	
<b>Mobility Management</b>				
42	Mobility management conditions below (conditions <del>43-53</del> 42-52) are establishd and hereby incorporated into the Mobility Management plan, as approved by the Director of Transportaiton & Infrastructure. The Director of Transportation & Infrastructure may modify or waive the provisions of these conditions if the Applicant provides satisfactory proof that the intended purpose of each condition is being achived through other methods (i.e. vanpools that don't need parking spaces, etc.). The modification of these conditions by the Director of Transportaiton & Infrastructure shall not be permitted simply as a cost savings strategy.	Certificate of Occupancy	T&I/Planning	
43	In any lease agreement for non-residential uses, the Property Owner shall require the leasee to provide their employees with Qualified Transportation Fringe benefits per the current U.S. Internal Revenue Code.	Certificate of Occupancy	T&I/Planning	
44	For the purpose of reducing daily peak-hour vehicle trips, the Property Owner shall <del>require any leasee to establish, to the extent practicable, strategies to seek applicants for open jobs first from amongst qualified Somerville residents., to the extent practicable, work with leasees and the community to develop strategies to advertise employment opportunities and seek qualified candidates that live within walking or biking distance from to Union Square.</del>	Certificate of Occupancy	T&I/Planning	
45	In any lease agreement for non-residential uses, the Property Owner shall require the leasee to become a participating MassRIDES employer partner worksite that is registered for the MassRIDES Emergency Ride Home (ERH) program or provide a similar guaranteed ride home service operated by the leasee.	Certificate of Occupancy	T&I/Planning	
46	Mobility management plans submitted for subsequent development review must provide an implementation schedule for programs and services included or conditioned as part of the approved plan.	DSPR/ Perpetual	T&I/Planning	
47	Each commercial service vehicular parking (public garage) use must make at least 2 parking spaces available for car share vehicles at no cost to the care share service provider. Spaces may be brought online at the discretion of the car share service provider. Notification of available spaces to car share service providers must be documented in annual reporting.	DSPR/ Perpetual	T&I/Planning	
48	At least 5 parking spaces or 5% of the total parking spaces provided in each commercial service vehicular parking facility, whichever is less, must be designated and reserved for carpools or vanpools before 9:00 AM on weekdays. More spaces may be provided but are not required. These parking spaces must be located closest to the main pedestrian entrance or elevator (exclusive of spaces designated for the handicapped). Signs must be posted indicating these spaces are reserved for carpool or vanpool use before 9:00 AM on weekdays.	DSPR/ Perpetual	T&I/Planning	
49	Commercial service vehicular parking facilities (public garages) must be operated by the property owner or a management agency independent from other non-residential uses located on the same site or within the same building.	Perpetual	T&I/Planning	

50	Each commercial service vehicular parking facility (public garage) must provide a sign at the vehicular entrance to the parking structure or lot that identifies, at minimum, the number of spaces available in real time.	Perpetual	T&I/Planning	e.g. gate counter or sensors
51	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. Conceptual plans for the operation of this service must be approved by the Transportation & Infrastructure prior to the issuance of the Certificate of Occupancy for the Hotel. Revisions to operations at any time require approval by the Transportation & Infrastructure.	Certificate of Occupancy	T&I	
52	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.	Perpetual	T&I/Planning	
53	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.	Perpetual	T&I/Planning	
<b>Linkage</b>				
54	Housing Linkage payments will be required to be paid to the Somerville Housing Trust Fund per the SZO.	Certificate of Occupancy	Planning/Housing	
55	The GLX Contribution (\$2.40/gross square foot excluding structured parking and mechanical penthouses - fee adjusted annually by CPI per Section 2(a) of the Development Covenant) will be due and payable per the terms of Section 2(a) of the Development Covenant.	Building Permit/ Certificate of Occupancy	Planning/ Economic Development	
56	New sanitary connection flows over 2,000 GPD require a removal of infiltration and/or inflow by the Applicant. This will be achieved by submitting a plan for I/I work or a mitigation payment, established by the City Engineers Office, to the City based on the cost per gallon of I/I to be removed from the sewer system and a removal ratio of 4:1. If a different ratio of removal or mitigation payment amount is adopted by the Board of Aldermen prior to the Applicant receiving a Certificate of Occupancy, payment will be adjusted to the BOA rate. The Applicant shall work with Engineering and meet this condition before a certificate of occupancy is issued.	Building Permit for each building	Engineering	
57	The Infrastructure Contribution (\$2.00/gross square foot - fee adjusted annually by CPI per Section 2(b) of the Development Covenant) will be due and payable per the terms of Section 2(b) of the Development Covenant.	Building Permit/ Certificate of Occupancy	Planning/ Economic Development	
58	One-third (33.3%) of the Community Benefits Contribution (\$1.60/gross square foot excluding structured parking and mechanical penthouses - fee adjusted annually by CPI per Section 3 of the Development Covenant) for the first building to be constructed on the D2 Block has been deposited in escrow with the City and will be released in accordance with Section 3 of the Development Covenant. The remaining 66.4% of the Community Benefits Contribution for the first building to be constructed on the D2 Block as well as the Community Benefits Contribution for all other buildings will be due and payable per the terms of Section 3 of the Development Covenant.	Building Permit/ Certificate of Occupancy	Planning/ Economic Development	

59	The Future Phase Contribution (\$2.00/gross square foot excluding structured parking and mechanical penthouses - fee adjusted annually by CPI per Section 4 of the Development Covenant) will be due and payable per the terms of Section 4 of the Development Covenant subject to an offset amount of up to \$750,000 as set forth in Section 4 of the Development Covenant.	Building Permit/ Certificate of Occupancy	Planning/ Economic Development	
60	Per the Development Covenant, and/or relevant portions of the SZO, a municipal job creation and retention linkage fee will be due.	Building Permit/ Certificate of Occupancy	Planning/ Economic Development	
<b>Affordable Housing</b>				
61	A draft Affordable Housing Implementation Plan (AHIP) must be provided by the Applicant showing the anticipated program of affordable units - types and sizes - in each DSPR application.	DSPR	Planning/Housing	
62	The AHIP must be approved by the OSPCD Housing Division and executed prior to issuance of Building Permit.	Building Permit	Housing/ISD	
63	Written certification of the creation of affordable housing units, any fractional payment required, or alternative methods of compliance, must be obtained from the Housing Division before the issuance of a Certificate of Occupancy (CO). No CO shall be issued until the 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.	Certificate of Occupancy	Housing/ISD	
64	No CO shall be issued until the Housing Division has confirmed that: (for Condominium Projects) the Condominium Documents have been approved and the Applicant has agreed to a form of Deed Rider for the Affordable Unit(s), or (for Rental Projects) the Applicant has agreed to and executed a Memorandum of Understanding for Monitoring of the Affordable Unit(s).	Certificate of Occupancy	Housing/ISD	
<b>Design &amp; Site Plan Requirements</b>				
<b>General</b>				
65	Approval of a building or civic space pursuant to the DSPR Approval process acts as certification that such building or civic space, if constructed in conformance with such approval, complies with the findings, limitations, and conditions of this Coordinated Development Special Permit.	DSPR	Planning	
66	The Applicant must contact the Engineering Department to obtain street addresses for all of the D Blocks (CDSP parcels) prior to the first DSPR application submittal. The addresses will be refined as part of the DSPR process when the development program is more refined.	Prior to DSPR application	Engineering/ Planning	
67	The Applicant will not begin construction of any residential buildings on any D Block, except the D2 Block, until the Applicant has commenced construction on the office/lab building of the D2 Block. Exception: if the D7 Block (or a portion thereof) is developed contemporaneously with the D2 Block to provide a portion of the affordable housing component of the Project in accordance with the CDSP and per the Development Covenant and the Master Land Disposition Agreement.	DSPR	Planning	
68	Each subsequent DSPR application submitted under this CDSP 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.	DSPR	OSE/Planning	
69	Each subsequent DSPR application submitted under this CDSP 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.	DSPR	OSE/Planning	

