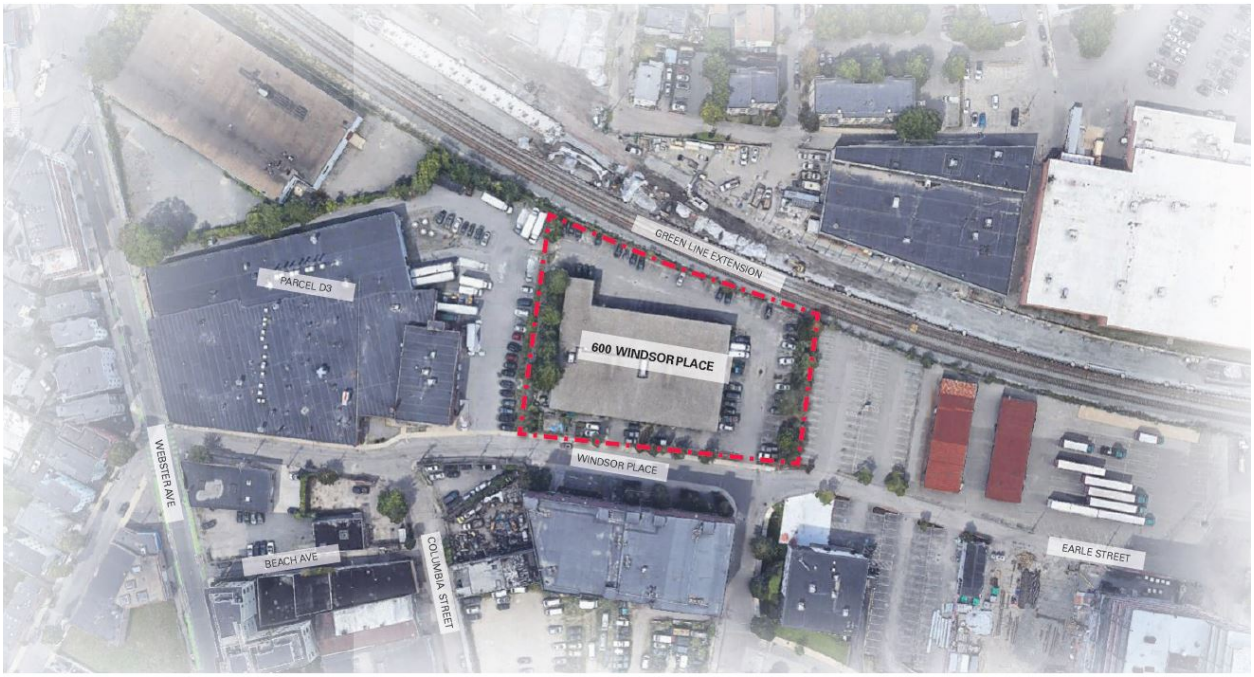
Master Plan Special Permit Application

600 Windsor Place

Somerville, Massachusetts

November 19, 2021



SUBMITTED TO

City of Somerville
93 Highland Avenue
Somerville, MA 02143
Attn: Director of Planning

SUBMITTED BY

US RELP 600 Windsor Owner LLC
31 Union Square, Somerville, MA 02143

PRODUCED BY

US RELP 600 Windsor Owner LLC
Spagnolo Gisness & Associates, Inc.
Howard Stein Hudson
dbHMS
DLA Piper

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CITY OF SOMERVILLE

Office of Strategic Planning & Community Development

City Clerk Stamp

MASTER PLAN SPECIAL PERMIT (MPSP) APPLICATION • COVER SHEET

In accordance with Article 15 of the Somerville Zoning Ordinance, the undersigned submits the following Master Plan Special Permit application for review.

Property Address: 600 Windsor Place, Somerville, MA		
Zoning District: BY Sub-Area	Ward: 2	MBL: 96/A/39
Applicant: US RELP 600 WINDSOR OWNER LLC		
Address: 31 Union Square, Somerville, MA 02143		
Phone: 617-804-1000	Email: greg@discoverUSQ.com	
Property Owner: Same As Applicant		
Address: Same As Applicant		
Phone: Same As Applicant	Email: Same As Applicant	
Agent: n/a		
Phone:	Email:	

As the **Applicant**, I make the following representations:

1. I understand that a master plan special permit application is not complete until all necessary information has been submitted and all fees have been paid and that an incomplete application will not be reviewed, will not be publicly noticed, and will not be scheduled for a public hearing.
2. The information supplied on and with this application form is accurate to the best of my knowledge.
3. I certify that the agent listed on this application form is authorized to represent me before City staff and review boards as it relates to the development of this property.

Signature: _____

As the **Owner**, I make the following representations:

1. I certify that I am the owner of the property identified on this application form.
2. I certify that the applicant named on this application form is authorized to apply for a master plan special permit for the property identified and for the purposes indicated by the submitted documentation.
3. I certify that the agent listed on this application form is authorized to represent me before City staff and review boards as it relates to the development of this property.
4. I permit City staff to conduct site visits on my property.
5. If the ownership of this property changes before the review boards have acted on this application, I will provide updated information and new copies of this form.

Signature: _____

CITY OF SOMERVILLE USE ONLY

	MPSP#:
	Full Fee:

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1 Applicant Information

1.1 Applicant Information

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2 Project Description

2.1 Proposal Introduction

The proposed redevelopment of 600 Windsor Place includes three primary components – a Thoroughfare Lot, a Building Lot and a Civic Space Lot. These lots are organized on the site to respond to the existing and future context, and establish a consistent public realm to further strengthen the urban fabric being established in the Boynton Yards neighborhood. A commercial building is proposed to further transform Boynton Yards into the commercial development cluster envisioned in *SomerVision*. The Project is proposed to include the following –

- Approximately 380,00 SF of development for commercial uses, including life science uses
- A publicly accessible Civic Space of up to approximately 11,000 SF (representing up to 20% of the net block area)
- Approximately 38,000 SF dedicated to support Arts + Creative Enterprise uses, further supporting the local creative economy
- 200 sub-grade vehicular parking spaces, and 131 bicycle parking spaces. Through the master planning process, the Project parking was reduced from 350 spaces to 200 spaces in order to support Somerville's mobility goals for the Boynton Yards district.
- A Thoroughfare Lot to provide parking and loading access to the site, consistent with the Boynton Yards urban design framework
- A building that will be designed to achieve LEED Platinum

2.2 Existing Conditions and Context Analysis

Existing Conditions

The approximately 1.36-acre site is bound by the Massachusetts Bay Transportation Authority (MBTA) rail lines to the north, Windsor Place (a public way) to the south, 54 Webster Street to the west, and an approximately 75 space surface parking lot to the east. Industrial in character, the site currently accommodates a single level concrete block structure which is home to Green Cab and Yellow Cab of Somerville. The existing structure also supports Green City Growers, a company focused on urban agriculture. The portions of the site facing north and east support surface parking, with little to no landscape elements or pervious surfaces. The frontage along Windsor Place consists of a minimal concrete sidewalk with two curb cuts providing access to surface parking lots (adjacent to the public sidewalk). The primary façade, also facing Windsor Place, contains two large garage door openings, but otherwise is primarily opaque. The exception is along the portion of the building that accommodates Green City Growers, where plantings and "urban farming" elements sit between the sidewalk and the building façade. In its current state, the public realm along Windsor Place prioritizes vehicular access and presents an unwelcoming pedestrian experience. *(See Figures 2.4-2.5 for site context)*

600 Windsor Place is located in Somerville's Boynton Yards area, which is at the edge of the greater Union Square neighborhood. Boynton Yards is currently home to several industrial uses,

underutilized sites and three-family homes, but also represents an emerging district within the City, and an area of current and proposed development primarily focused on research, science and technology. This development catalyst is largely related to the arrival of the new MBTA Union Square Green Line station which will facilitate connections throughout the Greater Boston region. Boynton Yards was also targeted as a "transform area" by the City of Somerville as part of the SomerVision 2030 planning effort, focused on revitalizing the neighborhood through transit-oriented development, economic stimulus and open space contributions, an emphasis that has been reinforced further with the adoption of SomerVision 2040.

Context Analysis

The Project site is located within a short walk from the to-be-opened Union Square MBTA Union Square Green Line station, and is also in close proximity to several MBTA bus lines, offering a variety of transit options to support travel to and from the site. In a larger context, the Project site sits between two thriving neighborhood centers – Somerville's Union Square to the north, and Cambridge's Inman Square to the south. Both neighborhoods offer vibrant and unique local environments, supporting restaurants, cafes, galleries and other retail establishments that are reflective of the local culture. More immediate to the site are two future large scale urban developments, the Union Square master plan development being undertaken by US2 to the west and north, and the Boynton Yards master plan development being undertaken by DLJ to the east. These developments will offer a new context focused on street activation, open space and commercial and residential uses. 600 Windsor Place is also in close proximity to several of Somerville's open spaces, varying in size and character. While the existing Boynton Yards district is lacking in publicly accessible open space, the Project will be informed by the greater area's existing network of open spaces and those contemplated within the neighborhood's recently approved developments. *(See Figure's 2.1-2.3 for district context)*

2.3 Proposal Concept, Vision, Objectives, and Character

Located in Somerville's Boynton Yards neighborhood, the redevelopment of 600 Windsor Place represents an opportunity to contribute to the fulfillment of the City's vision for the district as a vibrant, mixed-use environment. Influenced by SomerVision 2030, the Union Square Neighborhood Plan, and the Boynton Yards Urban Design Framework, the proposed Project offers a vision to support commercial development focused on research, science and technology, while also serving to strengthen the neighborhood's public realm and street hierarchy. Aligned with the City's planning principles, the proposed uses will serve to contribute to the economic revitalization of the Union Square and Boynton Yards neighborhoods, while also strengthening Somerville's emerging life sciences, technology, office and innovation cluster.

