



COORDINATED DEVELOPMENT SPECIAL PERMIT APPLICATION

APPENDIX 3: CIVIC SPACE STUDY UNION SQUARE REDEVELOPMENT

Submitted to the City of Somerville
Revised — November 7, 2017

Union Square Station Associates LLC
31 Union Square, Somerville, MA 02143



CONTENTS

EXECUTIVE SUMMARY	5
--------------------------	----------

EXISTING CONDITIONS ANALYSIS	7
-------------------------------------	----------

DEFINING THE CIVIC SPACE STUDY AREA	7
-------------------------------------	---

STUDY AREA CIVIC SPACES	8
-------------------------	---

CONTEXT - LANDSCAPE USE TYPES	12
-------------------------------	----

CONTEXT - EXISTING CONDITIONS	14
-------------------------------	----

CONTEXT - FUTURE CONDITIONS	16
-----------------------------	----

WALKSHED ANALYSIS	18
-------------------	----

DEMOGRAPHIC ANALYSIS	27
----------------------	----

SOCIAL EQUITY	31
---------------	----

NEEDS ASSESSMENT	37
-------------------------	-----------

IDENTIFIED CITYWIDE CIVIC SPACE NEEDS	37
---------------------------------------	----

CITY DEPARTMENT FEEDBACK	39
--------------------------	----

FINDINGS FROM EXISTING CONDITIONS ANALYSIS	40
--	----

COMMUNITY FEEDBACK	41
--------------------	----

CONCLUSIONS	43
-------------	----

THIS PAGE IS INTENTIONALLY LEFT BLANK.

EXECUTIVE SUMMARY

CIVIC SPACE STUDY OVERVIEW

As part of the CDP planning process, the city required the preparation of this Civic Space Study (CSS) in order to assess existing conditions and needs for civic space in Union Square. The intent of the analysis is to generate data on existing landscape amenities, the people who use civic spaces in the Union Square neighborhood and anticipate future needs as well as any local or city-wide civic space needs. The study acknowledges that the information is taken as a snapshot in time and is mindful of the evolution of conditions and the multitude of perspectives that need to be considered. With this in mind, the background provided by the CSS helped to inform the civic space plans for the revitalization of Union Square. During the Coordinated Development Plan

process, the locations and sizes of particular civic spaces will be defined and at the Design and Site Plan Review stage, the public process will include a discussion of the design, program and character of each individual civic space proposed within the development.

The CSS focused on a defined area, identified by extending a ½ mile radius from each of the D Blocks (approximately a 10 minute walk). Existing conditions were assessed to provide important context for the plan and to identify areas of opportunity. The assessment contains an inventory of existing civic spaces, a walkshed analysis for each space type, as well as a review of the local demographics and

FIGURE 3.1: UNION SQUARE CIVIC SPACE STUDY AREA



environmental justice populations to help identify who the spaces served. The needs assessment portion of the study cataloged open space goals from other city processes, gained open space perspective via city department interviews, summarized the open space feedback from the CDP neighborhood meetings and outlined the findings from the existing conditions assessment. This work was then distilled into a series of conclusions that directly informed the CDP civic space approach that is outlined in the Civic Space section of the application.

The existing conditions review inventoried 34 acres of existing open space within the study area comprised of 78.5% parks, 19.8% commons and 1.7% plazas. Closer inspection of the existing conditions noted that a majority of the existing spaces, 70% of locations and 62% of the area are located to the north and west of the D Blocks. Walkshed analyses were also performed on the six civic space types that were present in the study area. This analysis revealed that a majority of residents and workers in the study area can reasonably walk to one or more civic spaces and reinforced that the north central portion of the study area is best served by existing spaces. Walkshed analysis also identified D1, D2 and D4 as blocks that could fill neighborhood civic space gaps or provide higher levels of service.

In order to review another aspect of accessibility, Environmental Justice populations were examined within the study area based on 2010 Census data and the criteria provided by the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA). The EOEEA identifies criteria for vulnerable populations related to low income, minorities or English language isolation and seeks to promote the equitable distribution of environmental benefits. All of the D Blocks, with the exception of D7, fall within the environmental justice population areas and the findings indicate that the populations that meet more than one of the three environmental justice populations are primarily located east of the D Blocks.

The needs assessment also considered the civic space needs of both existing and new populations of workers and residents as their use patterns will evolve with the neighborhood. With the introduction of the Green Line as a catalyst for growth, 5,000 new workers and 1,000 new homes will influence new centers of activity and planned civic spaces should anticipate and respond to that future. Moreover, a

FIGURE 3.2: UNION SQUARE WALKSHED AND ENVIRONMENTAL JUSTICE MAPS

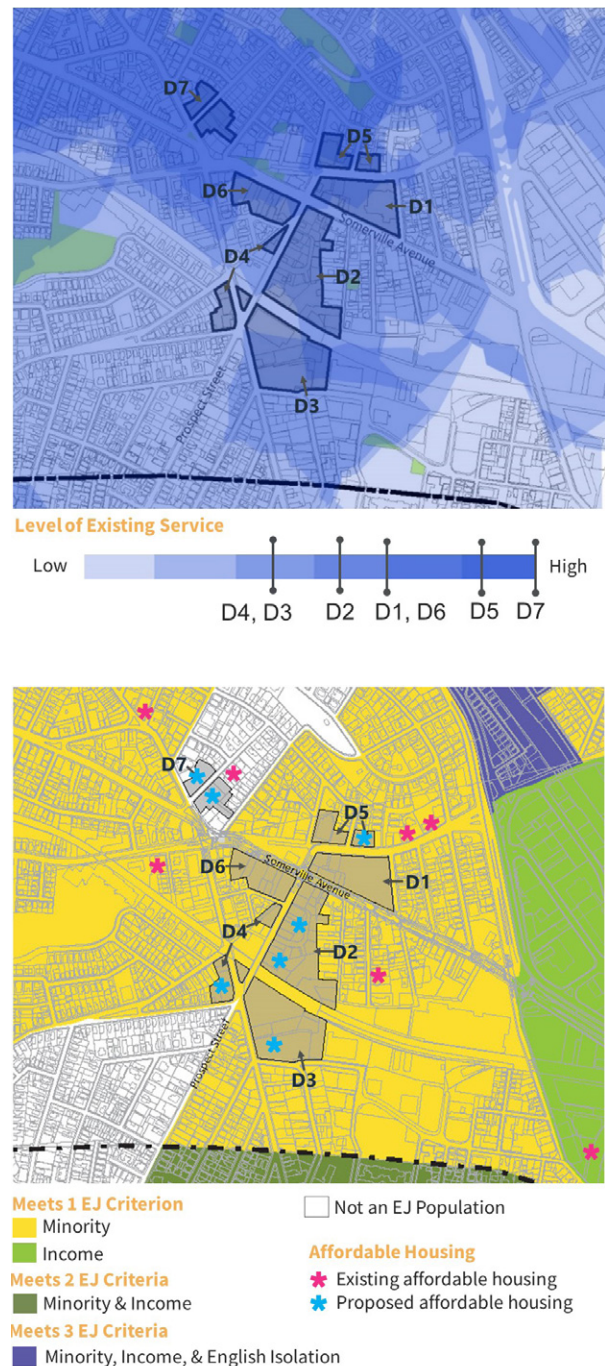
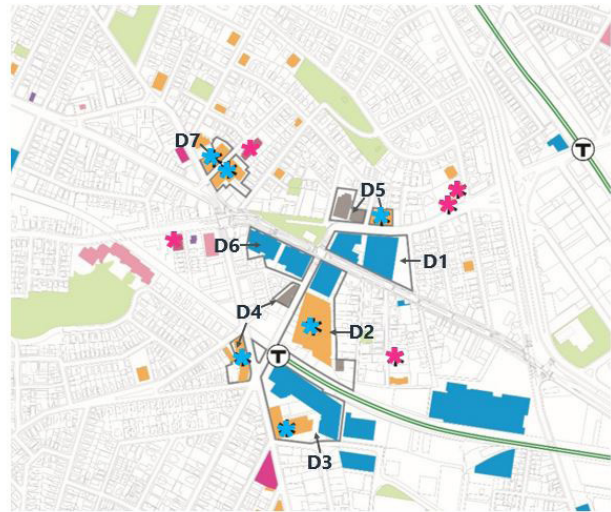
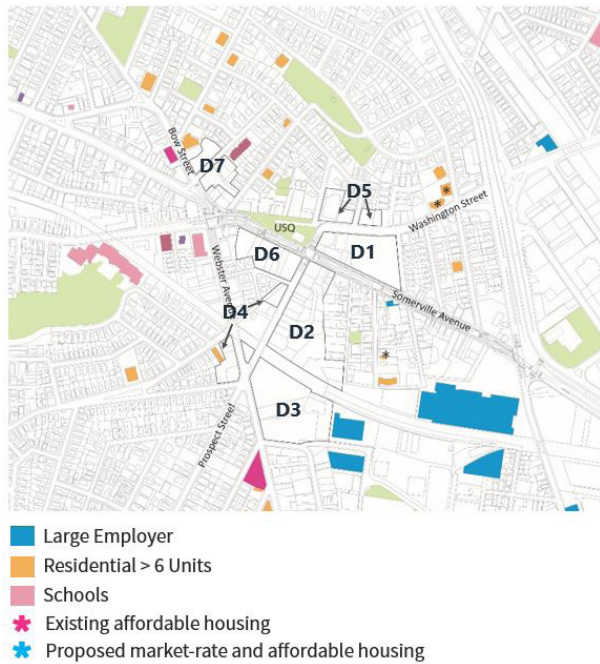