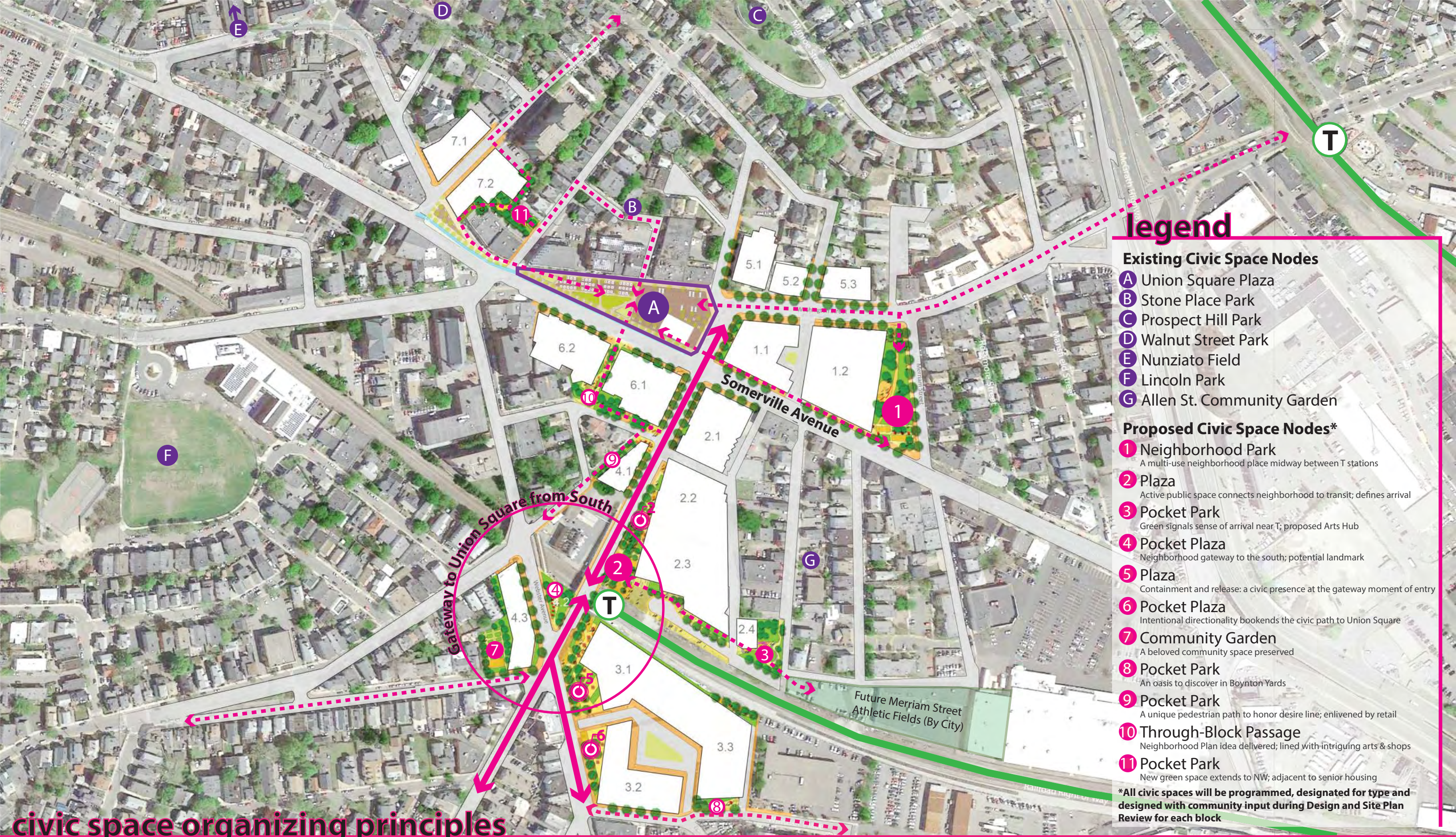
70	The Applicant shall complete the Site Plan Review Checklist and supply the information to the Engineering Office. The plans must comply with the City's Stormwater Management Policy.	DSPR	Engineering	
71	The Applicant shall develop a demolition plan in consultation with the City of Somerville Inspectional Services Division. Full compliance with proper demolition procedures shall be required, including timely advance notification to abutters of demolition date and timing, good rodent control measures (i.e. rodent baiting), minimization of dust, noise, odor, and debris outfall, and sensitivity to existing landscaping on adjacent sites.	Demolition Permitting	ISD	
72	Applicant shall submit plan drawings clearly showing all existing municipal fire alarm and related communications infrastructure to be impacted by proposed construction, including but not limited to underground conduit, above-ground alarm boxes and control cabinets. Applicant shall submit plan drawings clearly showing temporary and permanent relocation of all impacted fire alarm and communications infrastructure necessitated by private construction. Applicant shall meet with Lights and Line Division to discuss plans and address conflicts to avoid service interruption during construction and occupancy phases.	DSPR	DPW/Fire/Engineering	
73	No large scale retail stores in excess of 20,000 square feet, no warehousing, no heavy industrial or manufacturing uses, other than small scale fabrication are permitted. on D2.	DSPR	Planning	
74	If pursuant to the Master Land Disposition Agreement, the Applicant and the SRA agree to allow a third party developer unrelated to the Applicant to redevelop a D Block (or any portion thereof), the Applicant and the SRA shall enter into an amendment to the Master Land Disposition Agreement providing for the development of a D Block (or any portion thereof) by such third party developer prior to DSPR for such D Block (or any portion thereof).	Prior to DSPR application	Planning/Economic Development	
75	Applicant shall provide material samples for siding, trim, windows, and doors to Planning Staff and the Design Review Committee for review, comment, and approval as part of the Design Review required prior to each DSPR application.	DSPR	Planning	
76	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.	Building Permit	Planning	
77	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.	Perpetual	ISD	
<b>Specific Blocks</b>				
<b>D1</b>				
78	The Planning Board specifically permits the Hotel use on lot D1.1 in accordance with Section XX and the conditions set forth above. Such hotel use is required unless a Minor Amendment to the CDSP is approved to an alternate permitted non-residential use.	DSPR	Planning/ Economic Development	
79	Buildings on the D1 Block must be designed for flood tolerance to every extent practicable - such as emergency back-up systems for improving resiliency, utility improvement plans include hardening, and/or other hazard protection. These elements should be explained in the DSPR application or reasons for not considering flood tolerance must be provided.	DSPR	Planning/OSE/Engineering	
80	The D1 Block water, sewer and drain connection locations must be coordinated with the Somerville Ave Utility and Streetscape Improvements project drawings and the City's Director of Engineering.	DSPR	Planning/Engineering	



<b>D2</b>				
81	The street-facing portions of D2.1 and the alley way to the east of D2.2 and D2.3 should make accommodations for flooding during extreme storm events. These accommodations must be coordinated with the Engineering Department.	DSPR	Planning/ Engineering	
82	The D2 Block water and sewer connections must be relocated to Prospect Street, and the drain connection location must be coordinated with the Somerville Ave Utility and Streetscape Improvements project drawings.	DSPR	Planning/ Engineering	
<b>D3</b>				
83	Buildings on the D3 Block must be designed for flood tolerance to every extent practicable - such as emergency back-up systems for improving resiliency, utility improvement plans include hardening, and/or other hazard protection. These elements should be explained in the DSPR application or reasons for not considering flood tolerance must be provided.	DSPR	Planning/OSE/ Engineering	
84	The capacity of the proposed Western Avenue sewer and drain systems must be evaluated, and the connections for D3 may need to be relocated to the Boynton Yards system. The Applicant should coordinate with Engineering prior to the DSPR application submittal.	Prior to DSPR application	Planning/ Engineering	
<b>D4</b>				
85	The sewer and drain connections for D4 need to be evaluated and possibly relocated. The Applicant must coordinate with Engineering prior to the DSPR application submittal.	Prior to DSPR application	Planning/ Engineering	
86	Buildings on the D4 Block must be designed for flood tolerance to every extent practicable - such as emergency back-up systems for improving resiliency, utility improvement plans include hardening, and/or other hazard protection. These elements should be explained in the DSPR application or reasons for not considering flood tolerance must be provided.	DSPR	Planning/ Engineering	
<b>D5</b>				
	none			
<b>D6</b>				
87	D6 sewer connection must be provided to the 20" combined sewer on the south side of Somerville Avenue. Utility plans must be coordinated with Engineering.	DSPR	Planning/ Engineering	
88	D6 water, sewer, and drain connection locations must be coordinated with the Somerville Ave Utility and Streetscape Improvements project drawings and approved by the Engineering Department.	DSPR	Planning/ Engineering	
<b>D7</b>				
89	D7 sewer and drain locations must be coordinated with the city's Spring Hill Sewer Separation project and approved by the Engineering Department.	DSPR	Planning/ Engineering	
<b>Engineering &amp; Public Safety</b>				
90	The Applicant must contact the Engineering Department to coordinate the timeline for cutting or opening any street and 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.	Building Permit	Engineering	
91	The Applicant shall meet the Fire Prevention Bureau's requirements.	Certificate of Occupancy	Fire Prevention	
92	The Applicant shall submit a proposed drainage report for each building and civic space site that demonstrates compliance with the City's storm water policy.	Building Permit	Engineering	
	The Applicant will work with the City as a determination is made if fire response would be optimized by maintaining a fire department presence on D1 (or any other D Block), including;	Prior to DSPR		

93	a	Design the appropriate block to incorporate the fire department, if the studies determine that it is the appropriate location.	Final sign off application for any portion of Parcel D1	Planning	
	b	Incorporate that station in the design submittal for the appropriate DPSR application.			
<b>Final Sign-Off</b>					
94		The Applicant shall contact Planning Staff at least five working days in advance of a request for a final inspection by Inspectional Services to ensure the proposal was constructed in accordance with the plans and information submitted and the conditions attached to this approval.	Final sign off	Planning	





## Legend

### Existing Civic Space Nodes

- A Union Square Plaza
- B Stone Place Park
- C Prospect Hill Park
- D Walnut Street Park
- E Nunziato Field
- F Lincoln Park
- G Allen St. Community Garden

### Proposed Civic Space Nodes\*

- 1 Neighborhood Park  
A multi-use neighborhood place midway between T stations
- 2 Plaza  
Active public space connects neighborhood to transit; defines arrival
- 3 Pocket Park  
Green signals sense of arrival near T; proposed Arts Hub
- 4 Pocket Plaza  
Neighborhood gateway to the south; potential landmark
- 5 Plaza  
Containment and release: a civic presence at the gateway moment of entry
- 6 Pocket Plaza  
Intentional directionality bookends the civic path to Union Square
- 7 Community Garden  
A beloved community space preserved
- 8 Pocket Park  
An oasis to discover in Boynton Yards
- 9 Pocket Park  
A unique pedestrian path to honor desire line; enlivened by retail
- 10 Through-Block Passage  
Neighborhood Plan idea delivered; lined with intriguing arts & shops
- 11 Pocket Park  
New green space extends to NW; adjacent to senior housing

\*All civic spaces will be programmed, designated for type and designed with community input during Design and Site Plan Review for each block

## civic space organizing principles

- 1 PROPOSED  
DISCOVERY
- 2 EXISTING  
HIGH PED. ZONE
- 3 PRIMARY

### Node

Eleven new civic spaces organized to create new destinations, define quality pedestrian zones along existing streets and add new passages for discovery will define a new Union Square public realm.

### 2



### PRIMARY PATH

A series of civic spaces North and South of the tracks creating a primary Open Space axis leading to and from the new Union Square T station.

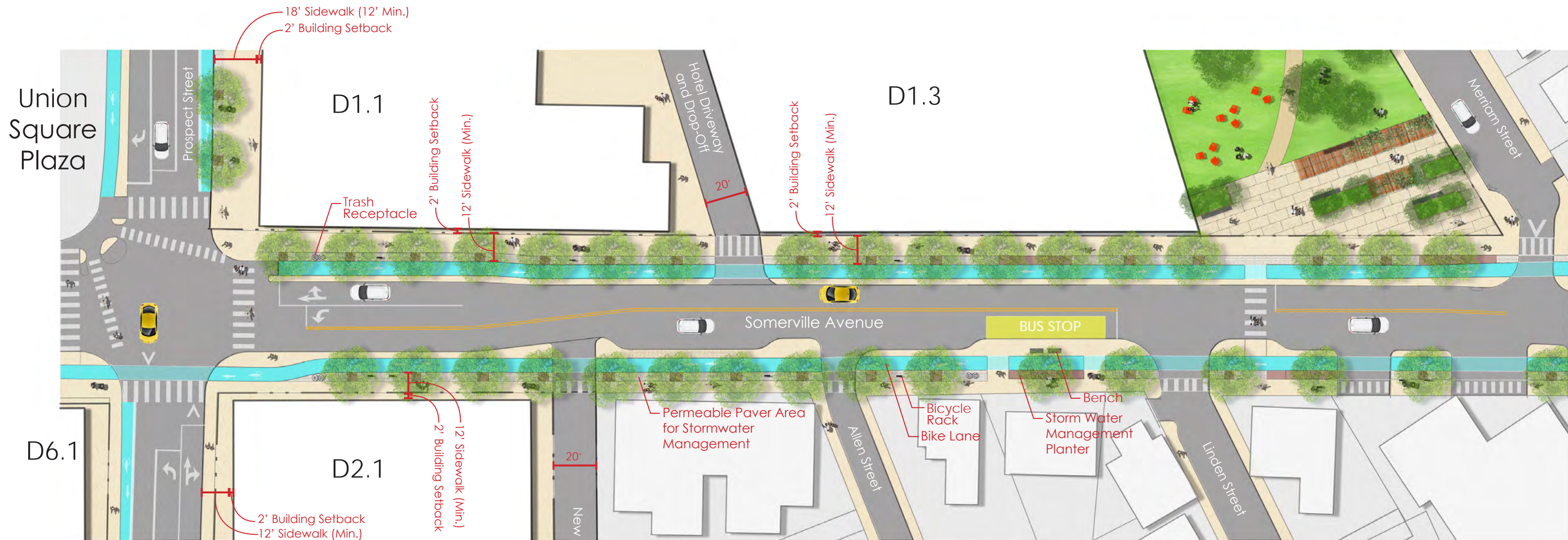
### 3



### SECONDARY PATH

Reinforcing Union Square Plaza as the heart of the neighborhood, civic and public realm spaces reach out and connect the broader neighborhood.  
conceptual, subject to change





\*Note : Building facade articulation, entries and final floorplates will be designed as part of Design and Site Plan Review Stage



**CITY OF SOMERVILLE, MASSACHUSETTS**  
***MAYOR'S OFFICE OF STRATEGIC PLANNING & COMMUNITY DEVELOPMENT***  
**JOSEPH A. CURTATONE**  
**MAYOR**

MICHAEL F. GLAVIN  
EXECUTIVE DIRECTOR

**Coordinated Development Special Permit  
Development Review Application  
Submission Requirements**

Development requiring a Coordinated Development Special Permit must submit a written document accompanied by data and graphics that includes the following:

1. An introduction identifying the Applicant, the public process to date, and the existing conditions of the development site;
2. A development proposal including a description of the project, a review of city policy achievements and required permitting, the proposed build out of civic space, building sites, transportation improvements, and infrastructure improvements for the development site, an implementation plan, a review of benefits attributable to the development, and block and lot plans;
3. A zoning compliance review; and
4. Any necessary appendices.