As a transit-oriented development, the proposed Project will benefit from the opening of the new MBTA Union Square Green Line station, which is in close proximity and will offer a strong connection to many other Somerville neighborhoods to the north, and to Cambridge, Boston, and beyond to the south. With that in mind, special attention will be paid to establishing a vibrant urban fabric that focuses on strengthening the pedestrian procession between the MBTA Union Square Green Line station and the proposed Project. Additionally, the site's location also presents an opportunity to serve as a link between two recently approved large scale urban developments,

specifically the Union Square master plan development to the west and the Boynton Yards master plan development to the east. The proposed Project aims to create a unified public realm, focused on prioritizing pedestrians and bicyclists, to establish the urban language that will continue to define the Boynton Yards neighborhood.

Grounded in the City's planning efforts over the past two decades, the proposed Project is centered on the following planning principles:

Connectivity

The proposed Project will focus on pedestrian and multi-modal connections, and the creation of a public realm which strengthens the site's relationship to the new MBTA Union Square Green Line station. The proposed public realm will prioritize accessibility, enhance the pedestrian experience and offer an inclusive environment for Somerville residents. Additionally, in response to community interest, the Master Plan as submitted does not preclude the extension of the community path along the north property of 600 Windsor, parallel to the MBTA right-of-way.

Open Space

A generous, publicly accessible Civic Space will be included as part of the Project which will serve as an outdoor amenity to the community in the context of the greater network of neighborhood open spaces. The mission of the Civic Space is to provide an inclusive and engaging environment to offer flexible programming, support community gathering, add public open space and landscaping, and strengthen neighborhood connections.

Sustainability

Both the proposed Civic Space and Building will include elements which promote sustainability, committing to LEED Platinum and other standards that focus on energy reduction. Beyond these thresholds, the Project will aim to optimize energy performance, provide significant carbon reductions, and employ resiliency solutions that are aligned with the City's goals to be carbon neutral by 2050.

Arts + Creative Uses

The Project will incorporate approximately 38,000 SF of Arts + Creative Enterprise uses, further strengthening Somerville's thriving creative culture, centered on art and innovation.

Employment + Job Creation

The proposed Project will support over 1,100 new, permanent on-site jobs which support the science and technology sectors, as well as 900 temporary construction jobs serving various building trades. Additionally, the Project will contribute approximately $900,000 to the City's Jobs Creation and Retention Trust.

Economic Benefits

The proposed Project will generate approximately $1,700,000 annually in commercial real estate which will provide more resources for City services and shift the tax burden away from residential tax payers, a stated goal in SomerVision. Additionally, an estimated $3,700,000 will contributed to Somerville's Affordable Housing Trust and an estimated $15,500,000 in public realm

contributions, $900,000 in mobility contributions and an additional $1,400,000 in community contributions will also be provided by the proposed Project.

Proposed Public Realm at Windsor Place

As part of the proposed Project, the street frontage along Windsor Place will be improved to offer a pedestrian friendly experience which connects Columbia Street to the west with Archibald Query Way (future) to the east. This streetscape, which will include bicycle infrastructure, a generous sidewalk, and a porous relationship to the site's Civic Space, will prioritize pedestrian and bicycle travel between the neighborhood's new MBTA Green Line station and the heart of the Boynton Yards district.

The future street section assumes two lanes of vehicular travel in concert with protected or separated bicycle lanes on each side of Windsor Place and the details of the section will be further coordinated with the City during Design Review. The pedestrian zone assumes a minimum 2' edge zone, 6' frontage zone, 6' walkway and 2' furnishing zone, and will connect directly to the site's Civic Space and primary retail frontage in support of the high volume of pedestrian activity forecasted along this critical portion of the street. The pedestrian zone and bicycle infrastructure will coordinate with on-street parking and/or vehicular drop-off within the Project frontage that will support shorter-term retail and business patrons or visitors and will be further defined during Design Review. To the east of the site, the vehicular and bicycle lanes will connect to Windsor Street in a way which discourages high speed vehicular and bicycle entry to Archibald Query Way, which is envisioned by the City as the neighborhood's primary pedestrian "spine". This intersection also facilitates the connection to the Project's Thoroughfare, which is located along the eastern edge of the site, consistent with the expectation of the adopted Boynton Yards Urban Design Framework. *(See Figure 2.6)*

2.4 Proposed Thoroughfare

As required by and identified in the City of Somerville's adopted Boynton Yards Urban Design Framework, the Project's proposed Thoroughfare Lot is oriented to the site's eastern edge. (The Thoroughfare is located in the portion of the site identified as a required thoroughfare alignment in the Somerville Zoning Ordinance (see Map 8.3.12(b)) and in the Boynton Yards Urban Design Framework.) The planned Thoroughfare will conform with the City's "Alley" Thoroughfare typology. The alley will create a traditional 4-way intersection with Windsor Place, Archibald Query Way (future) and Windsor Street, prioritizing pedestrian and bicycle safety in conjunction with aligned vehicular movements. The alley will consolidate primary vehicular access to the building for both parking and service. This single-entry point facilitates the removal of one of the site's existing curb cuts to the west along Windsor Place, reducing potential pedestrian and vehicular conflict, and expanding the public realm to allow for a more pedestrian friendly experience along Windsor Place. *(See Proposed Parcel Plan provided as Figure 2.7)*.

2.5 Proposed Building

600 Windsor

Totaling approximately 43,930 SF of land area, the proposed Building Lot is located to the north of the Civic Space Lot and to the west of the Thoroughfare Lot, and is adjacent to the MBTA commuter rail line to the north. Aligned with the City's vision for the evolution of the Boynton Yards district, and to support the emerging life sciences and innovation cluster in the City of Somerville, the proposed building is envisioned for commercial use, specifically focused on life sciences, research and development, technology and innovation. At 12 levels (approximately 185' in height), the proposed building is intended to accommodate approximately 380,000 SF of commercial use and will be designed in accordance with the "Lab Building" typology as defined by the City's Zoning requirements. Approximately 38,000 SF will be designated to support Arts and Creative Enterprise Uses (representing 10% of the building's total commercial area in compliance with the Zoning Ordinance).

At the ground level, the building's primary entrance is oriented toward the Civic Space, and is flanked by retail and other active uses intended to activate the plaza. Provided the building program, 131 bicycle parking spaces will be provided on site and associated amenities including showers, and lockers will also be provided at the ground level to promote cycling as an alternate transportation mode. 200 sub-grade parking spaces will be located beneath the building with an entry from the adjacent Thoroughfare, preserving the Civic Space for pedestrian use. Loading and service access will also occur from the Thoroughfare, and the building's critical infrastructure spaces will be located to the rear of the site facing the rail line. *(See Figure's 2.8-9)*

The upper-level floor plates will be designed to dimensional metrics critical for life sciences uses (and in compliance with the "Lab Building" typology), and the specific massing and façade articulation will be developed during the future Site Plan Review process. With the specific design to be established after the Master Plan phase, the building is generally envisioned to reflect an innovative and unique architectural expression which celebrates both its forward-looking mission as a center for research and innovation, while acknowledging the site's rich industrial heritage. The building will also achieve LEED Platinum certifiable status, and sustainable strategies are envisioned to be implemented into the building's architectural expression and façade development to communicate the Project's commitment to carbon reduction.

Table 2.1 Building 1 Summary Table

Building Program Summary		Area	Levels	Typical Level
Commercial Lab/Office/Retail		323,000 SF		
Arts and Creative	10%	38,000 SF		
Community Center	5%	19,000 SF		
Commercial GSF		380,000 SF	12	31,667 SF

The Project's program results in 19,000 SF of Community Center space, the lesser of 5% of commercial floor area and 20,000 SF, and is at least 10,000 SF. Alternatively, as suggested by the

Union Square Neighborhood Council, the applicant is willing to coordinate with the City, community, and adjacent land owners to understand how a contribution towards a district-wide Community Center outside the development site, might better serve the neighborhood.

2.6 Proposed Civic Space

The Project's proposed Civic Space will be designed up to approximately 11,000 SF (representing up to 20% of the total site area net of thoroughfare areas) and will be designed to comply with the City's "Central Plaza" Civic Space typology. A Civic Space Study was developed to inform this proposal and is included as *Appendix C*. The Civic Space's primary frontage will be located along Windsor Place, and increase the separation of the building from the public right of way. The plaza will play a critical role in expanding the public realm along Windsor Place and will be designed to respond to the context of the Civic Spaces associated with the D3 Block of the approved Union Square master plan development to the west, as well as the Civic Spaces proposed as part of the approved Boynton Yards master plan development to the east. The design of the plaza will focus on providing a consistent and pedestrian friendly experience between the MBTA station and the Boynton Yards district, as well as contributing to an active environment to be enjoyed by the greater community.