FIGURE 3.3: PRESENT AND FUTURE CONDITIONS



GLX is a catalyst for growth and D Block revitalization. 5,000 new workers, 1,000 new homes.

demographics review highlighted the need for spaces to serve a variety of ages and users, identifying opportunities to serve the needs of the largest population (ages 25-34) as well as a growing elderly population.

City department representatives from Parks and Recreation, Sustainability and Environment, Parks and Open Space were interviewed to get their feedback about the open space needs and priorities for the community. These conversations elevated the importance of considering open space’s role in mitigating vulnerability to climate change, especially related to urban heat island impacts and flood risk. Interviewees also cited the need for more open spaces and more multi-use open spaces throughout the city to serve a variety of users and uses. One use, the need for more athletic fields, was particularly identified as a pressing need. This resulted in an acknowledgment that the D Blocks can meet many civic space needs but are unable to respond to the need for athletic fields given their locations, their shape and the other economic development goals for the properties.

Community input was also important to understanding community needs and preferences and how they can guide the civic space planning. To that end, the following relevant community-driven planning processes and resulting reports were reviewed to understand the open space goals included therein: SomerVision, Union Square Neighborhood Plan, the Open Space and Recreation Plan and the Union Square Zoning. The detailed results of this review are included in the CSS and the highlights of the open space goals include: creating multi-functional and multi-user spaces; supporting urban agriculture and community gardening; including sustainable features; focusing on pedestrian connectivity and experience; incorporating the arts and creativity; considering the needs of senior citizens; and ensuring that community input informs the civic space planning process.

In addition, US2 hosted two neighborhood meetings for the CDP and the team received many comments about open space, some of which coalesced, while others expressed differing views from each other. The first meeting on September 5, 2017, included

over 140 community members and covered a wide array of project topics including open space. In general, there was a strong interest in open space and a fairly consistent desire for green planted spaces and “urban oasis” over hard spaces. There was also a lot of interest in sustainable measures and arts-directed spaces. The meeting also explored the connectivity of various spaces – both formal and informal.

Considerable discussion at the first meeting centered on the location of the neighborhood park. The original location suggested in the Neighborhood Plan was D4.3. At the request of community members during the zoning process, US2 considered D1 and D7 as alternative locations. Upon further analysis and consideration of a variety of factors, the D1 location emerged as the preferred location and was presented at the neighborhood meeting. D4.3 was only mentioned as a preference by one or two attendees; however, there was divided opinion as to whether D1.2 or D7.2 would be a better location for this neighborhood amenity.

Given the level of interest in the park location and at the encouragement of neighborhood residents, another meeting was hosted on October 18, 2017 to present the park alternatives analysis, provide additional detail about the proposed D1.2 location and discuss the ideas with community members.

The meeting was attended by over 50 people and the discussion was thoughtful and passionate. Several participants commented on the importance of adding new open space and doing it thoughtfully as well as ensuring that a broad group of residents could offer their input. During the discussion, there were divided views as to whether D1.2 or D7.2 was the best location. D7.2 advocates cited its solar orientation, location near existing neighborhood activity nodes and proximity to the senior housing building as clear advantages. Advocates of D1.2 highlighted its location in an underserved portion of the neighborhood, its location midway between the

future MBTA stations and its proximity to affordable housing on Washington Street and Linden Street. More details about the open space discussion at each of the neighborhood meeting is provided later in this CSS, and full meeting details are provided in Appendix 2.

The observations and findings from the CSS informed the approach to the civic space study included herein. Some of the CSS’s influences on the CDP civic space plan included herein are highlighted as follows:

- The civic space plan responds to the important and detailed civic space zoning requirements including overall civic space area requirements, the need for a 27,000 square foot Neighborhood Park and Plaza and the defined design standards for the nine permitted civic space types (area, seating, tree count, green space, previous area, etc.).
- In order to address the breadth of users and use needs as well as the evolving use patterns in the neighborhood, six of the seven D Blocks include a civic space and the two main spaces, the D2 plaza and the D1.2 neighborhood park are centrally located to serve a breadth of users.



- Connectivity and linkages between civic spaces were a significant driver of the open space plan.
- The D1.2 neighborhood park was sited in order to address an open space inequity on the eastern portion of the neighborhood uncovered during the existing space inventory.
- For the group of residents that supported a more significant open space (ideally the neighborhood park) on D7.2, a 6,000 square foot open space was added on D7.2 and pathways to Bow Street and to the senior and young/disabled housing have been included to respond to the community interests.
- To address the stated need for community gardens, the D4.3 Concord Community Garden is being preserved.
- The D3.2 open space was relocated from the Windsor Place frontage to the Webster Street frontage to provide a better buffer from the existing residential neighborhood as requested by community members.
- In response to the expressed desire for significant community involvement in the type and character of each space, the development team has opted to defer the designation of the civic space type for civic space parcels that have type flexibility until the site plan review stage. This will give opportunity for the community, as well as specific building and streetscape design, to drive the design and character of the space. In addition, based on community feedback, sustainable design features and incorporation of arts and performance opportunities will be important themes as individual spaces are designed and programmed.

Additional details about the CSS findings and their influence on the open and civic space plan can be found in the conclusion section at the end of the CSS.