In support of the proposal, Applicants must also provide a Transportation Impact Study, a Civic Space Study, and a Mobility Management Plan under separate cover.

**A. Document & Graphic Standards**

1. Applications must be in narrative form accompanied by maps, diagrams, illustrations, tables and other necessary graphic information.
2. All required materials must be submitted both physically and electronically:
  - a. Physical copies must be in the form of an 8.5"x11" portrait oriented booklet with a spiral coil binding. Plan sets included must be provided on 11"x17" landscape oriented pages that fold into the booklet. Large documents may be split into a multi volume set of booklets.
  - b. Electronic copies must be submitted in PDF format on a labeled flash drive. Plan sets must be at least 24"x36" in size when submitted electronically.
3. All plan drawings must include a title block with the project title, plan issue date, sheet number, sheet title, preparer name and contact information, preparers seal or certification stamp, scale, revision number and date, assessor's map-block-lot number(s), and an empty 2"x 2" stamp block (for City of Somerville use). A north arrow and graphic scale must be provided on each map or plan.



4. All thoroughfares and existing civic spaces must be clearly labeled by name on each map or plan.

## **B. Required Outline**

The submitted document must have the following outline:

1. Project Introduction
  - a. Applicant Information
    - i. Contact Information
    - ii. Title Report
    - iii. Deed
    - iv. Legal Standing
    - v. Beneficial Interest Disclosure
    - vi. Campaign Contribution Disclosure Form
  - b. Public Process Overview
  - c. Development Site Existing Conditions
    - i. Locus Map
    - ii. Development Site Plan
    - iii. Transportation
2. Development Proposal
  - a. Project Description
    - i. Development Concept Narrative
  - b. Nature of the Application
    - i. City Policy Consistency Review
    - ii. Special Permits & Variance Requested
  - c. Proposed Build-Out
    - i. Civic Space
      - a. Overview
      - b. Summary of Civic Space Study
      - c. Civic Space Plan
      - d. Preliminary Shadow Study
    - ii. Building Sites
      - a. Site Plan
      - b. Character Narrative (Character Perspectives + Aerial Drawings)
      - c. Build Out/Use Program Estimates
      - d. Massing Diagram
      - e. Context Analysis
    - iii. Transportation Improvements
      - a. Summary of TIS
      - b. Transportation Plans
        - i. New Transportation Network.
        - ii. New Thoroughfares Plan.
        - iii. Loading/Service Analysis.
        - iv. Parking Plan.
    - iv. Infrastructure Improvements
  - d. Implementation Plan
    - i. Anticipated Phasing
    - ii. Off Site Compliance

- iii. Demolitions & Relocation (Existing Businesses)
- iv. Future Sale/Conveyance of Land
- e. Project Benefits
  - i. Economic Development Benefits
  - ii. Public & Community Benefits
- f. Lot & Block Plans
- 3. City Policy & Zoning Review
  - a. Policy Review
  - b. Zoning Conformance Checklist
- 4. Appendices
  - a. Applicant Information (Title Report, Deed, Beneficial Interest Disclosure, Campaign Contribution Disclosure Form)
  - b. Neighborhood Meeting Minutes
  - c. Civic Space Study
  - d. Transportation Impact Study
  - e. Mobility Management Plan

### **C. Section Requirements**

- 1. Project Introduction
  - a. Applicant Information
    - i. Contact Information. Provide the company name, business address, telephone number, designated contact, & email address for each member or firm of the development team, including legal representation and all project consultants.
    - ii. Deed. Provide a copy of the property deed.
    - iii. Title Report. Provide the status of title to the property, including a property description (metes and bounds), names of titleholders and how title is held (joint tenancy, etc.), tax rate, encumbrances (mortgages, liens, deeds of trusts, recorded judgments), and real property taxes due.
    - iv. Legal Standing. Identify any existing legal judgments, actions, covenants, conditions, and/or restrictions that may control development, if applicable
    - v. Beneficial Interest Disclosure. A statement, signed, under the penalty of perjury, identifying the true names and addresses of every individual, partnership, corporation, trust, or other legal entity that has a legal or equitable direct or indirect ownership interest, or a contractual right to such interest, in the proposed development other than a mortgage or commitment for mortgage financing from: (i) a corporation, partnership, or trust the stock of which is listed for sale to the general public with the Securities and Exchange Commission or comparable regulatory body in a foreign country; (ii) a mutual insurance company or other entity owned by its policyholders; (iii) a pension fund or other employee benefit plan; or (iv) an insurance company, bank, or other entity subject to control, regulation, or examination by any state or federal regulatory agency or by a comparable regulatory body in a foreign country. The disclosure statement must identify the amount of the beneficial interest accurate to the one tenth of one percent if such interest exceeds one percent (1%).
    - vi. Campaign Contributions Declaration
  - b. Public Process Overview
  - c. Development Site Existing Conditions

- i. Locus Map. A context map indicating the location of the Development Site within the city and larger Boston metropolitan region.
  - ii. Development Site Plan. A map identifying all properties included in the Development Site.
  - iii. Transportation
- 2. Development Proposal
  - a. Project Description
    - i. Development Concept. Narrative concerning the development concept, planning objectives, vision and character of the neighborhood.
  - b. Nature of the Application
    - i. City Policy Consistency Review. City policy consistency review (SomerVision, USQ NP)
    - ii. Special Permits & Variances. Identification of an anticipated need or requests for Special Permits or Variances
  - c. Proposed Build Out
    - i. Civic Space

Applicants must analyze the existing and future demographics of the study area, provide a needs assessment, and propose new civic spaces by type. Parks & Open Space will collaborate with the Planning Division in evaluating these submittal materials. Applications must include the following:

      - a. Overview
      - b. Summary of Civic Space Study
      - c. Civic Space Plan
        - i. Map and table illustrating the proposed distribution of civic spaces (identify type and estimated size for each incl ac & sf; address USQ zoning compliance)
        - ii. Build out proposal; summary table of development site in total, estimated project phases, individual lots:
          - 1. Acres & Sq Ft of Civic Space,
          - 2. Public Realm Improvements;
          - 3. Amount of proposed in lieu (area)
        - iii. Preliminary Shadow Study
  - d. Building Sites
    - i. Site Plan. A plan clearly illustrating the bounds of the project area, all included lots, and approximate building footprints of the full build condition, proposed civic spaces, general locations of driveways, vehicular entrances, ground level entrances, upper story entrances, parking, loading and service areas, streets.
    - ii. Development Narrative (block by block)
      - a. Description of proposed building types for each lot (D2.1, D2.2, D2.3, etc) including estimates of the build-out/program estimates.
      - b. Comparison to neighborhood plan
      - c. Character Perspectives. Conceptual pedestrian level perspective drawings illustrating key locations within the development site.
      - d. Aerial Drawings. An aerial or skyline view of the project, as requested.
    - iii. Build Out Summary Table (in total & each lot); summary table of development site in total, estimated project phases, individual lots
      - a. Development Program (sf + % of total)



- i. Commercial total (estimated employees)
  - ii. Office/R&D (estimated employees)
  - iii. Arts & Creative (estimated employees)
  - iv. Retail/Restaurant (estimated employees)
  - v. Residential (also DU count); Permitted DUs, required ADUs, Commercial/DU; targets for different bedroom counts
  - vi. Hotel (also room count)
- b. Massing Diagram. A graphic or rendering of the generalized three-dimensional form of the proposed development in the context of existing buildings. The massing diagram must also be submitted electronically in .skp (SketchUp) format.
- c. Context Analysis. Isometric, elevation, or section drawings showing the relationship of the proposed development to the massing and height of surrounding buildings and major topographic features.
- e. Transportation Improvements

Applicants must analyze the impact of a development proposal upon the City's transportation network and determine the need for measures intended to mitigate, limit, or minimize, to the extent economically feasible, any adverse impact reasonably attributable to the proposed development. The Division of Transportation & Infrastructure will collaborate with the Planning Division in evaluating these submittal materials. Applications must include the following:

  - a. Overview
  - b. Summary of Transportation Impact Study
  - c. Transportation Plans
    - i. Transportation Network. Provide description and graphical maps illustrating existing and proposed thoroughfares, cycling infrastructure, and pedestrian circulation.
    - ii. New Thoroughfares Plan. Provide a 50' scale thoroughfare plan. This requirement may be waived if no new thoroughfares are proposed.
    - iii. Loading/Service Analysis. Provide a map of the anticipated locations of loading and unloading activities, including service and delivery, and access routes for each building site across the development site.
  - iv. Parking Plan...that includes the following:
    - 1. Total demand estimate (using CoS demand model)
      - a. Employee (commute by auto)
      - b. Resident (residential vehicle ownership estimate)
      - c. Short Term Visitor
      - d. Long Term Visitor
    - 2. Parking location map;
    - 3. Number of spaces provided indicating Commercial and Accessory allocations
    - 4. General locations of driveways, vehicular entrances into buildings, and major access points into the transportation network (such as an alley entry serving multiple buildings)
    - 5. Changes in parking from existing condition
    - 6. Parking Utilization
      - a. On street commercial and residential parking utilization study