Sitting across from the low rise 561 Windsor Street building, the plaza is oriented to the south which will allow it to receive ample sunlight during the desired hours of use. Shadows Studies have been provided as *Appendix A*. The northern edge of the plaza will be activated by the building's retail uses, which are envisioned to have porous edge conditions to support outdoor seating opportunities. Internal to the plaza, planting zones, outdoor seating elements, lighting features, public art and other unique design features are intended to establish a vibrant and active space in the heart of Boynton Yards. The plaza is envisioned to have a mix of landscape and hardscape elements, in compliance with the Design Guidelines associated with the "Central Plaza" typology, which will offer opportunities for flexible programming. During the Site Plan Review process, the design team will work in partnership with the community and Public Space and Urban Forestry Division to arrive at a program mix that contributes to and complements the open space ambitions of the district.

2.7 Transportation

Howard Stein Hudson (HSH) has prepared a Mobility Management Plan (MMP) and Transportation Impact Study (TIS) for the proposed Master Planned 600 Windsor Place redevelopment. The TIS conforms with the City of Somerville Mobility Division Transportation Impact Study Guidelines and is included in *Appendix B*. The study analyzes existing conditions within the Project study area, as well as conditions forecast to be in place under the seven-year planning horizon of 2028.

The Project will replace the existing building and approximately 75 space parking lot that is primarily used for taxicab services and houses an urban agricultural company and a small metal fabrication shop.

The Project will construct a 380,000 gross square foot (GSF) building containing laboratory/life science uses, office uses, arts and creative space, a community center use, and ground-floor retail.

The Project proposes parking for vehicle and bicycles. 200 spaces are proposed for vehicles in a sub-grade garage. These 200 parking spaces will support the commercial development at a ratio of 0.53 spaces per 1,000 SF, which is at the low end of the range of parking ratios for comparable projects in the region. Bicycle parking will be accommodated through 103 sheltered and secured bicycle parking spaces within the building and an additional 28 short-term spaces outside the building.

The Project is situated to take advantage of the numerous public transportation opportunities in the area including multiple bus lines and extension of the Massachusetts Bay Transportation Authority (MBTA) Green Line to Union Square Station. It is expected that due to the availability of public transportation and the walkability of the surrounding neighborhood, the Project will be well-served by non-vehicular modes of transportation.

The pedestrian entrance to the lobby will be located on Windsor Place. The Project will also include a Thoroughfare that is consistent with the Somerville Zoning Ordinance (see Map 8.3.12(b)) and the Boynton Yards Urban Design Framework, which will create a north-south access route from Windsor Place to the north.

Vehicular site access is proposed from a curb cut on the proposed thoroughfare that will be constructed to align the intersection opposite Windsor Street. There will be a two-way ramp to the underground garage and a separate loading/service area, both of which vehicles will access from the thoroughfare. This configuration consolidates the two existing curb cuts into one curb cut reducing the number of intersections between pedestrian and vehicles. *(See Figure 2.9)*

The Proponent is committed to implementing a transportation demand management (TDM) program that supports the City's efforts to reduce dependency on the automobile by encouraging alternatives to driving alone, especially during the peak travel periods. Proposed measures include, but are not limited to, designating an on-site transportation coordinator; secure covered bicycle parking; promotion of travel alternatives; and transit and bike-sharing incentive programs for employees. Additional details are provided in the Mobility Management Plan that has been prepared for the Project.

3 Utility Analysis

This section describes the existing utility infrastructure surrounding the Project Site and the ability of the existing infrastructure to accommodate the Project. General utility requirements of the Project are provided. A detailed infrastructure analysis and utility design will be performed during Design Development.

3.1 Utility Infrastructure Plan

Wastewater

Existing Sewer System

The City of Somerville owns and maintains a 30-inch combined sewer located within a 20-foot-wide sewer easement to the south of Windsor Place. According to record plans, the existing building has a 6-inch sewer service that ties into the combined sewer.

The sewer flow from the existing building is estimated at 1,326 gallons per day (gpd) as summarize in Table 3.1. Sewer generation rates are based on the values provided in 310 CMR 15 (Title V).

Table 3.1 Existing Sanitary Sewer Flows

Building Use	Quantity	Unit Flow Rate (gpd/unit)	Flow (gpd)
Office	4,619 sf	75 gpd/1000 sf	346
Warehouse	49 occupants[1]	20 gpd/person[2]	980
Total Existing Sewer Flow			**1,326 gpd**

The average occupant load for light industrial/warehouse mix is assumed at one occupant per 400 sf. The gross floor area of the existing building is approximately 19,360 sf (19,360/400 = 49 occupants).

20 gpd/person per 310 CMR 15.416(3) for industrial and warehouse with cafeteria

Proposed Sanitary Sewer System

The net estimated maximum daily wastewater flow from the Project is **27,374 gpd**, as summarized in Table 3.2

Table 3.2 Projected Sanitary Sewer Flows

Planned Building Use	Projected Quantity	Unit Flow Rate (gpd/unit)	Anticipated Flow (gpd)
Community Center[1]	380 seats	5 gpd/seat	1,900
Arts and Creative[2]	38,000 sf	75 gpd/1,000 sf	2,850
Office	124,800 sf	75 gpd/1,000 sf	9,360
R&D/Lab	187,200 sf	75 gpd/1,000 sf	14,040
Retail	11,000 sf	50 gpd/1,000 sf	550
Total Proposed Sewer Flow			**28,700**
Existing Sewer Flow			**1,326**
Net Total Sewer Flow[3]			**27,374**

1. *Assume 50 sf per seat (19,050 sf/(50 sf/seat)=380 seats*
2. *Title V does not provide sewage flow design criteria for Arts and Creative Space. The unit flow rate for office is used as a conservative estimate.*
3. *The Net Total is conservatively calculated before any water conservation measures associated with the sustainability program for the Project are considered. These flow totals will be revisited during Design Review once the sustainability details are further understood.*

A new sanitary sewer service will be provided for the proposed building and will tie into the 30-inch combined sewer off Windsor Place. The 30-inch combined sewer appears to have sufficient capacity to accommodate the Project. The full flow capacity of the combined sewer is approximately 12.72 cubic feet per second (cfs) or 8.22 million gallons per day (MGD). The projected maximum daily sanitary sewer flow for the development is 0.04 MGD.

The Project will be subject to the City's inflow/infiltration (I/I) mitigation program. The Proponent will work with the Engineering Department during the detailed design development phase to determine the appropriate fee to assist in funding I/I mitigation projects within the City.

Water System

Existing Water Service

The City of Somerville owns two 16-inch water mains in Windsor Place. The 16-inch water mains combine at either end of Windsor Place. The singular 16-inch main ties into a 20-inch water main in Webster Street and is served by Section 4 of the Massachusetts Water Resources Authority's Eastern Spot Pond transmission main.

Proposed Water Service

The average maximum daily water demand is estimated at 32,000 gpd based on the Project's estimated wastewater generation plus a factor to account for consumption, system losses and other potential usages.

Domestic water and fire protection services are anticipated to connect to the 16-inch water main in Windsor Place. The water supply systems servicing the buildings will be gated to minimize public hazard or inconvenience in the event of a water main break. Backflow preventers will be provided where necessary, such as on the fire protection service, to protect the potable water supply.

It is anticipated that the existing infrastructure can support the development. A hydrant flow test will be performed during the Design Development phase to confirm available flow and pressure. If flows and/or pressures are found to be insufficient, it may be necessary to include a fire pump for the development. Although not anticipated at this time, there is potential to upgrade the water main in Windsor Place by constructing a new main a short distance to the west and tie into the water main in Webster Street if this proved advantageous during more detailed design.

Electrical Service

Eversource owns and maintains the electrical transmission system in the vicinity of the Project. Initial discussions with Eversource personnel indicate they can service the Project, are aware of developments in the area, and are planning for substantial load growth in the next several years. The Proponent will work with Eversource to determine how to feed the Project Site and locate transformers and other electrical equipment, during Design Development of the Project.

Telecommunication Systems

Verizon provides telephone services in the Project area. Services will be coordinated during Design Development.

Verizon and Comcast provide cable tv and internet services in the Project area. The Project Team will work with the service providers to determine the size and source for the proposed building.

Gas Systems

Eversource provides natural gas service in the Project area. They own and maintain a gas main in Windsor Place. Services will be coordinated during Design Development.

3.2 Storm Water Management and Green Infrastructure Plan

Existing Storm Drainage System

The existing property is largely impervious surfaces including paving and building. Runoff from the paved parking areas to the north and east of the existing building is captured by catch basins on site. The catch basins are piped to the 42-inch storm drain located in Windsor Place. No pretreatment of the stormwater is provided outside of the minimal sediment removal provided by the catch basins. It appears that rooftop runoff is collected by roof drains and piped to the 42-inch storm drain.

Runoff in front of the building drains overland to the roadway where it is picked up by catch basins in the road. Runoff westerly of the existing building drains overland to the abutting property.

Proposed Storm Drainage System

The Project will increase the area of pervious surfaces on the property and will promote on site infiltration through new open space areas, landscape areas and areas of pervious pavement. The Project's stormwater management system will consist of green infrastructure including permeable pavers and subsurface infiltration systems. It is anticipated that the development will result in the reduction of stormwater runoff such that the 10-year peak flow in proposed conditions will be at or less than the 2-year peak flow in existing conditions.

The Project will substantially improve the stormwater quality of the runoff leaving the site. Water quality will be improved by utilizing deep-sump catch basins, proprietary stormwater treatment units, and stormwater recharge. A long-term operation and maintenance plan will be developed to ensure the continued effectiveness of the stormwater management system.