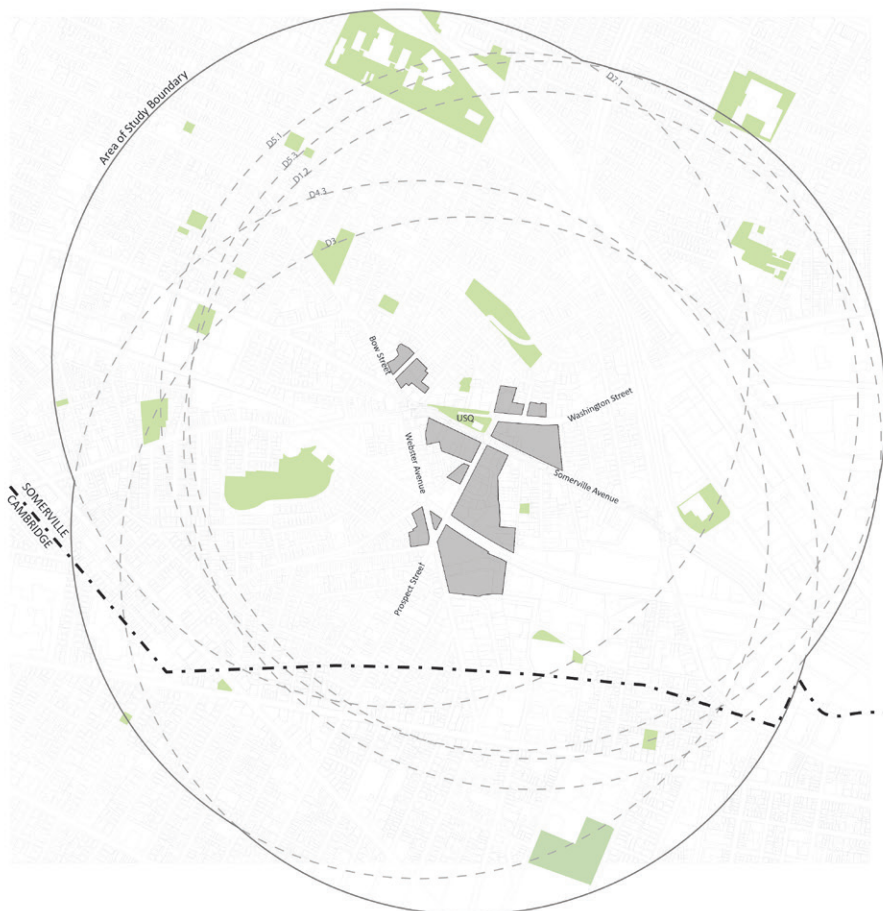
THIS PAGE IS INTENTIONALLY LEFT BLANK.

EXISTING CONDITIONS ANALYSIS

DEFINING THE CIVIC SPACE STUDY AREA

To better understand the surrounding context of the proposed Union Square revitalization development, the area within comfortable walking distances of the development was considered from various perspectives. The specific boundary of the study area was defined by extending a half mile radius (roughly equating to a 10 minute walk) from the center of each proposed development parcel and then tracing the outermost radii of all the parcels combined. Due to the proximity of Union Square to the Somerville city line, and the high likelihood that residents of one city would use the outdoor spaces of the other, the study area boundary extends into Cambridge. This boundary is used repetitively throughout the civic space analysis.

FIGURE 3.4: STUDY AREA DIAGRAM



STUDY AREA CIVIC SPACES

Captured in the accompanying image, are the 30 civic spaces that currently exist within the study area. These spaces were analyzed both as they relate to type and size in order to inform the opportunities that may exist to fulfill a unique need. The study is based on information collected by the Mayor’s Office of Strategic Planning and Community Development and does not employ the exact same typologies for civic space as the Union Square Overlay zoning, however certain observations can still be made.

FIGURE 3.5: EXISTING CIVIC SPACE USE TYPES



TABLE 3.1: EXISTING CIVIC SPACE EVALUATION

#	EXISTING LOCATION NAME	CITY	TYPE (USQ OVERLAY)	SF	Acres	% of Total	CIVIC USES (ZONING OVERHAUL)	
PARKS				1,163,136	26.70	78.47%		
Regional Parks				-	0.00	0.00%		
N/A				-	0.00	0.00%		
Community Parks				335,412	7.70	22.63%		
1	Lincoln Park	Somerville	n/a	243,936	5.60	16.46%	Athletic Fields	Playground
2	Art Farm	Somerville	Neighborhood Park	91,476	2.10	6.17%	Government/Public Service	Urban Agriculture
Neighborhood Parks				779,424	17.89	52.59%		
3	Donnelly Field	Cambridge	Neighborhood Park	307,844	7.07	20.77%	Athletic Fields	
4	Glen Park/Capuano Playground	Somerville	Neighborhood Park	83,576	1.92	5.64%	Schoolyard	Playground
5	Prospect Hill Park	Somerville	Neighborhood Park	71,178	1.63	4.80%	Passive Space	Landmark
6	Perry Park	Somerville	Neighborhood Park	55,460	1.27	3.74%	Passive Space	
7	Nunziato Field	Somerville	Neighborhood Park	39,835	0.91	2.69%	Athletic Fields	
8	McCarthy/Capuano Field	Somerville	n/a	37,897	0.87	2.56%	Athletic Fields	
9	Edward Leathers Community Park	Somerville	Neighborhood Park	32,348	0.74	2.18%	Passive Space	Dog Park
10	Milk Row Cemetery	Somerville	Neighborhood Park	30,241	0.69	2.04%	Government/Public Service	Landmark
11	Senator Corbett McKenna Park	Somerville	Playground	27,016	0.62	1.82%	Playground	
12	Cummings Schoolyards (2 street frontages)	Somerville	Neighborhood Park	19,293	0.44	1.30%	Schoolyard	Playground
13	Osgood Park	Somerville	Neighborhood Park	17,337	0.40	1.17%	Playground	Urban Agriculture
14	Somerville Community Growing Center	Somerville	Community Garden	15,555	0.36	1.05%	Urban Agriculture	
15	Gannett Warren Pals Park	Cambridge	Neighborhood Park	14,577	0.33	0.98%	Playground	Passive Space
16	South Street Farm	Somerville	Community Garden	14,268	0.33	0.96%	Urban Agriculture	
17	Walnut Street Park	Somerville	Community Garden	12,999	0.30	0.88%	Playground	Urban Agriculture
Pocket Parks				48,300	1.11	3.26%		
18	Nunziato Dog Park	Somerville	Dog Park	9,383	0.22	0.63%	Dog Park	
19	Central Hill Park Playground	Somerville	Playground	9,348	0.21	0.63%	Playground	
20	Stone Place Park	Somerville	Pocket Park	6,159	0.14	0.42%	Passive Space	
21	Duffett Tot Lot	Cambridge	Playground	5,340	0.12	0.36%	Playground	
22	Allen Street Community Garden	Somerville	Community Garden	5,130	0.12	0.35%	Urban Agriculture	
23	Quincy Street Park	Somerville	Pocket Park	5,098	0.12	0.34%	Passive Space	
24	Avon Community Garden	Somerville	Community Garden	4,229	0.10	0.29%	Urban Agriculture	
25	Palmacci Playground	Somerville	Playground	3,613	0.08	0.24%	Playground	
COMMONS				293,432	6.74	19.80%		
Public Common				277,778	6.38	18.74%		
26	Central Hill Park	Somerville	n/a	229,311	5.26	15.47%	Passive Space	
27	Central Hill Park, Library	Somerville	n/a	48,467	1.11	3.27%	Passive Space	
Public Square				-	0.00	0.00%		
N/A				-	0.00	0.00%		
Green				15,654	0.36	1.06%		
28	Pearl Street Park (Gilman Square)	Somerville	Green	15,654	0.36	1.06%	Passive Space	
PLAZAS				25,636	0.59	1.73%		
Central Plaza				25,636	0.59	1.73%		
29	Union Square Plaza	Somerville	Plaza	16,302	0.37	1.10%	Passive Space	Café Area
30	Mayer Alfred E. Vellucci Community Plaza	Cambridge	Plaza	9,334	0.21	0.63%	Passive Space	
Through Block Plaza				-	0.00	0.00%		
N/A				-	0.00	0.00%		
Pocket Plaza				-	0.00	0.00%		
N/A				-	0.00	0.00%		
TOTAL CIVIC SPACE				1,482,204	34.03	100.00%		

Somerville

In general the vast majority of the existing civic spaces within a 10 minute walk of the development are parks of some type (78% are parks including 23% community parks, 53% neighborhood parks, 3% pocket parks). The parks range widely in size from 3,600 SF to 307,800 SF. The largest park, Donnelly Field, is actually in Cambridge, followed by Lincoln Park at 243,900 SF. The other parks include Art Farm, Glen Park, Prospect Hill Park, Perry Park, Nunziato Field, McCarthy Field, Edward Leathers Community Park, Milk Row Cemetery, Senator Corbett McKenna Park, Cummings Schoolyards, Osgood Park, Somerville Community Growing Center, Gannett Warren Pals Park, South Street Farm , Walnut Street Park, Nunziato Dog Park, Central Hill Park Playground, Stone Place Park, Duffett Tot Lot, Allen Street Community Garden, Quincy Street Park, Avon Community Garden, Palmacci Playground.