- b. For any existing parking to remain with the project, perform a utilization study, including peak accumulation for motor vehicles, carpools, and bicycles. For residential projects, also collect utilization data for resident permit parking spaces within one block of the project site, separated by individual street. Report utilization data in a table.
      - v. Summary of the Mobility Management Plan
    - f. Infrastructure Improvements
      - i. Applicants must submit a description of existing utility conditions, analysis of the anticipated water and electricity consumption, sewage generation, and energy requirements of the proposed development; an evaluation of the adequacy of existing systems; and determine the need for measures to mitigate, limit, or minimize, to the extent economically feasible, any adverse impact reasonably attributable to the proposed development. The City Engineer will collaborate with the Planning Division in evaluating these submittal materials. Applications must include the following:
        - a. Maps of existing and any proposed improvements to major water delivery, sanitary sewer, storm drainage, electrical, telephone, data, CATV, and natural gas utilities for the entire development site.
      - ii. Review the Sustainable and Resilient Buildings Questionnaire required for the Site Development Plan Approval process and describe the extent to which sustainability and resilience measures might address utility impacts attributable to the proposed development. Reference the Climate Change Vulnerability Assessment and other studies conducted by the Office of Sustainability and Environment, as appropriate, for this analysis.
    - g. Implementation Plan
      - i. Anticipated Phasing
        - a. SQ ft of land uses/ dwelling units by each phase
        - b. Economic development estimates for each phase
        - c. Com/Res build out compliance (total & each phase)
      - ii. Off Site Compliance. Maps and tables identifying Generating/Receiving lots; Arts & Creative Enterprise floor space; Affordable dwelling units.
      - iii. Demolitions. A narrative concerning existing buildings to be demolished, fully retained, or partially preserved. Include a table identifying the commercial and residential floor area, the number of dwelling units, and the number of parking spaces to be demolished, fully retained, or partially preserved per lot.
      - iv. Relocations (Existing Businesses). A narrative, map, and table identifying existing businesses on properties that require relocation.
      - v. Future Sale/Conveyance of Land. Describe, to the best of your knowledge and ability, any future plans by the Applicant to sell or lease any lot intended as a building site to another entity, for the purpose of development or legacy, or for the Applicant to convey any civic space or thoroughfare (including alleys) to the City of Somerville or to otherwise maintain such civic space or thoroughfare in perpetuity.
    - h. Project Benefits
      - i. Economic Development Benefits
      - ii. Public & Community Benefits

- i. Lot & Block Plans
  - i. Dimensions Map (area, width, depth)
  - ii. Numerical Breakdown of each lot
  - iii. Civic Space v. Building Sites
  - iv. Generating & Receiving Sites
- 3. Policy & Zoning Review
  - a. Zoning Conformance Checklist
- 4. Appendices
  - a. Applicant Information (Title Report, Deed, Beneficial Interest Disclosure, Campaign Contribution Disclosure Form)
  - b. Neighborhood Meeting Minutes
  - c. Civic Space Study
  - d. Transportation Impact Study
  - e. Mobility Management Plan

# **City of Somerville**

## **Civic Space Study Submittal Requirements**

A Civic Space Study (CSS) is an analysis of existing civic space resources within walking distance to proposed development and anticipated impacts reasonably attributable to proposed development. The Transportation & Infrastructure Division is responsible for reviewing this study and certifying its completeness and accuracy to the Planning Board, prior to their review of a development review application.

The intent of this required analysis is to generate data on existing landscape amenities, the people who use civic spaces in a specific area, and City-wide open space needs. Analyzing this data should generate materials that are then presented to the public and discussed through the permitting process.

### **Document & Graphic Standards**

- All required materials must be submitted both physically and electronically:
  - Physical copies must be in the form of an 8.5"x11" portrait oriented booklet with a spiral coil binding. Plan sets or large maps, if included, must be provided on 11"x17" landscape oriented pages that fold into the booklet. Large documents may be split into a multi volume set of booklets.
  - Electronic copies must be submitted in PDF format on a labeled flash drive.
- Maps must include a title, north arrow, graphic scale, and reference to the data source. Each map should be either preceded by a narrative and followed by small caption under the image that describes what the reader is looking at. Narrative descriptions may be combined into any required section of analysis related to the corresponding map.

### **Required Table of Contents**

#### **Executive Summary**

- A. Existing Conditions Analysis
  - 1. Study Area
  - 2. Study Area Civic Spaces
  - 3. Walkshed Analysis
  - 4. Context Maps
  - 5. Demographic Analysis
- B. Needs Assessment
  - 1. Existing Plans
  - 2. Departmental Feedback
  - 3. Findings from Existing Conditions Analysis
  - 4. Neighborhood Feedback
  - 5. Conclusions

# City of Somerville

## Civic Space Study Submittal Requirements

### Existing Conditions Analysis

- Study Area. Provide a narrative description and map of an area extending ½ mile from any lot included in the development proposal. Number each civic space within the study area to correlate with the summary table that follows.
- Study Area Civic Spaces.
  - Summary Table. Using the template provided by the City of Somerville, identify the following for all civic spaces with the study area:
    - Name
    - Type
    - Square Footage
    - Acreage
    - % of Total
    - Civic Uses (top 3 within each space)
  - Description. For each sub-type identified in the proposed Zoning Overhaul, provide a summary description of the civic spaces within the study area. For example: “The study area includes [5] [neighborhood parks]’s that together total XXX square feet and xxx% of the available civic space. The largest [neighborhood park] is [name of park] at XXX square feet. The predominant civic uses within these spaces is [insert use #1] followed closely by [insert use #2]. Mention other interesting facts as applicable.
- Walkshed Analysis. Provide a narrative and map summarizing the capture area (market shed) and walkability to civic spaces within the study area. Group civic spaces by subtype from the proposed Zoning Overhaul and provide one combined map for each sub-type. Identify only the specific civic space or spaces the walkshed illustrates walkability to on each map. Lots included in the development proposal and the study area boundary must be identified.
- Demographic Analysis. Provide data (most recent US Census) describing the demographics of the study area by households, population, age, household income, and environmental justice population. Provide maps that identify the existing and future context of schools, daycare centers, senior centers, elderly housing, affordable housing (>6 units), residential buildings (>6 units), large employers, religious institutions.

### Needs Assessment

- Existing Plans
  - Reports/studies provides by the CoS (such as the fields analysis)
- Departmental Feedback
  - (Parks & Open Space , Director of Parks & Recreation, DPW, Police, Engineering, Capital Projects, Director of SomerStat)
- Findings from Existing Conditions Analysis
  - Physical conditions – “there is no \_\_\_\_\_ within ½ mile of the development site”

# **City of Somerville**

## **Civic Space Study Submittal Requirements**

- Preponderance of underserved populations within ½ mile
  - Adjacency to specific uses (Schools, Day Care, Senior Center, Large Employers, etc.)
- Neighborhood Feedback
  - Public feedback from the Neighborhood Meeting or other sources
  - Representative surveys performed by the city or Applicant (CoS must approve methodology)
- Conclusions
  - Provide a summary of the conclusions drawn to inform the Civic Space proposal that were derived from all of the above

# City of Somerville

## Transportation Impact Study Submittal Requirements

A Transportation Impact Study (TIS) is a required analysis of existing transportation infrastructure and anticipated impacts reasonably attributable to proposed development. The Transportation & Infrastructure Division is responsible for reviewing this study and certifying its completeness and accuracy to the Planning Board, prior to their review of a development review application.

### **Scope Determination**

- A. General
  - 1. The study area and scope of analysis must be approved by the Transportation & Infrastructure Division prior to the start of a Transportation Impact Study.
  - 2. A scoping request letter must be submitted to the Transportation & Infrastructure Division with a proposed scope prior to submittal of a development review application.
  - 3. Applicants are strongly encouraged to attend a pre-submittal meeting to assist in the determination of the study scope, but may submit a scoping request letter at any time prior to submittal of a development review application.
- B. Study Area Determination
  - 1. The Transportation & Infrastructure Division will issue a scope approval letter to allow preparation of the TIS which will indicate the following:
    - a. Any necessary changes to trip generation, trip distribution, or mode split assumptions;
    - b. Which study area roadways and intersections are to be analyzed (the study area);
    - c. Specific locations where daily vehicle, bicycle, and pedestrian counts are to be conducted;
    - d. What specific development projects are to be included in the future condition;
    - e. Whether analysis may be required that may require advanced traffic analysis software (VISSIM); and
    - f. Any other pertinent information about the specific TIS.
- C. Scoping Request Letters
  - 1. Required Table of Contents
    - a. Existing Conditions
      - i. Description
      - ii. Access Map
      - iii. Vehicle Trips
    - b. Proposed Development
      - i. Description
      - ii. Massing Diagram
      - iii. Access Map
    - c. Travel Trips
    - d. Trip Distribution

# City of Somerville

## Transportation Impact Study Submittal Requirements

- e. Proposed Study Area
- f. Proposed Study Scenarios
- 2. Existing Conditions
  - a. **Description.** A narrative describing the existing character of the neighborhood and summary table identifying the existing gross floor area within the development site for the following:
    - i. Commercial Total (gsf)
      - a. Office/R&D (gsf)
      - b. Arts & Creative (gsf)
      - c. Retail/Restaurant (gsf)
      - d. Hotel (gsf; rooms)
    - ii. Residential (units)
  - b. **Access Map.** A site plan showing existing building footprints, locations of driveways, vehicular entrances into buildings, major access points into the transportation network (such as an alley entry serving multiple buildings), ground level entrances, upper story entrances, parking, loading, and service areas to the extent known.
  - c. **Vehicle Trips.** A table and corresponding maps indicating entering and exiting vehicles during the am and pm peak hour for each existing building within the development site. Separate maps for each peak period shall be provided, with entering and exiting vehicle traffic shown separately on the same map in the following format: entering vehicle volume (exiting vehicle volume)
- 3. Proposed Development.
  - a. **Description.** A narrative concerning the development concept, planning objectives, vision and character of the neighborhood.
  - b. **Massing Diagram.** A three-dimensional massing diagram colored by major land uses and summary table that identifying the proposed build out for the development site in total, estimated project phases, and individual lots for the following:
    - i. Commercial Total (gsf; jobs)
      - a. Office/R&D (gsf; jobs)
      - b. Arts & Creative (gsf; jobs)
      - c. Retail/Restaurant (gsf; jobs)
      - d. Hotel (gsf; rooms)
    - ii. Residential (units)
  - c. **Access Map.** A site plan showing building footprints, locations of driveways, driveways, vehicular entrances into buildings, major access points into the transportation network (such as an alley entry serving multiple buildings), ground level entrances, upper story entrances, parking, loading, and service areas to the extent known.
- 4. Travel Trips