4 Sustainability and Resiliency

4.1 Sustainability Approach

The City of Somerville has set a goal to become carbon neutral by 2050. In support of this ambitious goal, the Somerville Zoning Ordinance requires that all Master Plans must include a Climate Change Vulnerability Assessment and a carbon neutral pathway assessment, while additionally meeting the Sustainable Development Standards. Per the December 12, 2019 edition of the Zoning Ordinance, all new building construction over 50,000 GSF must be LEED Platinum certifiable.

Per the requirements, 600 Windsor will pursue the LEEDv4 BD+C: Core and Shell rating system with a target of Platinum level of certification. Additionally, the building will be required to comply with the new State Energy Code that went into effect on January 1st, 2020 - IECC 2018/ASHRAE 90.1-2016 with Massachusetts amendments, including the mandatory envelope backstop requirements.

The Project will be designed to reduce carbon emissions through efficient design, conscientious construction, and reductions in energy, water, and waste during the operation of the building. The following paragraphs describe the overall approach to sustainable design, construction, and operation for the 600 Windsor.

Integrative Process

During SD and the early part of DD, the project team will use cross-discipline design and decision making to identify and use opportunities to achieve synergies across disciplines and building systems. The project team will meet regularly to ensure the individual contributing members and stakeholders involved are collaborating and communicating. As the design progresses, there will be multiple sustainable design-focused workshops to ensure that the project team establishes shared sustainable design and energy efficiency goals for the project and to ensure that the entire project team is engaged throughout the design and construction process. As part of the commissioning process, an Owner's Project Requirements document will be put together to guide the design and construction team. As part of the GHG processes and in early phase energy modeling, preliminary energy models will be developed to test potential strategies associated with the following opportunities: site condition, massing and orientation, basic envelope orientation, lighting levels, thermal comfort ranges, and plug and process load needs. A preliminary water budget analysis will be completed for both indoor and outdoor water demand, and process water demand and supply sources will be investigated. The results of these analyses will be incorporated into the design of the project where practical and economical.

Location and Transportation

The Project site is being designed as a pedestrian and bike-friendly streetscape experience in order to improve the walkability of the neighborhood for nearby residents, tenants, and public transportation commuters and to create a dynamic street level environment for the project and surrounding neighborhood. The location of the Project was chosen to maximize the walkability of the site. The Project is located within a quarter mile of the CT2, 85, 86, and 87 MBTA bus lines.

Additionally, the Project will be directly adjacent to the Green Line Extension's Union Square stop, which will be operational by Q1 2022. The development is also located within a half mile of a dense residential area and a number of amenities. Public bike racks will be provided for visitors, residents, and employees for both long- and short-term storage, while a bike-share station will also be provided on-site. In accordance with the approved Mobility Management Plan for the Project, off-street vehicular parking has been planned to meet the mobility goals of the Boynton Yards Overlay district with the proposed 200 parking spaces falling within the available 1,500 parking space limit for the area. The 200 parking spaces planned will support up to 380,000 SF of commercial development, representing a parking ratio of 0.53 spaces per 1,000 SF. This ratio is at the low end of the range of parking ratios for comparable projects in the region. From among these, and to promote the use of electric vehicles, EV charging stations will be provided for 15% of the spaces on day one of operations with the balance of spaces (85%) equipped to be EV-ready; available to address the potential of increasing demand.

Sustainable Sites

At the start of the Building design process, the project team will complete and document a site assessment that includes topography, hydrology, climate, vegetation, soils, human use, human health effects to maximize the use of the site for the future occupants and neighborhood residents. Meeting Somerville's Zoning requirements, the Project will include a green roof or photovoltaics for 100 percent of the roof area not occupied by mechanical equipment or the required outdoor amenity spaces. The project team will investigate the reuse of stormwater on-site for irrigation or other purposes. In addition, the project team plans to provide new and enhanced open space and green space that link to the overall open space network for the district. Landscaped spaces and pedestrian friendly streetscape improvements will be included. Parking dedicated for the project will be subgrade and will not contribute to the urban heat island effect. The project site is classified under Lighting Zone 3, and the project plans to meet backlight, uplight, and glare ratings, as well as light trespass requirements, by complying with the LEED v4 BUG Rating method. As a core-and shell building, future end users will also be encouraged to make sustainable choices for their operations and tenant fit-out. A Tenant Design and Construction Guideline that includes a description of the sustainable design and construction features incorporated in the core and shell project and the project's sustainability goals and objectives (including those for tenant spaces) will be provided to all tenants.

Water Efficiency

The project team is investigating multiple strategies for reduction of potable water. Outdoor landscape potable water use will be reduced by at least 30% from the calculated baseline, achieved through plant species selection and irrigation system efficiency (drip irrigation and smart controllers). The use of stormwater for irrigation will be investigated together with the potential of removing irrigation altogether. The Project will reduce indoor potable water use through low flush and flow fixtures, with a goal of 30-40% reduction from fixtures alone. The design team will investigate additional potential indoor potable water use reductions through use of stormwater for toilet flushing. All fixtures except the kitchen and lavatory faucets will be WaterSense certified, and all appliances will be ENERGY STAR. The Project will include permanent water meters that measure the total potable water use for the building and the grounds, as well as include water sub-meters for at least two end uses.

Energy and Atmosphere

In order to reduce energy usage for operational savings and carbon emissions reductions, the project design will focus on high efficiency building systems and a high-performance building envelope. For example, the potential use of the Konvekta system will double the energy recovery possible. No CFC-based refrigerants will be utilized for the Project. In order to measure and track building energy usage, building-level energy meters and submeters that can be aggregated to provide building-level data representing total building energy consumption (electricity and natural gas) will be installed. Preliminary conceptual energy modeling will be completed for the building in the schematic design phase as part of the integrated design process, and the model will continue to be updated throughout the design process and finalized with an as-built energy model.

The most sustainable building is not only designed to be sustainable, but additionally constructed and operated sustainably. To ensure that the building operates as designed, an independent commissioning authority will be contracted to perform on-board design reviews, verify operator training, and review building operations ten months after occupancy in accordance with ASHRAE Guideline 0–2005 and ASHRAE Guideline 1.1–2007. Additionally, the project will develop a monitoring-based commissioning plan that includes monitoring-based procedures and identifies points to be measured and evaluated to assess performance of energy- and water-consuming systems as the building progresses into the operational phase. A Building Enclosure Commissioning Authority will be engaged to compete the commissioning process activities for the building's thermal envelope.

As part of the larger effort to reduce the carbon impact of the Project the team will review the opportunity for renewables on-site and the possibility of the purchase of RECs and carbon offsets, directly addressing the City of Somerville's carbon neutral initiative.

Materials and Resources

The project team will specify materials and products that are environmentally responsible and are transparent regarding the harvest and/or extraction of raw materials and the manufacturing processes. The project team will endeavor to specify materials and products with compliant environmental and health product declarations to reduce the overall environmental impact of the project and to create a healthy indoor environment for all occupants. Waste management will be addressed both during construction and post-occupancy.

The Construction Manager will implement a construction waste management plan to divert construction waste and demolition debris from landfills. During property operations and occupancy, a recycling plan will be implemented and collected recyclables will be accommodated in a central location. A contracted waste management company will pick up the collected recyclables on a regular basis.

Indoor Environmental Quality

In order to provide the building occupants with a healthy indoor environment, the project team will focus on the following aspects of indoor air quality: ventilation, filtration, CO_2 monitoring, low-emitting materials, and daylight. The mechanical systems are designed to provide the required ventilation throughout the building, meeting ASRHAE 62.1-2010 requirements. Direct

outdoor airflow measurement devices capable of measuring the minimum outdoor air intake flow will be provided for all OA systems. All ventilation systems will be provided with MERV 13 filters. Carbon dioxide will be monitored in all densely occupied spaces. Smoking will be prohibited anywhere in the building and within 25 feet of main entries, operable windows, and air intakes. An Indoor Air Quality Management plan will be implemented during the construction phase. Interior products, such as flooring, paints and coatings, adhesives and sealants, and insulation, will be specified to be low VOC and in compliance with the CDPH Standard Method v1.1-2010 emissions testing. The envelope design for the building will include vision glazing with ample access to daylight and views for the occupants.

Innovation and Regional Priority

The project team will explore innovative approaches to design, construction, operations, and maintenance, including low mercury containing light fixtures, integrative analysis of building materials, and gender-neutral restrooms. Regional priority measures will also be documented.

4.2 Climate Change Preparedness and Resiliency

Climate change is expected to result in rising sea levels, more frequent storms, more extreme weather events, and increasing temperatures. As part of the initial Master Plan analysis and through a review of Somerville's Climate Change Vulnerability Assessment, the project team has identified the project's threats and measures the project will investigate more fully during design for a more resilient design. The project team will provide the Sustainable and Resilient Building Questionnaire as part of the Design Review process.

Sea Level Rise

According to Somerville Climate Forward, which is Somerville's 2017 climate change plan, the 600 Windsor Place project site will not be vulnerable to coastal flooding from sea level rise based on the City's projections for 2030 through 2070.

Precipitation

As precipitation events become more frequent and more intense, precipitation-based flooding will increase in areas like 600 Windsor Place where the existing drainage system may not have enough capacity and much of the area is covered with impervious surfaces. The project site is vulnerable to increasing precipitation-based flooding during the 100-year, 24-hour Design Storm with 1-year storm surge; during the 10-year, 24-hour Design Storm with 1-year storm surge; and during the 100-year, 24-hour Design Storm with 100-year storm surge.