The next largest civic space type, a commons, is also park-like, an example being the Central Hill Park by Somerville City Hall at 229,300 SF. 20% of the existing civic spaces are Commons (19% public common and 1% green). The other commons include

Central Hill Park (Library) and Pearl Street Park. Plazas account for a very small percentage of the existing civic spaces, the most significant one being Union Square Plaza. Only 2% of the existing civic spaces are plazas, all of which are Central Plazas. The largest is Union Square Plaza at 16,300 SF. The other plaza is Mayer Alfred E. Vellucci Community Plaza in Cambridge.

It was also noted that the majority of the existing civic spaces are located to the Northwest side of the study area, leaving the Eastern side under-served.

The combination of these findings was provided by the City of Somerville and the City of Cambridge based on the civic space study area. The accompanying, Table 3.4 Existing Civic Space Evaluation, reflects this contribution and provides a resource for continued analysis.

CONTEXT - LANDSCAPE USE TYPES

Landscape use types further describe the existing civic spaces, some of which include multiple landscape use types. These use types identify activities such as athletic fields, school yards, government and public services, passive spaces, playgrounds, urban agriculture, dog parks, café space and landmarks. The use types were defined by the Mayor's Office of Strategic Planning and Community Development and are identified in Table 3.4. Information collected on use types can be used to understand types of uses that are currently provided, and identify those that may be lacking.

The most common landscape use types within the study area are passive spaces, playgrounds and urban agriculture, passive spaces being the most represented. Playgrounds are the second most common landscape use type: notably, a significant majority of homes within the study area are within a short walk to a playground. Reflecting a growing desire for community garden space, the third highest landscape use type is urban agriculture.

Passive Spaces are the most common landscape use type as 36% of existing civic spaces include passive space. The existing civic spaces that include passive space are Prospect Hill Park, Perry Park, Edward Leathers Community Park, Gannett Warren Pals Park, Stone Place Park, Quincy Street Park, Central Hill Park, Central Hill Park (Library), Union Square Plaza and Mayer Alfred E. Vellucci Community Plaza.

Playgrounds are the second most common landscape use type. 33% of existing civic spaces include playgrounds. The existing civic spaces that include playgrounds are Lincoln Park, Glen Park, Senator Corbett McKenna Park, Cummings Schoolyards, Osgood Park, Gannett Warren Pals Park, Walnut Street Park, Central Hill Park Playground, Duffett Tot Lot and Palmacci Playground.

The third highest landscape use type is urban agriculture. 26% of existing civic spaces include urban agriculture. The existing civic spaces with urban agriculture include Avon Community Garden, Allen Street Community Garden, Walnut Street Park, South Street Farm, Somerville Community Growing Center, Osgood Park, Glen Park and Art Farm.

FIGURE 3.6: LANDSCAPE USE TYPE



Landscape Use Types

Information provided by the City of Somerville "Study Area Civic Spaces Summary Table"

- Athletic Field
- School Yard
- Government/Public Service
- Passive Space
- Playground
- Urban Agriculture
- Dog Park
- Cafe Space
- Landmark

- Existing Civic Space
- Proposed Civic Space
- Proposed Development

- Area of Study
- Somerville/Cambridge City Line



CONTEXT - EXISTING CONDITIONS

Existing building types and uses that might impact the needs of the civic space were identified to better understand the Union Square community. These include schools, religious institutions, daycares, affordable housing (> 6 units), multi-residential buildings (> 6 units), elderly housing and large employers.

Schools in the study boundary include Somerville High School located within the green space of the commons at Central Hill Park, Albert F. Argenziano School next to Lincoln Park, and other schools such as Prospect Hill Academy, Community Preschool,

Ralph and Jenny Center and Violeta Montessori School. There are multiple religious institutions throughout the study area and a number of daycares that are generally located more to the periphery of the study area. Affordable and elderly housing buildings are also dispersed throughout the area, typically in smaller buildings. Currently the large employers, both private and public such as Somerville Hospital, are located away from the heart of the study area – a trend the Union Square revitalization intends to reverse.

TABLE 3.2: EXISTING USES

USE TYPE	EXAMPLES IN THE STUDY AREA
Schools	Somerville High School, Albert F. Argenziano School, Community Preschool, Ralph and Jenny Center, Violeta Montessori School
Religious Institutions	St. Joseph’s Church, United Presbyterian Church, St. Anthony’s Church, Boston Japanese Christian Church, Bethel Evangelical Church, Domitian of the Virgin Mary, Mission Church of Christ, Massachusetts Avenue Baptist, , The Faithful and True Witness Apostolic Church Ministries, Adventist Congregational Church
Daycares	Somerville YMCA, Tree House Academy Childcare, Bigelow Cooperative Daycare Center, Kiddie Academy of Cambridge, Dandelion Montessori Coop
Affordable Housing (> 6 Units)	Roosevelt Towers, 191 Washington Street, 181 Washington Street, 18 Bow Street, 33 Bow Street, 34 Linden Street, 110 Walnut Street, 109 Gilman Street
Residential Buildings (> 6 Units)	Millbrook Lofts, 181 Washington Street, 18 Bow Street, 34 Linden Street, 110 Walnut Street, Roosevelt Towers, Inman Square Apartments
Elderly Housing	Properzi Manor, Somerville Home, Hagan Manor, Burton F Faulkner Towners
Large Employers	Somerville Hospital, Greentown Labs, 561 Windsor, Formlabs, Paint Nite, Holiday INN, ABM Industries, Gentle Giant, Angelic Corporation, Market Basket, Target, Cataldo Ambulance Services, Green Cab, Somerville High School, Triumvirate Environmental, 283 Norfolk Street

FIGURE 3.7: EXISTING CONTEXT



Site Context

- Large Employers
- Religious Institutions
- Daycares
- Schools * Also a Large Employer
- Elderly Housing * Also a Residential Building (>6 Units)
- Residential Buildings (>6 Units) * Affordable Housing (>6 Units)

- Existing Civic Space
- Proposed Civic Space
- Proposed Development

- Area of Study
- Somerville/Cambridge City Line



CONTEXT – FUTURE CONDITIONS

Once the GLX station arrives and the proposed project is constructed, new populations of workers and residents will populate the square, use patterns will evolve and planned civic spaces should anticipate and respond to that evolution. Depicted here are the existing conditions within the study area combined with the imagined future buildout of the development blocks.

While impossible to predict the future, the extension of the Green Line is expected to have an enormous impact on the area. Introducing new stations at Union Square and Washington Street will serve to greatly elevate accessibility levels to the greater regional transportation network and into the heart of Union Square. Framed by these new transit nodes, the transit oriented development will add approximately 2.4 million square feet across the D Blocks. 60% of this development capacity will be destined for commercial uses, providing the space that will expand the existing workforce with 5,000 new jobs. Similarly, multi-family residential buildings will also be constructed. In total, approximately 1,000 new residences will be delivered, twenty percent (approximately 200 units) of which will be permanently affordable. Supporting these uses and enhancing the public realm, the street level of the

proposed buildings will be enlivened with active ground floor uses.

Beyond the immediate project area, additional projects are either planned or currently under construction. An itemized summary of both these and proposed D Block projects are itemized in the table below.

The site context of building types and uses, combined with the proposed building programs of the proposed development will help guide the character and type of civic space assigned during the design and site plan review stage, ensuring that the civic spaces will serve a range of users, from the elderly, to school children, to day time workers and resident families.

While both the commercial and residential build-out will occur over time, the implementation overview section of the application document describes the project’s phasing across the D Blocks. In addition, the Build-Out Program Estimate (Table 9) outlines the target program on a parcel by parcel basis, including the approximation of the delivery of market rate and affordable housing units.