# City of Somerville

## Transportation Impact Study Submittal Requirements

- a. Modal splits must be based on the most recent U.S. Census journey-to-work data for the Census tract where the development site is located, unless an alternate is approved by the Transportation & Infrastructure Division.
- b. Person trips generated by the proposed development must be estimated based on data from the ITE Trip Generation Manual (latest edition) + 1 Standard Deviation multiplied by the Average Vehicle Occupancy (AVO) for the corresponding Census tract from the most current U.S. Census journey-to-work data.
- c. Motor vehicle trips must be estimated by multiplying the previously determined person trips by the proposed mode share for motor vehicles (“drive alone” plus “carpool” percentages). Anticipated truck trips must be added to the estimated motor vehicle trips. The following adjustments should be considered for the estimate of motor vehicle trips:
  - i. Internal Capture. Trips that remain on the local street network in the same neighborhood where development is located do not have regional transportation implications and a reduction of vehicle trips attributable to internal capture may be approved by the Transportation & Infrastructure Division. A study of 239 mixed-use sites in Atlanta, Boston, Houston, Portland, Sacramento and Seattle found an average of 18% internal capture. Fifty-nine of these sites were located in Boston, which had an internal capture rate of 16.9%.
  - ii. Pass-by trips. For projects including retail (non-ancillary) uses, a pass-by factor of up to 25% can be applied for site traffic associated with these retail uses assigned on the major through street. Pass-by trip factors of greater than 25% may be considered for certain uses, such as coffee shops, upon approval of the Transportation and Infrastructure Department. These pass-by trips can be removed from the overall vehicle trip generation, but should still be included in operations analysis and vehicle traffic volume graphics.
  - iii. Mobility Management. Programs and services that target and support alternative transportation modes help to influence travel behaviours of residents, employees, and visitors of new development and a reduction of vehicle trips attributable to mobility management may be approved by the Transportation & Infrastructure Division.
  - iv. Existing Conditions. Existing trips may be subtracted from the motor vehicle trips to generate a net new vehicle trip total, with approval of the Transportation & Infrastructure Division. Existing peak hour vehicle trips to/from the site must be determined through

# City of Somerville

## Transportation Impact Study Submittal Requirements

direct AM and PM peak hour counts by a certified traffic counting company.

- d. The balance of person trips must be allocated to other modes, including transit, bicycle, walking, etc. Trips listed as “other” in Census data must be proportionally assigned to all other modes.
  - e. Trip analysis must be summarized in a table format, indicating daily and peak hour (entering/exiting) trip rates, adjustments, and summarized with project trips by mode. Quantify project truck trips by time of day, vehicle type, and routes in a separate table.
- 5. Trip Distribution
  - a. AM and PM trip distribution must be illustrated graphically on a map of the study area roadways and intersections, including all segments carrying five (5) or more vehicle trips. Trip distribution is based, in part, on the most recent U.S. Census journey-to-work data unless data based on local observations is provided by the Transportation & Infrastructure Division (street light data).
  - b. Submission of U.S. Census journey-to-work data for the Census tract where the development site is located and a narrative describing the methodology to determine trip assignment must be included.
- 6. Proposed Study Area
  - a. Study area intersections will be determined by the Applicant and approved by the Transportation & Infrastructure Division and will, typically, include any intersection that is within or abuts the development site as well as any intersection that i) is anticipated to experience an increase in peak hour vehicle traffic volume of five percent (5%) or more; ii) is anticipated to experience an increase in peak hour vehicle traffic volume of ten percent (10%) or more on a given approach, with a minimum of twenty (20) additional vehicles; and iii) is anticipated to experience an increase in peak hour vehicle traffic volumes of ten percent (10%) or more for a given movement, with a minimum of ten (10) additional vehicles.
  - b. Study area roadways will be determined by the Transportation & Infrastructure Division, but are likely to include all roadways (excluding driveways, service roads, etc.) that approach study area intersections.
- 7. Proposed Study Scenarios
  - a. A TIS must provide analysis of existing conditions; a base-year Build condition, where trips associated with the proposed development are added to existing conditions; a base year build condition with proposed mitigation; and the addition of background trips and nearby development and infrastructure projects to the base year with proposed mitigation. The purpose of this method is to assess the impacts of projects on a

# City of Somerville

## Transportation Impact Study Submittal Requirements

transportation network operating similarly to the existing condition, before factoring in potential future growth. The order of analysis for this method is as follows:

- i. Base Year No Build ('existing conditions')
  - ii. Base Year Built Condition
  - iii. Base Year Built Condition with Mitigation
  - iv. Future Year Built Condition with Mitigation
- b. The Transportation & Infrastructure Division may require an alternative methodology for larger projects that may not be occupied for a number of years and that may have a more substantial impact on regional traffic to more closely match the methodology required for MEPA project review as follows:
- i. Existing Conditions
  - ii. Future Year No Build Conditions
  - iii. Future Year Built Condition
  - iv. Future Year Built Condition with Mitigation

# City of Somerville

## Transportation Impact Study Submittal Requirements

### Document & Graphic Standards

- A TIS may not be submitted as part of a development review application until a study scope has been approved by the Transportation & Infrastructure Division.
- The Transportation & Infrastructure Division determines if the TIS is complete and reliable and communicates such a finding to the Planning Board.
- A TIS must be prepared under the direction of and signed by a Massachusetts Registered Professional Engineer.
- All source ATR, TMC, and SYNCRO files must be submitted electronically, in their entirety, as specified.
- Appendices may be submitted only electronically, unless physical copies are required by the Transportation & Infrastructure Division.
- **Graphics in line with text to every extent practicable**

### Data Collection Standards

- Data may be collected up to a maximum of twelve (12) months in advance of submittal of the TIS in an application for development review. **Exceptions may be granted if approved by the Transportation and Infrastructure Department.**
- Motor vehicle, bicycle, and pedestrian counts should be avoided on municipal or religious holidays, holiday weekends, school vacations, etc.
- Counts taken in inclement weather (heavy rain or snow) are not valid. Light precipitation and extreme temperatures should be avoided.
- **If counts are not collected during the months of April, May, September, or October, a second set of counts taken during these months will be required as part of impact mitigation for the proposed development.**

# City of Somerville

## Transportation Impact Study Submittal Requirements

### Required TIS Table of Contents

- A. Introduction
  - 1. Development Overview (in relation to transportation)
  - 2. TIS Overview (summary of what a TIS is)
- B. Travel Demand Estimates
  - 1. Development Program
  - 2. Trip Generation
    - a. ITE Trips Generation Rates
    - b. Average Vehicle Occupancy
    - c. Mode Share
  - 3. Trip Distribution
    - a. Origin-Destination Patterns
    - b. Travel outside of Somerville
    - c. Travel within Somerville
    - d. Trip Distribution Map
- C. Study Area & Scenarios
  - 1. Study Area Map
  - 2. Corridor Descriptions
  - 3. Intersection Descriptions
- D. Transportation Analysis
  - 1. Analysis Conditions/Scenarios Overview
  - 2. Pedestrian Analysis
    - a. Context Overview
    - b. Existing Conditions (no build)
      - i. Pedestrian Volumes
        - a. Roadways
        - b. Intersections
      - ii. Street Life Analysis
      - iii. Crosswalk Analysis
    - c. Base Year Built Condition
      - i. Planned Improvements
      - ii. Pedestrian Trips
      - iii. Pedestrian Trip Distribution
      - iv. Street Life Analysis
      - ii. Proposed Mitigation
    - d. Base Year Built Condition with Mitigation
      - i. Planned Improvements
      - ii. Analysis (as applicable)
    - e. Future Year Built Condition with Mitigation

# City of Somerville

## Transportation Impact Study Submittal Requirements

- i. Planned Improvements
  - ii. Analysis (as applicable)
- 3. Transit Analysis
  - a. Context Overview
  - b. Existing Conditions (no build)
    - i. Existing Services
      - a. Existing Capacity
    - ii. Existing Stops/Stations
    - iii. Existing Connections
  - c. Base Year Built Condition
    - i. Planned Improvements (for included Phases)
      - a. Rapid Transit
      - b. Bus
      - c. Commuter Rail
    - ii. Capacity Analysis (Rapid Transit only)
      - a. Base Year Capacity
      - b. Base Year Ridership
      - c. Development Program (for included Phases)
      - d. Trip Generation (for included Phases)
      - e. Trip Assignment
      - f. Volume-to-Capacity Ratio
    - iii. Recommended Mitigation
  - d. Base Year Built Condition with Mitigation
    - i. Capacity Analysis (Rapid Transit only)
      - a. Base Year Capacity
      - b. Base Year Ridership
      - c. Development Program (for included Phases)
      - d. Trip Generation (for included Phases)
      - e. Trip Assignment
      - f. Volume-to-Capacity Ratio
  - e. Future Year Built Condition with Mitigation
    - i. Planned Improvements (for included Phases)
      - a. Rapid Transit
      - b. Bus
      - c. Commuter Rail
    - ii. Capacity Analysis (Rapid Transit only)
      - a. Base Year Capacity
      - b. Base Year Ridership
      - c. Development Program (for included Phases)
      - d. Trip Generation (for included Phases)
      - e. Trip Assignment
      - f. Volume-to-Capacity Ratio
    - iii. Recommended Mitigation

# City of Somerville

## Transportation Impact Study Submittal Requirements

4. Bicycle Analysis
  - a. Existing Conditions (no build) **CP1 + CP2/3**
    - i. Bicycle TMC's
    - ii. Bicycle Age/Gender Counts
    - iii. Bicycle Level of Traffic Stress
  - b. Base Year Built Condition **CP1 + CP2/3**
    - i. Planned Improvements
    - ii. Level of Stress Analysis (as applicable)
    - iii. Recommended Mitigation
  - c. Base Year Built Condition with Mitigation **CP1 + CP2/3**
    - i. Level of Stress Analysis (as applicable)
  - d. Future Year Built Condition with Mitigation **Network Changes Map**
    - i. Planned Improvements
    - ii. Level of Stress Analysis (as applicable)
    - iii. Recommended Mitigation
5. Motor Vehicle Analysis
  - a. Existing Conditions (no build) **CP1 + CP2/3**
    - i. Traffic Volumes
    - ii. Crash Data
    - iii. Intersection Capacity Analysis
  - b. Base Year Built Condition **CP1 + CP2/3**
    - i. Development Program (for included Phases)  
**(Phase 1 & 2 separately)**
    - ii. Trip Generation (for included Phases) [map]  
**(Phase 1 & 2 separately)**
    - iii. Intersection Capacity Analysis
    - iv. Recommended Mitigation
  - c. Base Year Built Condition with Mitigation **CP1 + CP2/3**
    - i. Intersection Capacity Analysis
  - d. Future Year Built Condition with Mitigation **Network Changes Map**
    - i. Development Program (for included Phases) **(all Phases)**
    - ii. Trip Generation (for included Phases) [map]
    - iii. Planned Thoroughfare Improvements
    - iv. Intersection Capacity Analysis
    - v. Recommended Mitigation

# **City of Somerville**

## **Transportation Impact Study Submittal Requirements**

### **TIS Introduction**

- A. Development Overview (in relation to transportation)
- B. TIS Overview (summary of what a TIS is)

### **Travel Demand Estimates**

- A. Development Program
- B. Trip Generation
  - 1. ITE Trips Generation Rates. Provide the trip generation material from the approved scoping request letter
  - 2. Average Vehicle Occupancy
  - 3. Mode Share. Provide the mode share material from the approved scoping request letter.
- C. Trip Distribution
  - 1. Origin-Destination Patterns
  - 2. Travel outside of Somerville
  - 3. Travel within Somerville
  - 4. Trip Distribution Map. Provide the map of the Motor-Vehicle Trip Distribution from the approved scoping request letter.