The project team is investigating an increase in green open space and reducing impervious surfaces to promote infiltration of stormwater runoff as well as the capture and reuse of stormwater for other purposes. Essential mechanical systems and equipment will be placed above the first-floor grade or be sufficiently protected to reduce the risk associated with flooding in the event of an extreme weather event.

The project team also understands much planning has been undertaken by the City of Somerville through the Public Realm Implementation Strategy for Boynton Yards (PRSIBY) work and

anticipates contributing to planned flood mitigation efforts and being a part of the stormwater management solution for the larger neighborhood.

Temperature Rise / Heat Wave

The Project site lies within an area of high outdoor heat exposure due to a large amount of impervious surface and a lack of tree canopy and green open space throughout the area. Consequently, the project may experience negative impacts from the urban heat island effect, posing a threat to the functionality of utility systems and building performance, as well as to public health, particularly as climate change conditions become more severe.

To protect the functionality of the buildings and the safety of the public, the Project site will incorporate design features that will keep occupants and visitors safe and comfortable during extreme heat events. From the building perspective, the project team will investigate the possibility of utilizing battery backup or the emergency generator to provide power for limited cooling during heat wave (non-fire) power loss events. Envelope air sealing and an insulated envelope will help slow down temperature swings in the building. To safeguard and support the public use of new outdoor areas, the new plaza will introduce green infrastructure measures to reduce the urban heat island effect. It is anticipated that approximately 14,000 SF of new urban tree canopy will be introduced on site. Parallel efforts will be made to reduce the site's impervious area relative to its existing conditions. By promoting infiltration through the strategic selection of new, light-colored materials and incorporating surface plantings, the Project will further position itself to combat the potential increase in the amount of high-heat days.

4.3 Path to Carbon Neutrality

Environmental impacts of buildings go far beyond the immediate concerns about the occupants and visitors; buildings affect communities far beyond the project boundaries through the impacts of imported energy, the embodied pollution in the materials used in construction, the negative environmental impact of the modes of transportation required to access the project site, and the embodied pollution of the ongoing repair, replacement, and maintenance of the building and its systems.

The project team will combine energy modeling information with the latest in embodied carbon modeling tools and transportation assessments to evaluate the carbon impact of the 600 Windsor Master Plan. As a singular building, the team will provide a preliminary block carbon analysis to determine the overall embodied and operational carbon for the project in comparison to a baseline building. Strategies for reducing carbon for both embodied and operational will be evaluated in a carbon charrette-style meeting. The life cycle assessment (LCA) model for the design building will be updated with data gathered from the design and construction team at critical points throughout the design and construction process, and design optimizations and material alternatives for carbon reduction strategies will be evaluated and included in project design documents.

This first step towards a carbon neutral building is to look at operational carbon and the energy usage of the building. The project team will investigate both minimizing the energy usage of the building and the possibility of electrification. To reduce energy usage, the team will prioritize a

high-performance envelope paired with a carefully considered window-to-wall ratio. Strategically limiting the total amount of glazing while managing the visual effect of the façade provides an opportunity for the building to be more energy efficient with a façade with less embodied carbon than the typical all glass buildings. High efficiency MEP systems, including specialty exhaust heat recovery, high efficiency chillers, optimized controls, air source heat pumps for domestic hot water, low flow plumbing fixtures, decoupled ventilation and space conditioning, and demand control ventilation, help to reduce energy usage in the building. Reduced lighting power densities and high-performance exterior lighting will additionally reduce building energy usage. To pursue the possibility of electrification, the design team will investigate potential partial and full electrification scenarios, including a heat recovery chiller base for the majority of the load with a small traditional boiler and chiller for load peaks and heat recovery heat pumps and heat recovery chillers augmented by air-source or water-source heat pumps for the load peaks.

Once the operational energy of the building has been minimized, the project team will investigate the potential for on-site renewables to offset the building's operational carbon and bring the building closer to carbon neutrality. Because the proposed building is intended to be dedicated to support life science uses, a considerable amount of equipment will be located at the roof level, not leaving a large area available for renewables. The project team will investigate other opportunities for renewables, such as façade photovoltaics. As the building will not be able to produce the energy required to offset all of the operational energy on site, the team will investigate both the purchase of carbon offsets and the possibility of a power purchase agreement to offset building energy use.

The project team will be mindful in material selection and investigate the use of lower carbon materials to reduce the embodied carbon of the building with a goal of getting closer to total carbon neutrality (both operational and embodied). Structure makes up approximately 40% of the total embodied carbon of a typical building. Electric arc furnace steel and low carbon concrete may be specified to reduce the embodied carbon of the structure. The façade materials will be reviewed through the lens of carbon as well as the façade, as it makes up approximately 9% of the total embodied carbon. Similarly, transportation from the point of manufacture to the project site makes up an additional 5% of the embodied carbon. The team will specify local materials wherever possible but will specifically prioritize local materials for the main sub- and superstructure components, with a target of maximizing materials harvested, extracted, and manufactured within 500 miles. The carbon modeling mentioned above will demonstrate the reduction in embodied carbon the building will achieve.

5 Implementation Overview

5.1 Project Phasing

The Project, including the civic space, building and alley, will be constructed in one phase with construction anticipated to take approximately 24 months. The start of construction will begin after the Master Plan Special Permit, Site Plan Review and Building Permit pre-development phases are completed. Demolition of the existing building and site improvements are anticipated to occur prior to the start of construction or as part of the first phase of construction. Through eventual operations, the Project is expected to support approximately 1,100 employees at full occupancy.

6 Project Benefits

6.1 Transportation Improvements

The Applicant is committed to the City of Somerville's goals for a multi-modal future and increasing mobility and safety for all users. The Applicant will work with the City of Somerville to create a Project that improves the pedestrian environment, encourages transit and bicycle usages, and efficiently serves vehicle trips at the Project Site. The proponent is committed to controlling the percentage of trips made to the Site by motor vehicle at 50% or less, consistent with SomerVision goals for mobility.

The Project will bring all abutting sidewalks and pedestrian ramps to the City of Somerville Standards in accordance with the National Assoiation of City Transportation Officials (NACTO) design guidelines. This will include the reconstruction and widening of sidewalks abutting the Project Site along Windsor Place. Improvements will include improved street lighting where necessary, planting of trees, and the addition of street furniture such as benches around the Site. Specific mitigation contributions include:

Thoroughfare

The Project will construct the thoroughfare as identified in the Boynton Yards Urban Design Framework and be consistent with the overlay district zoning. In addition to removing vehicular access for the Project directly from Windsor Place, the thoroughfare provides a needed pedestrian-scale block structure. This action will serve to reduce the number of curb cuts that currently exist along the frontage and will improve safety and operations at the Windsor Street/Windsor Place/Archibald Query Way intersection.

Windsor Place/Windsor Street Intersection Improvements

The Project will align the thoroughfare to create a traditional four-way intersection with the Windsor Place/Windsor Street/Archibald Query Way intersection. Other intersection improvements include pedestrian crosswalks, installation of ADA-compliant ramps, and conversion to all-way stop control.

Windsor Place Civic Space

A generous, publicly accessible Civic Space will be included as part of the Project which will serve as an outdoor amenity to the community in the context of the greater network of neighborhood open spaces. The mission of the Civic Space is to provide an inclusive and engaging environment to offer flexible programming, support community gathering and strengthen neighborhood connections. The Project will install a real-time transit information screen (TransitScreen) facing the civic space so that it is visible to pedestrians in front of the building,

Windsor Place Bicycle Lane

The project will install a westbound bicycle lane on Windsor Place adjacent to the Project; design will be coordinated with the Somerville Mobility Division during the Site Plan Review. Windsor Place eastbound will be marked as a shared lane for vehicular and bicycle use.

Bluebikes Station

The Project will install a 19-dock Bluebikes bike share station either onsite or at a location to be coordinated with the Somerville Mobility Division.

Transportation Demand Management (TDM)

The Proponent is committed to implementing Mobility Management Plan (MMP) measures to minimize automobile usage and Project-related traffic impacts. The Proponent is prepared to take advantage of good transit access in marketing the Project to future tenants and work with them to implement the MMP measures to encourage the use of non-vehicular modes of travel. A few of the TDM measures to be provided include:

- An on-site transportation coordinator for the tenants
- An annual mobility management education meeting for employees
- Posted mobility management information
- Distributed mobility management information
- Qualified transportation fringe benefits for employees
- A guaranteed ride home program for employees

6.2 Public Benefits[1]

The benefits from the proposed project are significant and advance *SomerVision* goals related to Jobs, Housing, Mobility and Open Spaces as well as supporting other Union Square neighborhood priorities.