TABLE 3.3: ADDED FUTURE USES

USE TYPE	EXAMPLES IN THE STUDY AREA
Schools	New Cambridge High School
Affordable Housing (> 6 Units)	D7.1, D7.2, D.5.3, D2.2, D4.3, D3.2, all residential buildings as currently planned will have 20% affordable housing
Residential Buildings (> 6 Units)	D7.1, D7.2, D.5.3, D2.2, D4.3, D3.2, 1065 Cambridge Street
Large Employers	D1.1, D1.2, D6.1, D6.2, D2.1, D3.1, D3.3

FIGURE 3.8: FUTURE CONTEXT



Site Context

- Large Employers
- Religious Institutions
- Daycares
- Schools
- Elderly Housing
- Residential Buildings (>6 Units)
- * Also a Large Employer
- * Also a Residential Building (>6 Units)
- * Affordable Housing (>6 Units)

- Existing Civic Space
- Proposed Civic Space
- Proposed Development

- Area of Study
- Somerville/Cambridge City Line



WALKSHED ANALYSIS

The walkability to each existing space was measured to determine areas of the neighborhood that are under-served by specific civic space types. A 5-minute walkshed analysis of existing spaces was performed based upon civic space centroids for each of the existing civic space types identified in Table 3.4. The walkability to civic spaces within the study area were mapped individually by subtypes from the zoning overhaul and then a composite map was compiled. In combination, the walkshed analysis helps to identify the percentage of the study area that has access to each civic space type. It should be noted that the analysis takes account of only those spaces captured within the study boundary and that should a comprehensive walkshed analysis be made that extends beyond the boundaries - very few civic space “deserts” would be revealed. After preparing and reviewing the maps, the following observations about each subtype are provided.

CENTRAL PLAZA

The two central plazas in the study area are Union Square Plaza and Mayer Alfred E. Vellucci Community Plaza (Inman Square, Cambridge). The parks’ combined walksheds serve the majority of the study area (~54% of study area), with gaps along the outer edges in the west, north, east, and southeast.

PUBLIC COMMON

The two public commons in the study area are Central Hill Park and Central Hill Park (Library).

As the parks are adjacent to each other and located towards the northern edge of the study area, the parks’ combined walksheds serve the central and north-central portion of the study area (~31% of study area).

COMMUNITY PARK

The two community parks in the study area are Lincoln Park and Art Farm (only partially improved). The parks’ combined walksheds serve the east, central, and west portions of the study area (~47% of study area). The south and north portions are unserved.

GREEN

The only green in the study area is Pearl Street Park (Gilman Square).

The park’s walkshed serves a limited (3% of study area) area around the park, located in the north of the study area.

NEIGHBORHOOD PARK

The fifteen neighborhood parks in the study area are Glen Park/Capuano Playground, Prospect Hill Park, Perry Park, Nunziato Field, McCarthy/Capuano Field, Edward Leathers Community Park, Milk Row Cemetery, Senator Corbett McKenna Park, Cummings Schoolyards, Osgood Park, Somerville Community Growing Center, South Street Farm, and Walnut Street Park, as well as Donnelly Field and Gannett Warren Pals Park in Cambridge.

The parks’ combined walksheds serve the majority of the study area (~57% of study area), with gaps in the center, southwest, and east edge.

POCKET PARK

The eight pocket parks in the study area are Nunziato Dog Park, Central Hill Park Playground, Stone Place Park, Allen Street Community Garden, Quincy Street Park, Avon Community Garden, and Palmacci Playground, as well as Maple Avenue Park (Duffett Tot Lot) in Cambridge.

The parks' combined walksheds serve the central, west, northwest, and north portions of the study area (with an isolated pocket park in the southwest) (~32% of study area). There are unserved portions in the center-west. Most of the east and south of the study area are unserved.

In order to look at the walkshed findings from another perspective, the walkshed maps and the D Blocks were specifically reviewed to determine which civic space types each block had access to, in order to highlight what opportunity might exist to fulfill a void in accessibility. The table below itemizes the six subtypes captured within the study area, denoting whether the type is accessible by a D Block in its entirety, only partially, or if it that type is not within a five minute walk. It should be noted that it is not the assumption of the applicant that a

void alone constitutes a 'need', but instead that it is one of several indicators that should be taken into consideration, amidst an evolving context of users and their preferences.

Based on this perspective, the D Blocks are best suited to fulfilling neighborhood gaps for Neighborhood Parks, Greens and Public Commons. D1, D2 and D4 can all serve to fill gaps for more than two subtypes and their consideration as locations for civic spaces would expand the range of current accessibility. Alternatively, D7 is within a five minute walk to five of the six subtypes.

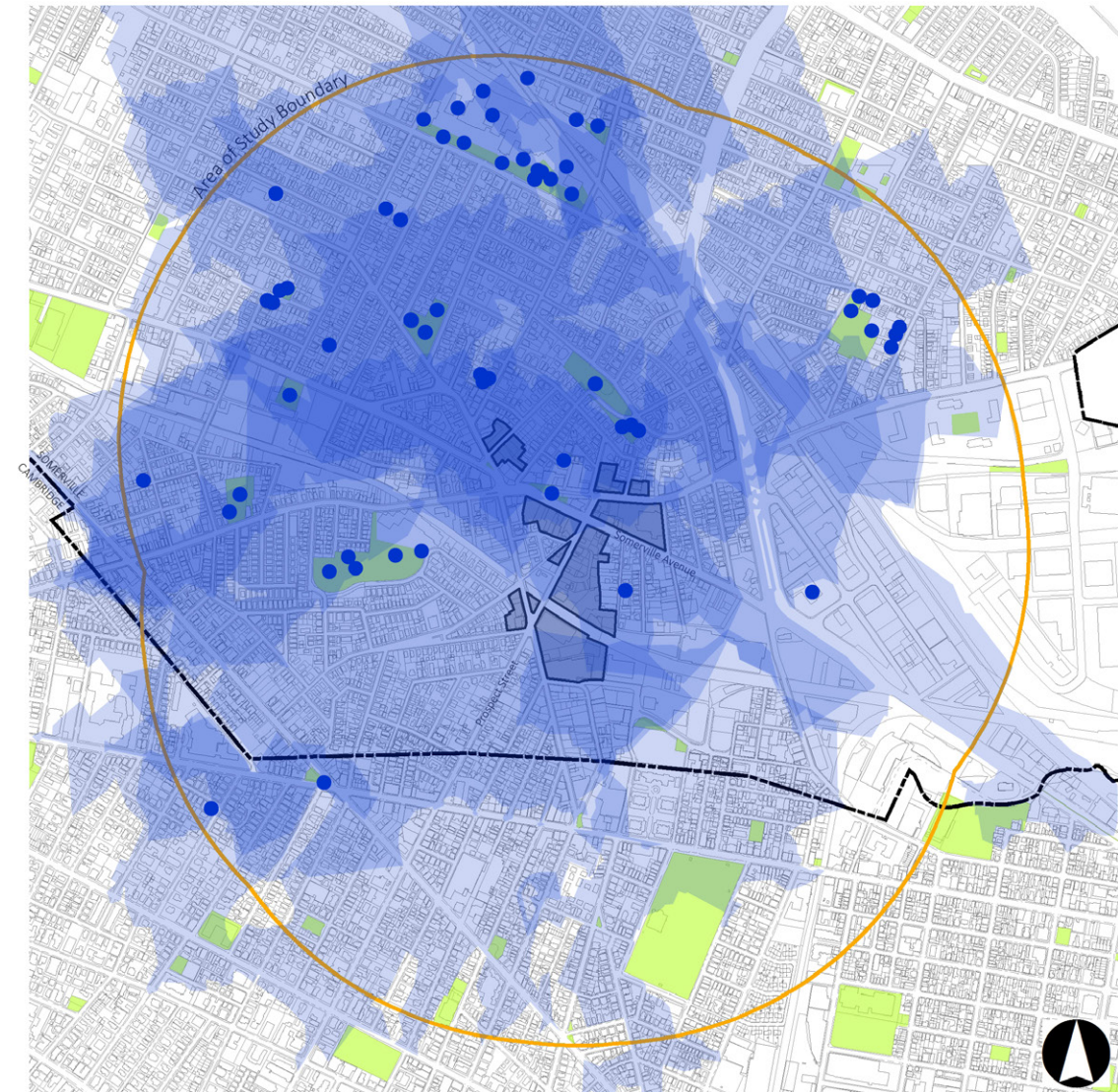
All walkshed data, including centroids and polygons, were received from the City of Somerville August 2017 and produced using ArcGIS.