### **Study Area**

- A. Map.
- B. Corridors. Identify the typical number of travel lanes and widths, bicycle accommodations and widths, sidewalk width and condition, and parking for each road segment in the study area. Include any qualitative information about the pedestrian and bicycle environment along the roadway, e.g. curb cut frequency and widths, presence and frequency of street trees, presence of bicycle racks, etc. Sidewalk width must be measured at a typical point along the length of each sidewalk (i.e. not at bump-outs), and identify the full width of the sidewalk in total, the width of the furnishing zone, the width of the walkway, and, if present, the width of the curb walk and frontage area along both sides of each study area road segment. If sidewalks are in poor condition, i.e. difficult or impassable for persons with disabilities, this too should be noted.
- C. Intersections. Describe operations for each study area intersections, including number and width of lanes for each approach, lane assignments, signal phasing, and crosswalk locations, patterns, and widths. At signalized intersections, crosswalk lengths, signal phasing, and pedestrian WALK and flashing DON'T WALK time must be provided. Intersection treatments for bicycles and pedestrians must be described. Provide traffic signal timing information for each study area intersection. Data will be provided by the City of Somerville, if available. If such information is unavailable, signal timings must be collected by the Applicant in the field and modeled as accurately as possible.



# City of Somerville

## Transportation Impact Study Submittal Requirements

### Transportation Analysis

#### **A. Analysis Conditions/Scenarios Overview**

Describe the TIS Scenarios

#### **B. Pedestrian Analysis**

1. Context Overview. Provide an overview of the proposed development and Study Area in relation to pedestrian activity and general walkability.
2. **Base Year No Build.** The Base Year No Build scenario reflects existing conditions within the Study Area, including any transportation network improvements that are imminent or under construction.
  - a. Pedestrian Volumes. Describe when and where pedestrian volume data was collected.
    - i. Roadways
      - a. Pedestrian Age/Gender counts must be recorded at all ATR sites, at minimum, and any additional locations required by the Transportation & Infrastructure Division, per the approved Scope. The Transportation & Infrastructure Division will provide data sheets for the Age/Gender counts. Data is generated by estimating the age and gender of each pedestrian passing over an imaginary line across the sidewalk on both sides of a street for 10 minutes each hour from 7AM through 9PM. Multiply the total number of pedestrians counted by 6 to estimate a total for each hour. Children carried or pushed in strollers; people using skates, skateboards, or scooters; and cyclists walking their bikes are counted as a pedestrian.
      - b. Provide a Summary Table of observed pedestrian volumes for each hour for all pedestrian age/gender count roadways included in the Study Area, per the approved Scope. Identify the peak number of pedestrians in the bottom row with the hour in parenthesis; for example: 206 (12-1pm).
      - c. Provide a narrative and summary table of findings for the age and gender of pedestrians. Include the full age/gender data for each location in the Appendix and electronically in excel format.
    - ii. Intersections
      - a. Pedestrians crossing the street must be recorded for all study area intersections. Count pedestrian volumes in each direction for each side of the street, regardless of whether a crosswalk is provided. Counts should be done concurrently when vehicle turning movement counts (TMC's) are conducted. Children carried or pushed in

# City of Somerville

## Transportation Impact Study Submittal Requirements

strollers; people using skates, skateboards, or scooters; and cyclists walking their bikes are counted as a pedestrian. Pedestrians crossing outside of designated areas (e.g. diagonally across an intersection) must be noted as such.

- b. Provide a narrative that identifies intersections with the highest levels of observed pedestrian activity in the study area and map(s) of existing pedestrian volumes for the AM, mid-day and PM peak periods.

- b. **Street Life Analysis.** Calculate the level of pedestrian activity for each roadway where existing pedestrian Age/Gender counts were collected. Pedestrian activity is calculated as the number of pedestrians per minute divided by the clear width of the walkway. Data and measurements are combined for both sides of the street. Clear walkways width does not include any width dedicated to street furnishings or trees for the typical sidewalk section individually. Describe the rating achieved for each roadway for the AM, mid-day, and PM peak periods as follows:

	<u>(ped/min/ft)</u>
Calm	<5
Active	5-7
Lively	7-10
Bustling	10-15
Jammed	15-23
Overcrowded	>23

- c. **Crosswalk Analysis.** Provide an analysis of pedestrian crossing activity for all study areas intersections. Determine the Pedestrian Level of Service (PLOS) using equation 18-5 (signalized intersections) and 18-21 (unsignalized intersections) from the Highway Capacity Manual (HCM) 2000 to quantify pedestrian delay. Provide a summary description of how PLOS is calculated according to the HCM standards and a table with the AM, mid-day, and PM peak period PLOS for each crossing movement of study area intersections. The table must identify the intersection, crossing location, crossing length, crossing time necessary based on a 3.5 foot per second walking speed, the WALK time, flashing DON'T WALK time, cycle length, delay, and PLOS score. *This analysis helps to predict the amount of jaywalking at study area intersections. Intersections with "A" or "B" pedestrian LOS will have a high degree of compliance. Intersections with "C" or "D" LOS will have a moderate amount of jaywalking. Intersections with "E" or "F" LOS, well, can expect to have lots of jaywalking.*

3. **Scenario A:** The first scenario for analysis is the Base Year Built Condition where development generated trips are added to the No Build Condition. If the

# City of Somerville

## Transportation Impact Study Submittal Requirements

proposed development includes multiple phases, the Transportation and Infrastructure Division may require multiple versions of this scenario to separately analyze the different phases.

- a. **Planned Improvements.** Identify any known improvements to pedestrian infrastructure for any study area roadways and intersections applicable to this scenario.
- b. **Pedestrian Trips.** Identify transit-oriented and local pedestrian trips generated by proposed development. Transit-oriented trips are pedestrian trips made between development sites and the study area transit stations for project trips assigned to the transit mode share. Local trips are pedestrian trips that are solely made by walking and not assigned to any other mode of travel. Provide a summary description and table identifying the AM, mid-day, and PM peak and daily totals of transit-oriented and local pedestrian trips for each phase of development included in the scenario.
- c. **Pedestrian Trip Distribution.** Provide a narrative describing the methodology, a map, and a summary table assigning development related pedestrian trips (both transit-oriented and local trips) to study area roadways and intersections. Provide a map of pedestrian volumes for the AM, mid-day, and PM peak periods (existing conditions + project trips).
- d. **Street Life Analysis.** Repeat the Street Life Analysis required for the No Build Condition. Project related pedestrian trips assigned to each roadway segment must be added to the existing pedestrian volumes to determine the new level of pedestrian activity on each roadway segment for the scenario. Describe the rating achieved for each roadway for the AM, mid-day, and PM peak periods as follows:

	<u>(ped/min/ft)</u>
Calm	<5
Active	5-7
Lively	7-10
Bustling	10-15
Jammed	15-23
Overcrowded	>23

- e. **Crosswalk Analysis.** Repeat the Crosswalk Analysis required for the No Build condition. Identify any study area intersections with an E or F PLOS rating that will experience either of the following:
  - i. an increase in pedestrian crossings due to project related pedestrian trips, or
  - ii. an increase in pedestrian delay of more than 4 seconds due to any changes to study area intersections

# City of Somerville

## Transportation Impact Study Submittal Requirements

- f. **Recommended Mitigation.** Provide recommended mitigation for any roadways that are estimated to become 'jammed' or 'overcrowded' and any crossings where pedestrian trips are added to an intersection with an E or F PLOS rating. Discuss the benefits and drawbacks (if any) of proposed mitigation; for example, widening sidewalks may improve walking conditions, but reduce the right-of-way width available for other modes or have an impact on adjacent development.
- 4. **Scenario B:** The second scenario for analysis is the Base Year Built Condition with Mitigation where recommended improvements to mitigate the impact of development related trips are added to the Base Year Built Condition.
  - a. **Street Life Analysis.** Repeat the street life analysis required for Scenario A with recommended mitigation included.
  - b. **Crosswalk Analysis.** Repeat the crosswalk analysis required for the No Build condition with recommended mitigation included.
- 5. **Scenario C:** The third scenario for analysis is the Future Year Built Condition with Mitigation where development generated trips for all phases of development are added to the Future Year network and any recommended improvements to mitigate the impact of development related trips are included.
  - a. **Planned Improvements.** Identify any known improvements to pedestrian infrastructure for any study area roadways and intersections for the scenario.
  - b. **Street Life Analysis.** Repeat the street life analysis required for Scenario B with recommended mitigation included.
  - c. **Crosswalk Analysis.** Repeat the crosswalk analysis required for Scenario B with recommended mitigation included.

# City of Somerville

## Transportation Impact Study Submittal Requirements

### C. Public Transit Analysis

Public Transit Analysis must include an overview and existing conditions analysis that identifies transit services within the study area, connections to regional transit services, and the capacity of those services along with a analysis of trips generated by proposed development, the distribution of those trips into the transit system, evaluation of planned capacity compared to demand, and propose improvements to mitigate the impact of those additional trips.

1. Context Overview. Provide an overview of the proposed development and Study Area in relation to public transportation.
2. Base Year No Build. The Base Year No Build scenario reflects existing conditions within the Study Area, including any transportation network improvements that are imminent or under construction.
  - a. **Existing Services.** Provide a description, map, and one or more summary tables of the transit services available within the study area. The summary table(s) must identify the following:
    - i. Name (Green Line, 88, 90, EZRide, etc.)
    - ii. Type of service (heavy rail, light rail, bus, etc.)
    - iii. Capacity
      - a. Bus
        1. Peak Trips (Hourly Avg of all trips)
        2. Bus Capacity (MBTA Service Delivery Policy)
        3. Total Peak hour Capacity
      - b. Heavy/Light Rail
        1. Trips per Hour (Based on Peak Hour Headway)
        2. Train Capacity (MBTA Service Delivery Policy)
        3. Total One-way Line Capacity
    - iv. Ridership Statistics
      - a. Bus
        1. Weekday, saturday, and sunday inbound, outbound, and total ridership
      - b. Heavy Rail/Light Rail
        1. Weekday ridership
    - V. Headway Times
      - a. Bus
        1. Weekday AM peak, AM base, PM base, PM peak, late night and weekend saturday and sunday peak time periods
      - b. Heavy Rail/Light Rail
        1. Weekday, Saturday, and Sunday rush hour, midday, evening, late night time periods
  - b. **Existing Stops/Stations.** Provide a description, including physical condition, and summary table for the nearest stop or station to each lot within the development site for each transit service. Stops or stations that

# City of Somerville

## Transportation Impact Study Submittal Requirements

are closest to multiple lots may be described for the first lot and then referenced for subsequent lots. The summary table must identify the walking distance in feet, the average walking time, and average wait time. If available, on-time performance and average occupancy of each route at the stop or station should also be provided.