Jobs and Workforce Development

- Expansion of the local innovation economy and life sciences cluster
- 1,100 new permanent jobs anticipated
- 900 new construction jobs anticipated
- Approximately $900,000 to the Job Creation & Retention Trust
- Approximately $1,700,000 annually in new Commercial Real Estate Taxes

Open Space and Sustainability

- Up to approximately 11,000 SF of new Civic Space
- Approximately 14,000 SF of new urban tree canopy
- LEED Platinum Lab/Office Building
- Green Score Rated Building Lot

[1] *All values are estimates based on the proposed program and subject to change*

- Approximately $15,500,000 in Public Realm Contributions
- New onsite stormwater management facilities
- Approximately $250,000 in Inflow and Infiltration Mitigation

Housing

- Approximately $3,700,000 to the Affordable Housing Trust

Mobility

- Commitment to SomerVision 2040 non-auto trip goals
- A redefined street section for Windsor Place to expand bicycle and pedestrian infrastructure
- Approximately 131 Bicycle parking spaces to promote bicycle use
- A new on-site BlueBike Bike Share station
- The Project allows for the extension of the community path along the north property of 600 Windsor, parallel to the MBTA right-of-way.
- On-site, real time transit information displays
- Approximately $900,000 in Mobility Contributions
- Mobility management program to promote non-auto uses for project occupants
- Subsidized MBTA Transit passes for employees at up 90% of the pass cost
- Subsidized Bluebikes Bike Share enrollment for future employees
- 200 vehicle parking spaces in a public garage open 24/7/365
- 15% of parking spaces equipped with EV infrastructure on day one of operations. 85% EV-Ready spaces configured for future adaptation.
- 5% of vehicular parking spaces signed and designated for carpools and/or vanpools
- Two dedicated spaces for car-share vehicles

Other Community Support

- Approximately $1,400,000 in Project Contributions toward local priorities
- Approximately 38,000 SF of dedicated Arts & Creative Enterprise Space
- Community center space contribution

7 Zoning Compliance

7.1 Master Plan Standards

8.3 Master Planned Development (MPD)

8.3.6 In-Lieu Payments

a. Master Planned Development
(i.) The Planning Board may permit an in-lieu payment for up to ten percent (10%) of the civic space required in each sub-area by Special Permit in accordance with Section 12.3 Buyouts & Payments.

Not applicable, as the applicant will be developing all Civic Space on-site and is not requesting the right to make an in-lieu payment.

b. Contributing Lots

(i.) The Planning Board may permit an in-lieu payment for up to one hundred percent (100%) of the civic space required in each sub-area by Special Permit in accordance with Section 12.3 Buyouts & Payments.

Not applicable, as the applicant will be developing all Civic Space on-site and is not requesting the right to make an in-lieu payment. See *Figure 2.9b* which identifies the proposed Civic Space location. Refer also to *Appendix C [Civic Space Study]* for analysis related to the existing Civic Spaces within close proximity to the Project Site.

8.3.7 Master Plan Standards

a. Submitted master plans must include a sustainability component that details the following:
(i.) Identification of all master plan scale efforts to mitigate climate change impacts identified in Somerville's Climate Change Vulnerability Assessment in relation to the design, construction, and occupancy or use of all thoroughfares, civic spaces and buildings.

Chapter 4, Section 4.2 addresses site specific impacts identified in Somerville's Climate Change Vulnerability Assessment. These points will be expanded on as part of the Site Plan Review process, at which time the City's Resilient Buildings Questionnaire will be prepared and submitted for review. Please refer to Chapter 4 for the sustainability approach taken for the building.

(ii.) A carbon neutral pathway assessment.

Refer to Section 4.3 of Chapter 4, Sustainability and Resiliency, for a carbon neutral pathway assessment. These points will be expanded on as part of the Site Plan Review process, at which time the City's Resilient Buildings Questionnaire will be prepared

and submitted for review. Please refer to Chapter 4 for the sustainability approach taken for the building.

(iii.) A storm water management and green infrastructure plan.

Please refer to Chapter 3 [Utility Analysis] and Figure 3.3 which depicts the Project's proposed stormwater management and green infrastructure strategies. Proposed stormwater improvements will be developed in accordance with applicable City and State standards and regulations. Design of the on-site Civic Space will also provide green infrastructure strategies to promote on-site infiltration to be developed in detail during Site Plan Review.

b. Submitted master plans must include development phasing commitments and proposed contingencies as a basis of performance bond.

Please refer to Section 5.1 of Chapter 5, Implementation Overview, for a description of project phasing.

8.3.8 Thoroughfares & Civic Spaces

a. Required and recommended thoroughfares and civic spaces are shown on the regulating maps for each sub-area.
(i.) Required thoroughfares and civic spaces are mandatory and necessary to implement the approved plan for each sub-area.

The Project's proposed Thoroughfare is located along the eastern portion of the Project Site as shown in Figure 2.7 [Proposed Site Plan]. The proposed Thoroughfare will form an intersection with Windsor Place to the west, Archibald Query Way to the east, and Windsor Street to the south. The proposed location is in accordance with the location identified as a "Required" Thoroughfare location in the Somerville Zoning Ordinance, on Map 8.3.12(b), and included in the recently adopted Boynton Yards Urban Design Framework.

(ii.) Recommended thoroughfares and civic spaces are ideal, but not mandatory.

This section is not applicable to the Project. There are no recommended Thoroughfares or Civic Spaces identified for the Project Site.

b. Thoroughfares and civic spaces are subject to the provisions of Article 13: Public Realm of this Ordinance.

The proposed Civic Space is intended to comply with the Design Guidelines associated with the "Central Plaza" typology, which will offer opportunities for flexible programming to support community activity. This application is for MPSP approval. As part of the Site Plan Review process, detailed Civic Space plans will be provided to further demonstrate compliance with the requirements of the Zoning Ordinance. During the Site Plan Review process,

the design team will work with the City's Department of Public Spaces and Urban Forestry (PSUF) and the community to determine a program mix to complement and contribute to the larger ambitions of the district. The Civic Space will be based on the tenets of universal design, and will be fully accessible per ADA and MAAB requirements.

c. All thoroughfares and civic spaces must be dedicated to the public in perpetuity by a covenant or other deed restriction.
The Civic Space will be dedicated to the public in perpetuity by a covenant or other deed restriction as required per the zoning code.

d. Civic space created through an easement or decommissioning of an existing thoroughfare or other abutting right-of-way may be counted toward the required amount of civic space
This section is not applicable to the Project, which does not include granting of an easement over or decommissioning of an existing thoroughfare.

8.3.9 Development Standards

a. Sustainable Development

(i.) Lab buildings must be LEED Platinum certifiable.

The proposed Building will comply with this requirement. The Project, a 'Lab Building', will be designed to be LEED Platinum certifiable. During the Site Plan Review process, a LEED scorecard and additional detailed technical information will be provided to highlight the project's pathway to LEED Platinum (and subsequent compliance with this Section of the Zoning Ordinance). Please refer to Chapter 4 for the sustainability approach taken for the building.

(ii.) All other building types must meet the following:

a.) No on-site combustion for HVAC system operation;
This section is not applicable to the Project.

b.) No on-site combustion for cooking equipment, excluding Eating & Drinking Establishment principal uses; and
This section is not applicable to the Project

c.) Be certifiable as:

(i.) Zero Carbon or higher from the International Living Future Institute; or

(ii.) PHIUS+ from the Passive House Institute US.
This section is not applicable to the Project.

(iii.) All new principal building uses must include a green roof, photovoltaic (PV) devices, or both for 100% of the area not occupied by building systems equipment or required outdoor amenity spaces.

The proposed Building is intended to be a Lab Building and include dedicated life science uses, resulting in a considerable amount of equipment located at the roof level. During the Site Plan Review process, detailed plans will be submitted highlighting the implementation of green roof elements and/or PV devices for the remainder of the roof space should it be available.

8.3.10 Parking & Mobility

a. Type

(i.) Unless otherwise specified, motor vehicle parking must be provided as underground structured parking. All other types of parking are prohibited.

The proposed Project includes 200 parking spaces, all of which will be located in a sub-grade parking facility.

b. Parking Maximums

(i.) The maximum number of off-street parking spaces and reserved parking spaces permitted for each sub-area is specified in the provisions for each sub-area.

Within the Boynton Yards Sub-Area, a total of 1,500 off-street parking spaces are available for allocation with up to 300 available to be reserved.

(ii.) The maximum number of off-street parking spaces and reserved parking spaces permitted in each sub-area is reduced by the number of off-street parking spaces and reserved parking spaces provided on any lot in each sub-area.

In accordance with the approved Mobility Management Plan for the Project, off-street vehicular parking has been planned to meet the mobility goals of the Boynton Yards Overlay district with the proposed 200 parking spaces falling within the available 1,500 parking space limit for the area. Similarly, the number of reserved spaces is limited to 15 for the Project and will not exceed the 300 reserved space limit.

c. Parking Relief

(i.) The maximum number of off-street parking spaces in each sub-area may be exceeded by Special Permit.

Not applicable as the proposed Project is not exceeding the maximum number of off-street parking spaces.

d. Parking Access

(i.) Access for motor vehicles, loading, and service to new block and individual lots must be from an alley. The configuration of alleys internal to a block must confirm to Section 10.1.5 Alley Access.

The Project's proposed Thoroughfare is intended to comply with the "Alley" typology. Located to the east of the Site, it will provide access for the sub-grade parking

structure as well as the building's primary loading area. See Figure 2.7 [Proposed Site Plan] for Thoroughfare location.

8.3.12 Boynton Yards (BY) Sub-Area

d. Thoroughfare Network

(i.) Required and recommended thoroughfares are shown on Map 8.3.12(b).

The Project's proposed Thoroughfare is located to the east of the Project Site (intersecting with Windsor Place to the west, Archibald Query Way to the east, and Windsor Street to the south). The proposed location is in accordance with the location identified as a "Required" location for a Thoroughfare in the Zoning Ordinance, on Map 8.3.12(b). Please refer to Figure 2.7 [Proposed Site Plan] for proposed Thoroughfare location.