- c. **Existing Connections.** Identify and describe the key transportation services available within one transfer from the development site, including commuter rail, rapid transit, and any bus lines accessible at transportation hubs.
  - iv. **Capacity Analysis.** Determine the baseline capacity of existing rapid transit services (non bus) of the study area. Based on existing ridership statistics from the MBTA/CTPS, evaluate the volume-to-capacity ratio (load factor) of existing transit services of the study area. Provide a narrative describing the analysis and results.
3. **Scenario A:** The first scenario for analysis is the Base Year Built Condition where development generated trips are added to the No Build Condition. If the proposed development includes multiple phases, the Transportation and Infrastructure Division may require multiple versions of this scenario to separately analyze the different phases.
- a. **Planned Improvements.** Identify any improvements to rapid transit, bus, and commuter rail infrastructure or services interrelated to transit services within the Study Area that are funded by the MBTA's future capital improvement program.
  - b. **Transit Trips.** Identify transit trips generated by the proposed development. Provide a summary description and table identifying the AM and PM peak and daily totals of transit trips, by transit service type (heavy rail, light rail, bus, etc.), for each phase of development included in the scenario.
  - c. **Transit Trip Distribution.** Provide a narrative describing the methodology, a map, and a summary table assigning development related transit trips among all available study area transit services based on the trip distribution established in the approved Scope. Include the weekday AM peak and PM peak periods, weekday evenings, Saturday, and Sunday time periods.
  - d. **Capacity Analysis.** Building upon the capacity analysis completed for the Base Year No Build scenario, evaluate the volume-to-capacity ratio (load factor) of individual bus routes and rapid transit lines servicing the study area. Project related transit trips must be added to the existing volumes to determine the new level of ridership for each transit service. Provide a narrative describing the analysis and results.
  - e. **Recommended Mitigation.** Provide recommended mitigation for transit services where a capacity shortfall is identified. Mitigation should be intended to maintain the attractiveness of the transit system as an

# City of Somerville

## Transportation Impact Study Submittal Requirements

alternative to automobile travel and may include, for example, modifying or extending bus routes, adding peak hour buses to reduce headway times, or mobility management initiatives designed to reduce demand.

Discuss the benefits and drawbacks (if any) of proposed mitigation.

4. **Scenario B:** The second scenario for analysis is the Base Year Built Condition with Mitigation where recommended improvements to mitigate the impact of development related trips are added to the Base Year Built Condition.
  - a. **Capacity Analysis.** Repeat the transit capacity analysis required for Scenario A with recommended mitigation included.
5. **Scenario C:** The third scenario for analysis is the Future Year Built Condition with Mitigation where development generated trips for all phases of development are added to the Future Year network and any recommended improvements to mitigate the impact of development related trips are included.
  - a. **Planned Improvements.** Identify any improvements to rapid transit, bus, and commuter rail infrastructure or services interrelated to transit services within the Study Area that are funded by the MBTA's future capital improvement program.
  - b. **Capacity Analysis.** Repeat the transit capacity analysis required for Scenario A with recommended mitigation included.

# City of Somerville

## Transportation Impact Study Submittal Requirements

### D. Bicycle Analysis

1. Context Overview. Provide an overview of the proposed development and Study Area in relation to local and regional bicycle commuting and recreational bicycling.
2. **Base Year No Build.** The Base Year No Build scenario reflects existing conditions within the Study Area, including any transportation network improvements that are imminent or under construction.
  - a. **Existing Facilities.** Provide a description and map of the existing on- and off-street bicycling facilities available within the Study Area.
  - b. **Bicycle Volumes.** Describe when and where pedestrian volume data was collected.
    - i. Roadways
      - a. Bicycle Age/Gender Counts must be recorded at all ATR sites, at minimum, and any additional locations required by the Transportation & Infrastructure Division, per the approved Scope. The Transportation & Infrastructure Division will provide data sheets for the Age/Gender counts. Data is generated by estimating the age and gender of each cyclist passing over an imaginary line across the sidewalk on both sides of a street for 10 minutes each hour from 7AM through 9PM and extrapolated for the full hour (multiply the hourly total by 6). Children riding with their parents are counted as a separate cyclist.
      - b. Provide a Summary Table of observed bicycle volumes for each hour for all bicycle age/gender count locations included in the Study Area, per the approved Scope. Identify the peak number of bicyclists in the bottom row with the hour in parenthesis; for example: 206 (12-1pm).
      - c. Provide a narrative and summary table of findings for the age and gender of bicyclists. Include the full age/gender data for each location in the Appendix and electronically in excel format.
    - ii. Intersections
      - a. Bicycle turning movement counts (TMC's) must be recorded at all study area intersections. Counts should be done concurrently when vehicle turning movement counts (TMC's) are conducted. Count the number of bicyclists on each approach and their associated turning movement, including prohibited bicycle movements to or from a one-way street or similar. Bicyclists crossing on their bikes in crosswalks should be noted separately.



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- b. Provide a narrative that identifies intersections with the highest levels of observed bicycle activity in the study area and map(s) of existing bicycle volumes for the AM, mid-day and PM peak periods.
  - b. **Level of Stress Analysis.** Analysis must be conducted along each study area roadway using Level of Traffic Stress (LTS) methodology. Each roadway segment and each direction of travel must be analyzed; if conditions change within a segment, e.g. at an intersection approach, the highest-stress portion of that segment will represent the entire segment. Provide a narrative description and color-coded map to explain the analysis.
  - c. **Intersection Delay Analysis.** Average bicyclist delay must be calculated at all signalized intersections in the study area. For approaches with a bicycle lane, it shall be assumed that bicyclists experience control delay only; i.e. all bicyclists clear the intersection quickly when the indicator turns green, and bicyclists that arrive at a green light experience zero delay. For approaches without a bicycle lane, it shall be assumed that all bicyclists use the full travel lane and experience similar delay as motor vehicles.
- 3. **Scenario A:** The first scenario for analysis is the Base Year Built Condition where development generated trips are added to the No Build Condition. If the proposed development includes multiple phases, the Transportation and Infrastructure Division may require multiple versions of this scenario to separately analyze the different phases.
  - a. **Planned Improvements.** Identify any known improvements to bicycle infrastructure for any study area roadways and intersections applicable to this scenario.
  - b. **Bicycle Trips.** Identify bicycle trips generated by the proposed development. Provide a summary description and table identifying the AM and PM peak and daily totals of bicycle trips for each phase of development included in the the scenario.
  - c. **Bicycle Trip Distribution.** Provide a narrative describing the methodology, a map, and a summary table assigning development related bicycle trips based on the trip distribution established in the approved Scope. Include the weekday AM peak and PM peak periods, weekday evenings, Saturday, and Sunday time periods.
  - d. **Level of Stress Analysis.** Repeat the bicycle Level of Traffic Stress (LTS) analysis required for the No Build condition for any Study Area roadway where bicycle infrastructure was altered from the No Build condition.
  - e. **Intersection Delay Analysis.** Repeat the Intersection Delay Analysis required for the No Build condition.

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- f. **Proposed Mitigation.** Provide recommended mitigation for any study area intersection with a negative change in level of service. Discuss the benefits and drawbacks (if any) of proposed mitigation; for example, signal retiming may result in a reduction in overall vehicle delay, but may increase delay on one approach.
- 4. **Scenario B:** The second scenario for analysis is the Base Year Built Condition with Mitigation where recommended improvements to mitigate the impact of development related trips are added to the Base Year Built Condition.
  - a. **Level of Stress Analysis.** Repeat the bicycle [Level of Traffic Stress \(LTS\)](#) analysis required for No Build condition/Scenario A with recommended mitigation included
  - b. **Intersection Delay Analysis.** Repeat the Intersection Delay Analysis required for Scenario A with recommended mitigation included.
- 5. **Scenario C:** The third scenario for analysis is the Future Year Built Condition with Mitigation where development generated trips for all phases of development are added to the Future Year network and any recommended improvements to mitigate the impact of development related trips are included.
  - a. **Planned Improvements.** Identify any known improvements to bicycle infrastructure for any study area roadways and intersections for the scenario.
  - b. **Level of Stress Analysis.** Repeat the bicycle [Level of Traffic Stress \(LTS\)](#) analysis required for Scenario B with recommended mitigation included.
  - c. **Intersection Delay Analysis.** Repeat the Intersection Delay Analysis required for Scenario B with recommended mitigation included.

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## Transportation Impact Study Submittal Requirements

### E. Motor Vehicle Analysis

1. Context Overview. Provide an overview of the proposed development and Study Area in relation to local and regional bicycle commuting and recreational bicycling.
2. **Base Year No Build.** The Base Year No Build scenario reflects existing conditions within the Study Area, including any transportation network improvements that are imminent or under construction.
  - a. Traffic Volumes. Describe when and where traffic volume and TMC data was collected.
    - i. Roadways.
      - a. Motor vehicle traffic data must be collected using Automatic Traffic Recorders (ATR). Hourly volume and 85th percentile speed for each type of vehicle class over a 72-hour period from 12:00:00 am Thursday through 11:59:59 pm Saturday must be provided in the TIS. ATR count locations and count dates must be approved by the Transportation and Infrastructure Division prior to data collection. ATR data must be seasonally adjusted, in accordance with the nearest MassDOT permanent count station (non-limited access highway) data; if appropriate MassDOT data is not available, MAPC data may be substituted with the approval of the Transportation and Infrastructure Division. Full 15-minute increment results must be submitted electronically. An average daily summary in one-hour increments must be included in the TIS.
    - ii. Intersections.
      - a. Turning movement counts (TMC's) and queues must be collected at all signalized traffic study area intersections. TMC's must be collected at all unsignalized intersections, with queues collected only where specified by Transportation & Infrastructure Division during scoping. TMC's will be for the weekday periods 7:30-9:30 am and 4:30-6:30 pm; retail projects must also include a Saturday 11:00 am-1:00 pm midday peak. If counts are not collected during the months of April, May, September, or October, then a second set of counts must be taken during these months as part of mitigation for the project. Locations must receive prior approval by the City of Somerville. All TMC's should include:
        - i. Total cars, trucks, and buses, reported separately by each movement;

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## Transportation Impact Study Submittal Requirements

- ii. Pedestrians, by each crossing, each direction, and each side of street;
  - iii. Bicycle turning movements, by street and direction, including bikes on sidewalks (counted separately); and
  - iv. Average queue counts, by lane, for each approach at signalized intersections. Queues are measured by counting the number of waiting vehicles immediately before receiving a green indication.
- b. At the end of each 15-minute period, the length of the queue that did not clear the intersection in the last green cycle of the period (if any) shall be recorded. If such a queue is present at the end of the consultant-determined peak hour, this total queue shall be added to the hourly total for each such approach, distributed proportionally among each movement.

TMC's should not be taken at the following times where possible. If necessary, they must be approved by T&I. Such data shall be seasonally adjusted, as follows (these guidelines are cumulative):

- i. When colleges are not in regular session, increase by 3 to 6 percent, depending on proximity to colleges. Adjustment to be approved by T&I.
  - ii. When public schools are not in session, increase by 3 to 5 percent, depending on proximity to public schools. Adjustment to be approved by T&I.
  - iii. During July and August employee summer vacations. Increase by 4 percent.
- c. Raw TMC and queue data collection sheets shall be included in an Appendix to the TIS. Data must be submitted electronically in Excel format. Peak hours shall be determined for the study area as a whole unless otherwise directed by T&I. Vehicle traffic counts for this peak hour shall be balanced between study area intersections unless discrepancies can be reasonably assigned to intersections and driveways not included in the study area. Peak hours for bicycles and pedestrians shall be determined separately, though volumes do not need to be manually balanced. TMC's for total vehicles in the am and pm peak hour shall be summarized on separate figures. TMC's for total vehicles in the am and pm shall be summarized on separate figures. TMC's for pedestrians

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and bicycles shall be shown in separate figures. Vehicle queues for am and pm peak hours shall be summarized in a single figure, if possible, or two separate figures if needed for clarity. The appropriate peak hour for the corresponding mode shall be clearly labeled on each figure.

- b. **Crash Data.** Traffic crash data must be provided in a summary table for the previous 3-year period by date, crash type, injury, involvement of trucks and/or MBTA buses, involvement of pedestrians and/or bicycles, lighting, surface condition, and weather. Data will be provided by the Transportation & Infrastructure Division.
3. **Scenario A:** The first scenario for analysis is the Base Year Built Condition where development generated trips are added to the No Build Condition. If the proposed development includes multiple phases, the Transportation and Infrastructure Division may require multiple versions of this scenario to separately analyze the different phases.
  - a. **Planned Improvements.** Identify any known improvements study area roadways and intersections applicable to this scenario.
  - b. **Vehicular Trips.** Identify motor vehicle trips generated by the proposed development. Provide a summary description and table identifying the AM and PM peak and daily totals of vehicle trips for each phase of development included in the the scenario.
  - c. **Vehicle Trip Distribution.** Provide a narrative describing the methodology, a map, and a summary table assigning development related vehicle trips based on the trip distribution established in the approved Scope. Include the weekday AM peak and PM peak periods, weekday evenings, Saturday, and Sunday time periods.
  - d. **Intersection Capacity Analysis.** Vehicle Level-of-Service (LOS) capacity analysis must be conducted for each study area intersection (Signalized and stop-controlled) for the weekday AM and PM peak hours and for the Saturday midday peak hour using the most recent edition of the Highway Capacity Manual (HCM) methodology, including software such as Synchro or similar. In some cases, the Transportation & Infrastructure Division may request an in-depth analysis using software such as VISSIM for complex intersections or intersection clusters; in this case, T&I will notify the proponent of this need when scoping the project and prior to data collection. Items to consider when performing traffic analysis include:
    - i. Existing Conditions models must be calibrated with observed conditions in the field. Observed conditions such as average delay, queue length, and capacity of the intersection should, within reason, match the conditions output by the traffic analysis. Factors such as saturated flow rate, parking maneuvers, pedestrian and bicycle conflicts, bus maneuvers, and area type may be adjusted

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## Transportation Impact Study Submittal Requirements

- based on engineering judgement in order to calibrate the existing conditions model.
- ii. Peak Hour Factor shall be determined on an approach-by-approach basis (not a movement-by-movement basis) unless a particular movement has a dedicated lane and, for a known reason, produces more variable traffic than the other movements along its approach.
  - iii. Capacity analysis summary tables (CASTs) shall be provided for each peak hour analyzed and shall include LOS letter grade, average delay, volume-to-capacity ratio (V/C), and 50th/95th percentile queue lengths (95th percentile only for unsignalized intersections). HCM 2000 methodology shall be used unless otherwise otherwise directed by T&I. CASTs shall include overall intersection LOS letter grade, delay, and V/C. All intersections and lane groups that are over 1.00 V/C shall receive an LOS letter grade of F regardless of the average delay reported.
  - e. **Recommended Mitigation.** Provide recommended mitigation for any study area intersection with a negative change in level of service and any intersection with an increase in the length of vehicle queues. Discuss the benefits and drawbacks (if any) of proposed mitigation; for example, signal retiming may result in a reduction in overall vehicle delay, but may increase delay on one approach.
4. **Scenario B:** The second scenario for analysis is the Base Year Built Condition with Mitigation where recommended improvements to mitigate the impact of development related trips are added to the Base Year Built Condition.
- a. **Intersection Capacity Analysis.** Repeat the Intersection Capacity Analysis required for Scenario A with recommended mitigation included.
5. **Scenario C:** The third scenario for analysis is the Future Year Built Condition with Mitigation where development generated trips for all phases of development are added to the Future Year network and any recommended improvements to mitigate the impact of development related trips are included.
- a. **Planned Improvements.** Identify any known improvements to any study area roadways and intersections for the scenario.
  - c. **Intersection Capacity Analysis.** Repeat the Intersection Capacity Analysis required for Scenario B with recommended mitigation included.

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## Transportation Impact Study Submittal Requirements

- Proposed Mitigation
  - Measures may include, but are not limited to, the following:
    - Intersection improvements
      - Geometry (additional turning lanes within existing ROW)
      - Travel direction reversal; one to two way conversion
      - Signal controls and equipment
      - Signal timing
      - Pavement markings
      - Curb cut locations
    - Pedestrian accommodations
      - Crossing markings
      - Pedestrian signals
      - Sidewalks
      - Pedestrian amenities
    - Bicycle accommodations
      - Bicycle lanes
      - Bicycle signals
      - Off-street bicycle facilities
      - Public bicycle parking (bike corrals, etc.)
    - Transit service enhancements
      - Station improvements/relocations
      - New service
      - Improved routing
      - Monetary payments to MBTA offsetting impact
      - Private transit services (shuttles)
    - Adjacent Public and Private Infrastructure Improvements
      - Transit shelters
      - Benches
      - Street furniture
      - Parklets
      - Bicycle repair stations



**CITY OF SOMERVILLE, MASSACHUSETTS**  
***MAYOR'S OFFICE OF STRATEGIC PLANNING & COMMUNITY DEVELOPMENT***  
**JOSEPH A. CURTATONE**  
**MAYOR**

MICHAEL F. GLAVIN  
EXECUTIVE DIRECTOR

**Mobility Management Plan  
Submission Requirements**

A Mobility Management Plan (MMP) documents commitments by a property owner to implement programs and services that reduce the demand for parking associated with proposed development and ongoing reporting and monitoring to improve implementation of the plan.

The Transportation & Infrastructure Division is responsible for reviewing the plan and certifying its completeness and accuracy to the Planning Board, prior to their review of a development review application.

For development proposals that require a Coordinated Development Plan Special Permit, provide information to the best of your knowledge and ability at the time of submittal.

**1. Project Information**

- a. **Contact Information.** Development site address or project name, company name, business address, telephone number, designated contact, and email address for the Applicant.
- b. **Project Description.**
- c. **Build Out/Program Estimates.** (in total & each lot); summary table of development site in total, estimated project phases, individual lots
  - i. Development Program (sf + % of total)
    1. Commercial total (estimated employees)
    2. Office/R&D (estimated employees)
    3. Arts & Creative (estimated employees)
    4. Retail/Restaurant (estimated employees)
    5. Residential (also DU count); Permitted DUs, required ADUs, Commercial/DU; targets for different bedroom counts
    6. Hotel (also room count)
- d. **Anticipated Phasing.** Map/diagram and summary table
  - i. Lots identified by phase.
  - ii. GSQ ft of land uses/ dwelling units/ employees by each phase
- e. **Parking Plan.**
  - i. Total demand estimate (using CoS demand model)
  - ii. Parking location map (same as TIS)





- iii. Number of spaces provided indicating Commercial and Accessory allocations
- iv. Changes in parking from existing condition

**f. Nearby Transit Services**

i. Narrative & Data

- 1. Provide a description, map, and summary table of the transit services available within the study area. The summary table must identify the following:
  - a. Name (Green Line, 88, 90, EZRide, etc.),
  - b. Type of service (heavy rail, light rail, bus, etc.);
  - c. Ridership Statistics
    - i. Bus
      - 1. Weekday, saturday, and sunday inbound, outbound, and total ridership
    - ii. Heavy Rail/Light Rail
      - 1. Weekday
  - d. Headway Times
    - i. Bus
      - 1. Weekday AM peak, AM base, PM base, PM peak, late night and weekend saturday and sunday peak time periods
    - ii. Heavy Rail/Light Rail
      - 1. Weekday, Saturday, and Sunday rush hour, midday, evening, late night time periods
- 2. Provide a description, including physical condition, and summary table for the nearest stop or station to each lot within the development site for each transit service. Stops or stations that are closest to multiple lots may be described for the first lot and then referenced for subsequent lots. The summary table must identify the walking distance in feet, the average walking time, and average wait time. If available, on-time performance and average occupancy of each route at the stop or station should also be provided.

**g. Bicycle Network**

- i. Description and summary analysis/findings from TIS

**h. Sidewalks**

- i. Description and summary analysis/findings from TIS

**2. Mode Split/Trip Generation**

- a. Provide the mode splits and trip generation material from the TIS scoping request letter, as modified by the scope approval letter provided by the Transportation & Infrastructure Division.
  - i. Existing condition modal splits must be based on the most recent U.S. Census journey-to-work data for the Census tract where the development site is located, unless an alternate is approved by the Transportation & Infrastructure Division.
  - ii. Summarize Trip Generation methodology from TIS.
  - iii. Trip data must be provided in a table format, indicating daily and peak hour (entering/exiting) trip rates, adjustments, and summarized with project trips by mode.
- b. Property owners are required to commit to reasonable efforts to control the the percentage of trips made to the site by automobile at goal of 50% or less, consistent with SomerVision. The mobility management plan must state this objective (or better) as the

mode split goal for the proposal, along with a commitment to make reasonable efforts to achieve this goal.

**3. Programs and Services**

- a. Describe all required and voluntary Mobility Management programs and services the property owner or employer will use to reduce trips made by automobile and encourage residents, employees, and visitors to walk, ride a bike, or take transit.
  - i. Financial Incentives
  - ii. Shared Vehicle Services
  - iii. Alternative Schedules
  - iv. Marketing & Education
  - v. Parking Management
  - vi. On-Site Services
  - vii. Others
- b. For property owners, describe the programs and services tenants will be held to through lease agreements and provide sample text of the proposed lease agreement.

**4. Monitoring and Annual Reporting**

- a. Describe the program of surveys, car and bike parking counts, driveway counts, and other reporting documents that will be used to track, assess, and report on the implementation of the entire Mobility Management program.
  - i. Annual Travel Surveys
  - ii. Biennial counts of car and bike parking occupancy and driveway ins/outs
  - iii. Status update of Mobility Management programs & services