(ii.) The center line of any required thoroughfare may be moved up to twenty-five (25) feet, so long as:

a.) The center line of West Ward Street is at least one hundred and forty (140) feet from both reference points along the MBTA right-of-way;
This section is not applicable, as the area referenced is outside of the Project Site.

b.) West Ward Street intersects with Webster Avenue in the west and Harding Street in the east;
This section is not applicable, as the area referenced is outside of the Project Site.

c.) The center line of South Street is at least one hundred and forty (140) feet from both reference points along the municipal boundary with Cambridge;
This section is not applicable, as the area referenced is outside of the Project Site.

d.) South Street intersects with Webster Avenue in the west;
This section is not applicable, as the area referenced is outside of the Project Site.

e.) All required thoroughfares intersect with other thoroughfares, forming a network;
The proposed Thoroughfare intersects with Windsor Place to the west, Archibald Query Way to the east, and Windsor Street to the south, forming an extension of the street network in the Boynton Yards Sub-Area. Please refer to Figure 2.7 [Proposed Site Plan] for proposed Thoroughfare location.

f.) All intersections are at least one hundred (100) feet away from any other intersection, unless granted a waiver by the Planning Board.
The proposed Thoroughfare is located more than 100' away from any adjacent intersection.

e. Master Plan Standards

(i.) At least five percent (5%) of the total commercial floor area included in the proposed build out or twenty thousand (20,000) square

feet, whichever is less, and at least ten thousand (10,000) square feet must be dedicated to a Community Center principal use.
The Project will comply with this requirement. The project's program results in approximately 19,000 SF of Community Center space, the lesser of 5% of commercial floor area and 20,000 SF, and is at least 10,000 SF, which may be located at the Project. Alternatively, the applicant will coordinate with the City, community, and adjacent land owners to understand how a contribution towards a district-wide Community Center outside the development site, might better serve the neighborhood.

f. Build Out Standards

(i.) General – Development Sites subject to approved Master Plan Special Permit may comply with the following standards in aggregate rather than for each individual lot by Master Plan Special Permit:

(ii.) Civic Space

a.) At least twenty percent (20%) of each Development Site, excluding thoroughfares, must be provided to one or more civic spaces.
The Project's proposed Civic Space will total up to 20% of the Project Site area (excluding Thoroughfares and the Windsor Place right-of-way). Refer to Figure 2.9b [Civic Space Plan].

b.) A civic space, of at least fifty-two thousand (52,000) square feet, must be provided, abutting both West Ward Street and South Street, within the required civic space area indicated on Map 8.3.12(b) and may be developed as a public common or a public square civic space type.

This section is not applicable, as the area referenced is outside of the Project Site.

(iii.) Commercial Floor Area

a.) At least seventy-five percent (75%) of the floor space of any building must be dedicated to non-residential uses, excluding Auto-Oriented principal uses.

The proposed Building is intended to include life science use, and 100% of the Gross Floor Area will be dedicated to non-residential uses, excluding Auto-Oriented principal uses.

b.) At least ten percent (10%) of the total commercial floor area required by Section 8.3.11.f.iii must be dedicated to Arts & Creative Enterprise principal uses.

The proposed Project will comply with the Zoning Ordinance by setting aside 10% of the total Commercial Area for Arts & Creative Enterprise uses. For the proposed Building, this is estimated to total approximately 38,000 SF.

c.) At least three hundred and seventy-five (375) square feet of commercial space must be provided for each dwelling units.
This section is not applicable to the proposed Project, which does not include any dwelling units.

d.) Any development site that includes lot MBL 96/A/6 must provide at least one hundred thousand (100,000) leasable square feet of commercial space dedicated to Arts & Creative Enterprise principal uses.
This section is not applicable to the proposed Project, as the area referenced is outside of the Project Site.

g. Building Standards
(i.) The standards of Table 8.3.12(a) supersede specific dimensional standards for building types permitted by the zoning district shown on the regulating maps of this Section.

In addition to being located within the Boynton Yards Sub-Area, the Project Site is also located in the High Rise (HR) district. Per the requirements defined in the HR district, the proposed Building will be designed to comply with the "Lab Building" typology (as described in Article 5 of the Zoning Ordinance). The table below describes the proposed Building's dimensional attributes relative to its building lot.

Table 7.1 Dimensional Standards

Lab Building Typology	**Required**	**Proposed***
Lot Dimensions		
Lot Width (min ft)	30′	267′ 8″
Lot Development		
Lot Coverage (max %)	100%	78.3%
Open Space (min %)	NA	21.7%
Building Setbacks		
Primary Front Setback (ft)	2′-15′	2′
Side Setback (ft)	0′	20′
Rear Setback (ft)	0′	10′
Building Massing		
Building Width (ft)	< 240′	234′
Podium Floor Plate (ft)	< 35,000 SF	33,000 SF
Typical Floor Plate (ft)	< 35,000 SF	31,000 SF
Building Height (ft) / Stories	Unlimited	185′ / 12 Stories **

* Values are subject to refinement and change during design review but will remain compliant.

**The Building Height and number of Stories is for occupiable levels of the proposed Building and does not include the Mechanical Penthouse levels.

h. Use Provisions
(i.) The standards of Table 8.3.12(b) supersede the table of permitted uses for the High-Rise district for development subject to an approved Master Plan Special Permit.

This section is not applicable for the proposed Project. The Project does not propose the incorporation of any superseding permitted uses.

(ii.) Accessory motor vehicle parking for customers of retail sales or food & beverage service uses is prohibited for real property in any MR district shown on Map 8.3.12(a) but may be provided for employees.

This section is not applicable for the proposed Project, as the districts referenced are outside of the Project Site.

(iii.) In addition to the review criteria for all Special Permits specified in Section 15.2.1.e Review Criteria, the review board shall make findings considering the following in its discretion to approve or deny a special permit authorizing a manufacturing principal use:

a.) **Capacity of the local thoroughfare network providing access to the site and impact on pedestrian, bicycle and vehicular traffic and circulation patterns within the neighborhood.**
The Project does not propose manufacturing as a principal use.

b.) **Methods or techniques for noise mitigation to limit noise for other users of the building and abutting properties.**
The Project does not propose manufacturing as a principal use.

i. **Parking and Mobility**

(i.) The maximum number of off-street parking spaces in the BY sub-area may not exceed one thousand five hundred (1,500) spaces.
In accordance with the approved Mobility Management Plan for the Project, off-street vehicular parking has been planned to meet the mobility goals of the Boynton Yards Overlay district with the proposed 200 parking spaces falling within the available 1,500 parking space limit for the area.

(ii.) Up to three hundred (300) off-street parking spaces may be provided as reserved parking spaces.
As conditioned by the approved Mobility Management Plan for the project, up to 15 spaces may be designated as reserved within the Project.

(iii.) Off-street motor vehicle parking spaces may be provided as surface parking on a revolving two (2) year basis for real property in any HR district shown on Map 8.3.12(a) by Special Permit.
The Project does not propose any surface parking as part of the Project Site.

7.2 Article 10 | Development Standards

10.3 Green Score
10.4.3 Applicability

a. This section is applicable to the construction of any new principal building and any substantial renovation of a principal building.

This application is for MPSP approval. During the Site Plan Review process, detailed landscape plans and Green Score calculations will be provided highlighting the Site's compliance with the Green Score associated with the "Lab Building" typology. Zoning requirements for Landscaping (Section 10.3) and Civic Space (Section 13.1) will be referenced in making material and plant selections.

10.4.4 Compliance & Enforcement

a. Real property must comply with the Green Score indicated for each building type. See the standards for each building type in each zoning district for more information.

This application is for MPSP approval. During the Site Plan Review process, detailed landscape plans and Green Score calculations will be provided highlighting the Site's compliance with the Green Score associated with the "Lab Building" typology.

10.11 Sustainable Development

10.11.1 Green Buildings

b. New construction or modifications to any principal building type greater than fifty thousand (50,000) square feet in gross floor area must be LEED Platinum certifiable.

This application is for MPSP approval. The proposed Building will comply with the "Lab Building" typology as defined in the Zoning Ordinance. Per this typology, the Project will be designed to be LEED Platinum certifiable. During the Site Plan Review process, a LEED scorecard and additional detailed technical information will be provided to highlight the project's pathway to LEED Platinum (and subsequent compliance with this Section of the Zoning Ordinance).

c. Development subject to the provisions of this Section must meet the standards of the most current LEED building rating system. During the twelve (12) month time period after the adoption of a new version of LEED, permit applications may be submitted demonstrating compliance to either the immediately previous or newly adopted version of the LEED building rating system.

During the Site Plan Review process, a LEED scorecard and additional detailed technical information will be provided to highlight the project's pathway to LEED Platinum (and subsequent compliance with this Section of the Zoning Ordinance). The LEED rating will be based on the requirements of LEED v4, which is the current rating system version. The project will apply specific beta version 4.1 credits that are beneficial to the project.

d. Development review applications for development subject to the provisions of this Section must include:
(i.) A completed LEED checklist for the appropriate LEED building standard to demonstrate how the proposed development is anticipated to meet the standards of this Section.

This application is for MPSP approval. During the Site Plan Review process, a detailed LEED scorecard will be provided to highlight the project's pathway to LEED Platinum certifiable status.

(ii.) A narrative indicating the mechanisms proposed to achieve each of the credits and prerequisites of the appropriate LEED building standard and demonstrating the anticipated methods by which compliance with the requirements of this Section will be achieved at the time of construction.

This application is for MPSP approval. During the Site Plan Review process, a detailed narrative will be provided to highlight compliance with the specific credits and prerequisites needed to achieve LEED Platinum certifiable status.

(iii.) An affidavit by a LEED-Accredited Professional (LEED-AP) Project Manager or by appropriate consultants stating that to the best of their knowledge, the project has been designed to achieve the stated LEED building standard.

This application is for MPSP approval. During the Site Plan Review process, the Project will submit an affidavit signed by a LEED-Accredited Professional (LEED-AP) stating that the project has been designed to meet LEED Platinum certifiable status.

e. Prior to the issuance of the first Building Permit and prior to the issuance of the first Certificate of Occupancy, the LEED checklist and narrative description outlining compliance with the certification level required by this Section must be updated to identify any design changes made subsequent to Site Plan Approval and submitted to the Building Official accompanied by an affidavit by a LEED-AP Project Manager or appropriate consultants stating that, to the best of their knowledge, the project has been designed to achieve the stated LEED building standard.
The Project will submit an updated LEED scorecard and narrative description outlining compliance with the LEED Platinum requirements prior to the issuance of a Building Permit, and also prior to the issuance of the Certificate of Occupancy.

10.11.2 Green Roofs & Storm Water Management

a. To every extent practicable, storm water should be reused on-site for irrigation or other purposes.
The design team will evaluate the practicality of reusing stormwater for irrigation during the detailed design phase.

b. The review boards may authorize the City Engineer to grant a credit to properties, against which any storm water impact fees are imposed, equivalent to the quantity of storm water that is removed from entering the system through the use of green roofs or other onsite storm water management practices.

Subsurface infiltration systems are proposed to manage stormwater and reduce flows entering the municipal storm drain system. Permeable pavers and an increase in open space will also lead to a reduction of stormwater flows entering the storm drain system.

10.11.3 Heat Island Reduction

a. Roofs and parking covers must have a Solar Reflectance Index as specified on Table 10.11.1 for a minimum of seventy five percent (75%) of the roof area of parking spaces.

The proposed Project will be designed to include a roof surface with a Solar Reflectance Index (SRI) at or above the requirement. Additionally, a significant amount of surface parking and other pervious areas will be removed from the site further reducing the Heat Island effect associated with the Project Site.

(i.) Roof area and parking spaces covered by solar collectors and green roofs compliant with the provisions of this Ordinance are exempt.

This application is for MPSP approval. The proposed Building is intended to include life science uses, resulting in a considerable amount of equipment located at the roof level. During the Site Plan Review process, detailed plans will be submitted highlighting the implementation of green roof elements and/or PV devices should roof space be available.

b. Uncovered surface parking spaces must have an initial solar reflectance of at least 0.33 or a three (3) year aged solar reflectance of at least 0.28.

This section is not applicable to the proposed Project. The Project Site does not propose uncovered surface parking spaces.

10.11.4 Environmental Performance

a. The review boards shall establish submittal requirements for development review applications to ensure the following:

(i.) That shadows cast by high-rise buildings do not substantially and adversely limit ground level access to sunlight on sidewalks and Civic Spaces.

The shadows produced by the Project are not expected to have an adverse effect on any residential areas or open space in the vicinity of the Project Site. Given the proposed layout, the majority of net new shadows will be cast to the north and east, towards the MTBA train tracks and adjacent paved areas. Refer to Appendix A

[Shadow Studies] for analysis highlighting the net new shadow impacts created by the Project.

(ii.) That by high-rise buildings pedestrian level wind velocities do not exceed acceptable levels for various activities at existing or proposed locations.

This application is for MPSP approval. During the Site Plan Review process, a detailed analysis demonstrating acceptable pedestrian wind comfort will be prepared and submitted for review to highlight the Project's compliance.

(iii.) That buildings do not cause visual impairment or discomfort due to reflective spot glare and solar heat buildup in any nearby buildings.

This application is for MPSP approval. During the Site Plan Review process, a detailed analysis will be prepared and submitted to demonstrate that the Project does not result in any conditions leading to visual impairment or unacceptable levels of solar glare.

7.3 Article 11 | Parking and Mobility

11.1 Bicycle Parking

Approximately 131 long and short-term bicycle parking spaces will be provided as part of the Project. During the Site Plan Review process, detailed plans highlighting the location, layout and design of the bicycle parking accommodations will be provided to highlight the Project's compliance with the Zoning Ordinance.

11.2 Motor Vehicle Parking

The proposed Project includes 200 parking spaces located in a sub-grade structured parking facility, which is within the total of 1,500 spaces allocated to the Boynton Yards Sub-Area as outlined above. These 200 parking spaces will support the commercial development at a ratio of 0.53 spaces per 1,000 SF, which is at the low end of the range of parking ratios for comparable projects in the region. Detailed parking level plans will be provided as part of the Site Plan Review process.

11.3 Shared Parking

In accordance with Somerville Zoning, motor vehicle parking spaces may be shared between uses on the same lot and buildings on the same block. Although parking for the Project will be shared between uses on the same lot to help prevent unnecessary land being devoted to parking, because the majority of the Project is a commercial use and the Project includes no residential uses, the Project has not applied a shared-parking deduction to the number of motor vehicle parking spaces required for the combined uses.

11.4 Mobility Management Plan

a. A mobility management plan (MMP) is required for all development and for Master Plan Special Permits.

Refer to Appendix B [Mobility and Transportation] for a completed Mobility Management Plan Certification letter in accordance with the submission requirements.

7.4 Article 15 | Administration and Review Criteria

15.2.2 Master Plan Special Permit

e. Review Criteria

(i.) In its discretion to approve or deny a development review application requiring a Master Plan Special Permit, the Planning Board shall make findings considering, at least, each of the following:

a.) The comprehensive plan and existing policy plans and standards established by the City.

Located in the Master Plan Development Overlay district and within the Boynton Yards Sub-Area, the Project represents an opportunity to contribute to the fulfillment of the City's vision for the district as a vibrant, mixed-use environment. Guided by Somervision 2030, the Union Square Neighborhood Plan, and the Boynton Yards Urban Design Framework, the proposed Project offers a vision to support commercial development focused on research, science and technology, while also serving to strengthen the neighborhood's public realm and street hierarchy. Aligned with the City's planning principles, the proposed uses will serve to contribute to the economic revitalization of the Union Square and Boynton Yards neighborhoods, while also strengthening Somerville's emerging life sciences cluster.

b.) The intent of the zoning district where the property is located.

The Zoning provisions for the Boynton Yards Sub-Area primarily focus on providing a greater variety, density and intensity of land uses with the introduction of larger scale commercial buildings, while also establishing a stronger network of streets and open spaces. By offering a commercial program focused on life science uses, and a considerable Civic Space and expanded public realm, the proposed Project is aligned with the intent of the Zoning requirements for the district. Strategies related to sustainable design, in concert with the introduction of Arts & Creative Enterprise spaces, further align the Project with the intent of the district.

c.) The proposed alignment and connectivity of the thoroughfare network.

The proposed Thoroughfare intersects with Windsor Place to the west, Archibald Query Way to the east, and Windsor Street to the south, forming an extension of the street network in the Boynton Yards Sub-

Area. Additionally, improvements to the public realm along Windsor Place will comply with the Zoning Ordinance to offer a generous 18' sidewalk condition focused on enhancing the pedestrian experience.

d.) The gross floor area allocated to different use categories.
The Project proposes approximately 380,000 SF of commercial use, of which approximately 11,000 SF will be of supporting retail use. The proposed use ratio is in compliance with the provisions of Article 8 of the Zoning Ordinance. Reference table 7.2 at conclusion of this section.

e.) Mitigation proposed to alleviate any adverse impacts on utility infrastructure.
In order to alleviate adverse impacts on utility infrastructure, the Project will be increasing the pervious area onsite to promote infiltration; funding public contributions that will contribute to neighborhood infrastructure; implementing sustainability strategies that reduce flows; installing onsite stormwater management facilities; and making an inflow and infiltration mitigation contribution.

f.) Proposed development phasing.
Please refer to Section of Chapter 5, Implementation Overview, for a description of project phasing.

g.) Proposed on-street parking to address demand by customers of Retail Sales, Food & Beverage, or Commercial Services principal uses.
The Project will include on-street parking spaces and/or a drop-off zone to support business demand and the design details will be coordinated with the Mobility Division as part of Design Review process. Off-street parking for the retail and other commercial uses is otherwise provided by way of the 200 off-street parking spaces located in a sub-grade parking facility beneath the building, as outlined above.

Table 7.2 Dimensional Compliance of the Proposal with Article 8 of the Zoning Ordinance

Requirement	Required	Code	Proposed	as %	Compliance
Total Buildout	*NA*	*NA*	380,000	*NA*	*NA*
Site Area	*NA*	*NA*	59,061	*NA*	*NA*
Site Area (w/o Thoroughfares)	*NA*	*NA*	54,925	*NA*	*NA*
Thoroughfare Network	*Eastern Lot Line*	*8.3.12.d.i*	as Required	NA	Yes
Non-Residential Uses	75% min	*8.3.12.f.iii.a*	380,000	100%	Yes
Arts and Creative Uses	10% min	*8.3.12.f.iii.b*	38,000	10%	Yes
Community Center	5% or 20,000 SF	8.3.12.e.i	19,000	5%	Yes
Civic Space	20% min	8.3.12.f.ii.a	10,985	20%	Yes

Off-Street Parking	1,500 max	8.3.12.i.i	200 spaces	*NA*	Yes

7.5 Special Permits

This application is for MPSP approval. The Applicant does not anticipate applying for any special permits or variances in addition to (or in connection with) the MPSP for the Project.

---------- End of Narrative ----------