TABLE 3.4: D BLOCK ACCESSIBILITY BY TYPE

	Central Plaza	Public Common	Community Park	Green	Neighborhood Park	Pocket Park
D1	●	○	●	○	●	●
D2	●	○	●	○	○	●
D3	●	○	●	○	●	●
D4	●	○	●	○	○	●
D5	●	●	●	○	●	●
D6	●	○	●	○	●	●
D7	●	●	●	○	●	●

- Entirely included in walkshed to civic space noted
- ◐ Partially included in walkshed to civic space noted
- Not included in walkshed to civic space noted

FIGURE 3.9: COMPOSITE WALKSHED



CIVIC SPACE OBSERVATION:

A large majority of the residents and workers in the study area can reasonably walk to one or more civic spaces. Residents and workers in the study area have best access to Central Plazas and Neighborhood Parks (> 50% coverage) and have least access to Pocket Parks (32% coverage) and Greens (3% coverage).

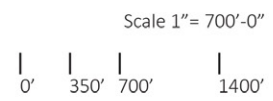
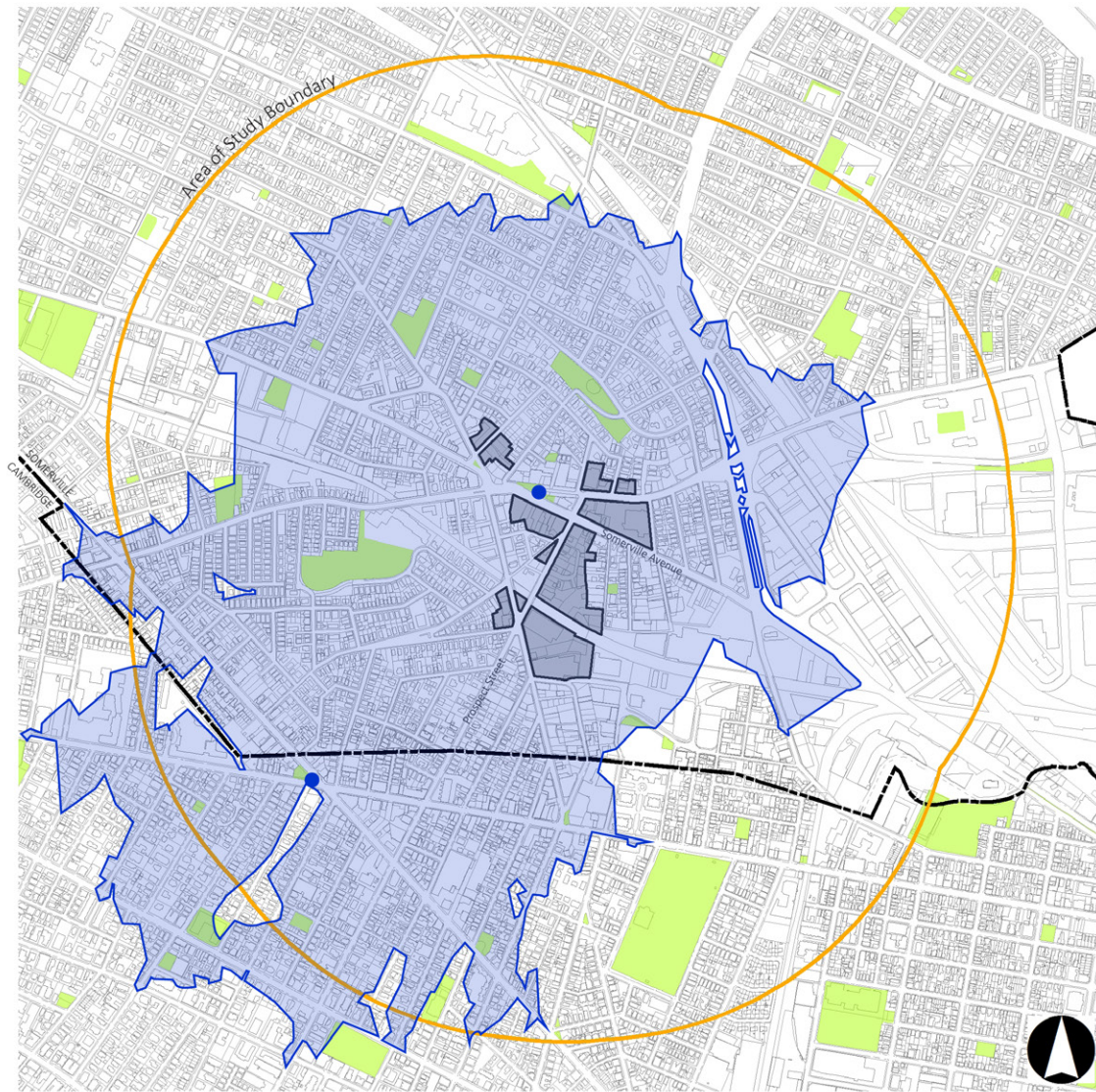


FIGURE 3.10: WALKSHED 1 – CENTRAL PLAZA

54% OF STUDY AREA SERVED



Central Plaza

- 5-minute Walkshed
- Civic Space Use Centroids

- Existing Civic Space
- Proposed Development
- Area of Study
- Somerville/Cambridge City Line

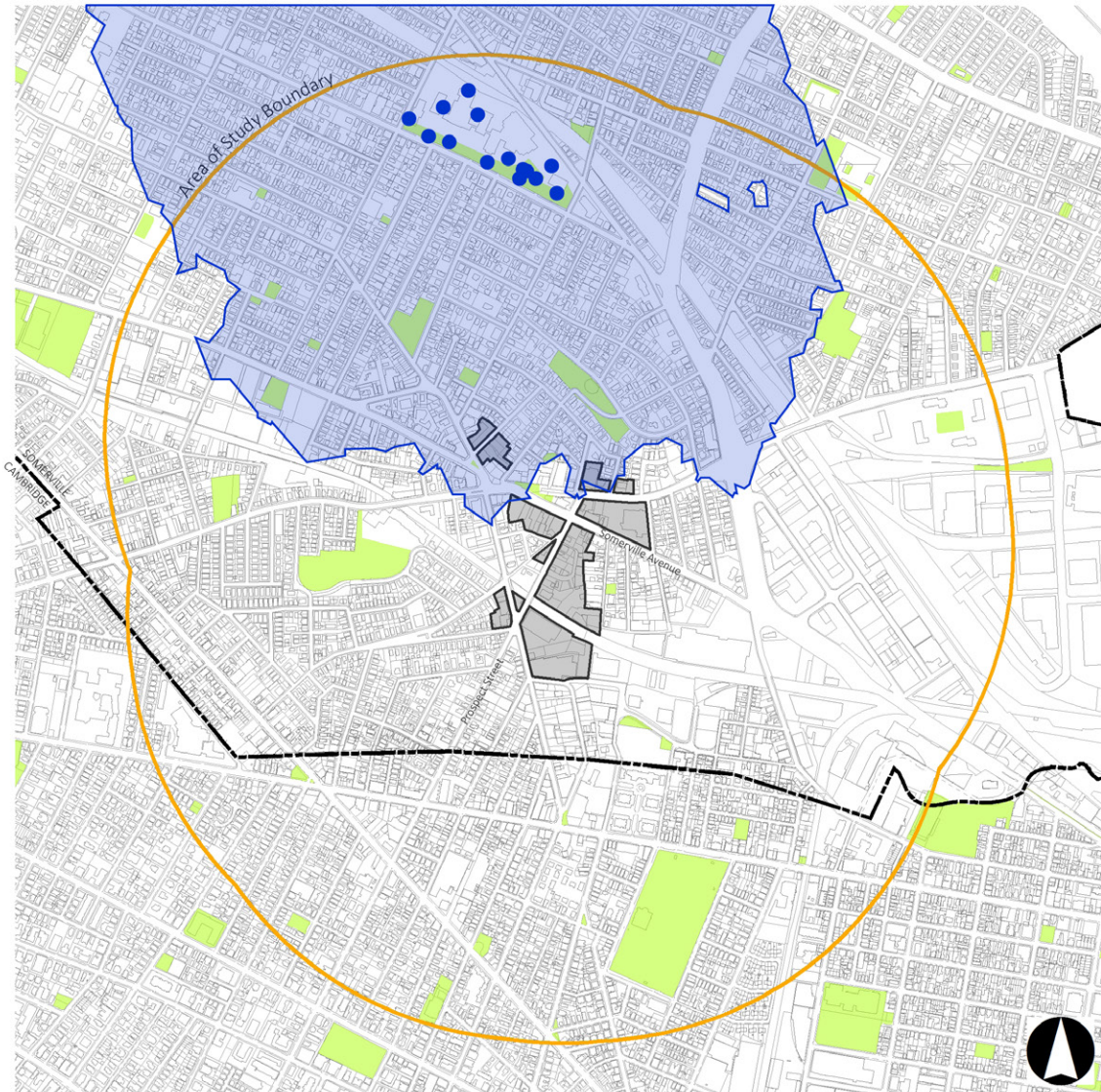
CIVIC SPACE OBSERVATION:

Slight majority of study has access to central plazas. All of the D Blocks are within a 5-minute walk of an existing Central Plaza.

Scale 1" = 700'-0"



FIGURE 3.11: WALKSHED 2 — PUBLIC COMMON
 31% OF STUDY AREA SERVED



Public Common

- 5-minute Walkshed
- Civic Space Use Centroids

- Existing Civic Space
- Proposed Development
- Area of Study
- Somerville/Cambridge City Line

CIVIC SPACE OBSERVATION:

Only the northern most D Blocks, D7 and D5, are within a 5-minute walk of a Public Common Space.

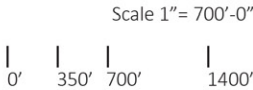
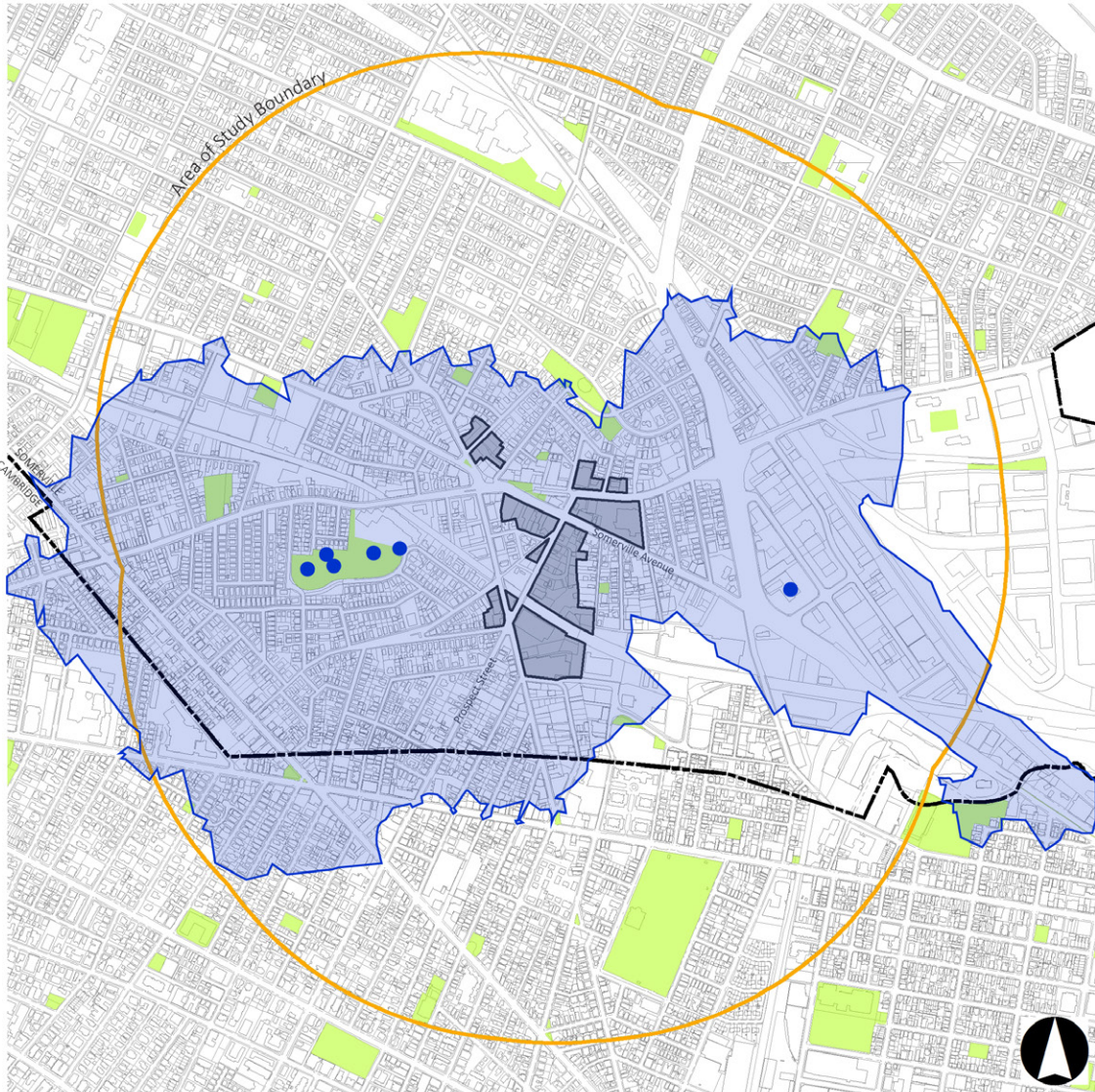


FIGURE 3.12: WALKSHED 6 — COMMUNITY PARKS
 47% OF STUDY AREA SERVED



Community Parks

- 5-minute Walkshed
- Civic Space Use Centroids

- Existing Civic Space
- Proposed Development
- Area of Study
- Somerville/Cambridge City Line

CIVIC SPACE OBSERVATION:

All of the D Blocks are within a 5-minute walk of an existing Community Park.

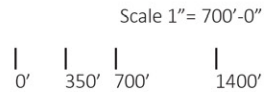


FIGURE 3.13: WALKSHED 3 – GREEN

3% OF STUDY AREA SERVED



Green

- 5-minute Walkshed
- Civic Space Use Centroids

- Existing Civic Space
- Proposed Development
- Area of Study
- Somerville/Cambridge City Line

CIVIC SPACE OBSERVATION:

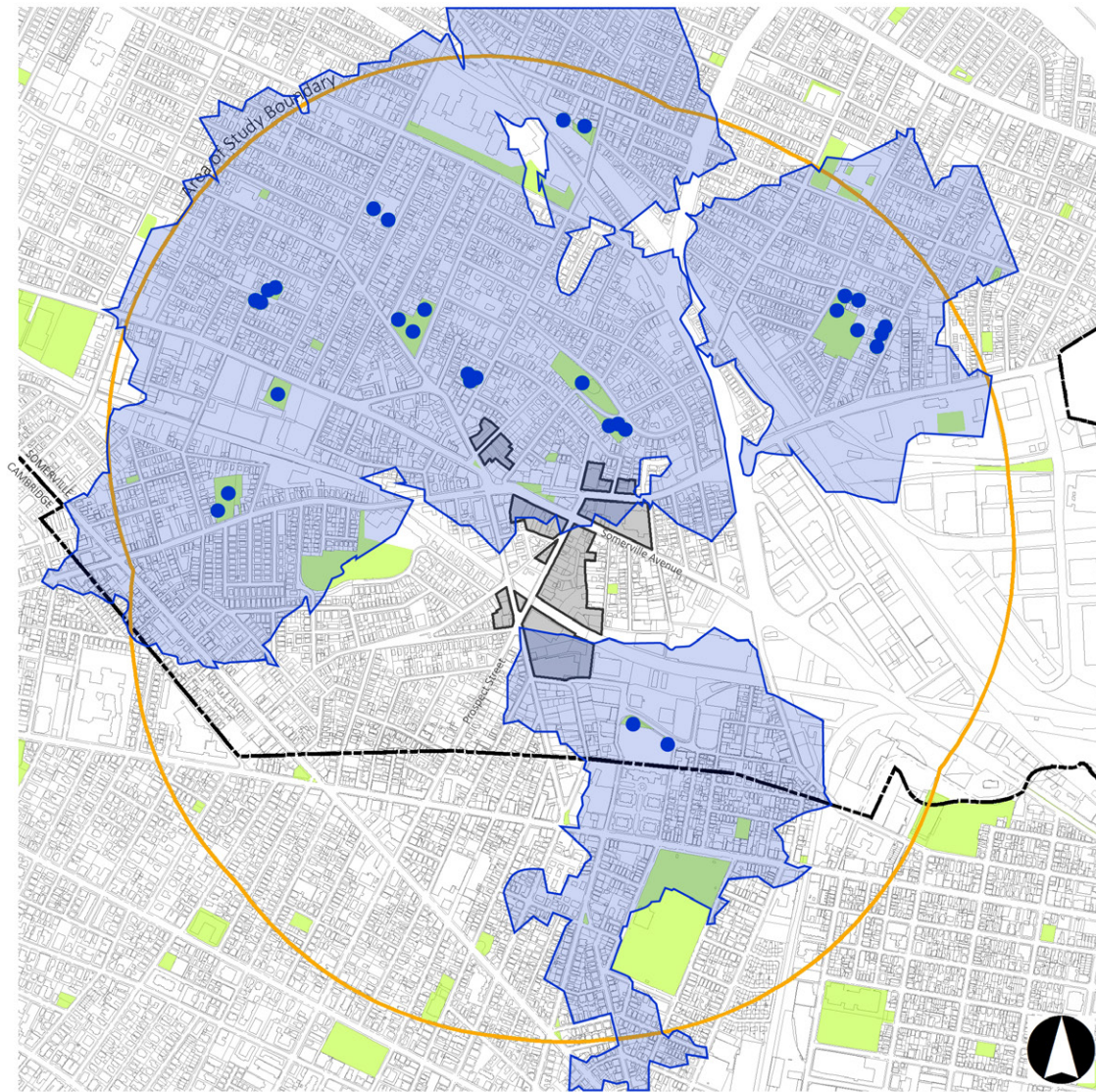
None of the D Blocks are within a 5-minute walk of a Green as defined by the Union Square Overlay.

Scale 1" = 700'-0"



FIGURE 3.14: WALKSHED 5 — NEIGHBORHOOD PARK

57% OF STUDY AREA SERVED



Neighborhood Parks

- 5-minute Walkshed
- Civic Space Use Centroids

- Existing Civic Space
- Proposed Development
- Area of Study
- Somerville/Cambridge City Line

CIVIC SPACE OBSERVATION:

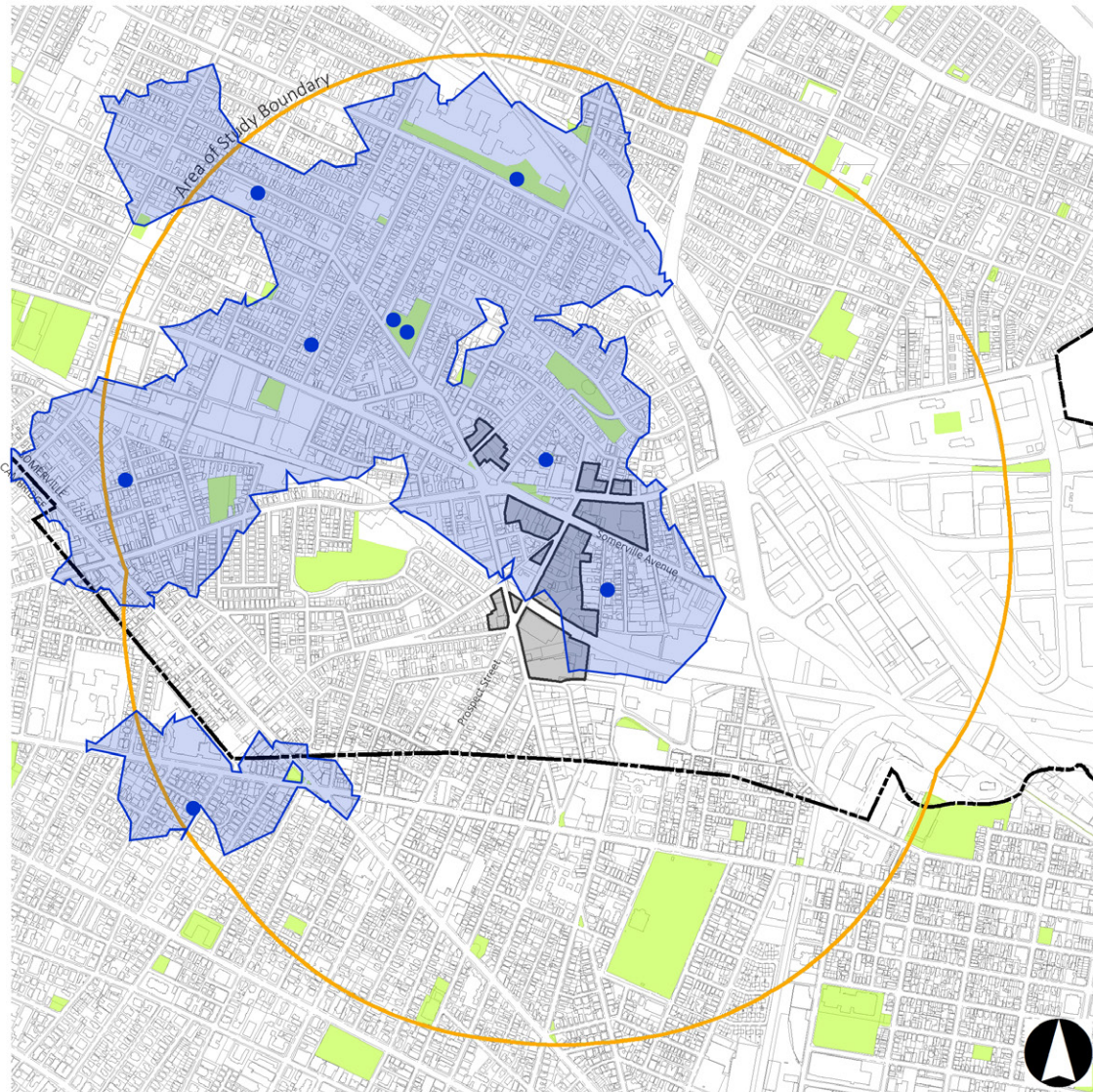
The central region of the study area, comprised of portions of D1, D2, D3 and D4, are not currently within a 5-minute walk of a Neighborhood Park.

Scale 1" = 700'-0"



FIGURE 3.15: WALKSHED 4 – POCKET PARKS

32% OF STUDY AREA SERVED



Pocket Parks

- 5-minute Walkshed
- Civic Space Use Centroids

- Existing Civic Space
- Proposed Development
- Area of Study
- Somerville/Cambridge City Line

CIVIC SPACE OBSERVATION:

With the exception of D4 and D3, all the D Blocks are within a 5-minute walk of Pocket Park.

Scale 1" = 700'-0"



DEMOGRAPHIC ANALYSIS

The study area was defined pursuant to the Civic Space Study requirements as a ½ mile from the center of the development site. Note that while the Study Area includes a portion of Cambridge for purposes of the civic space analysis, the underlying demographic data chosen only reflects the block groups located in Somerville.

DEMOGRAPHIC AND INCOME PROFILE

The demographic information in this Civic Space Study was obtained from the Environmental Research Systems Institute (Esri) geographic information system (GIS) software application. Esri presents the 2017/2022 demographic forecasts based on a variety of data sources including the most recent US Census Bureau data and surveys, the American Community Survey, the Internal Revenue Service migration data, building permit and housing start information, US Postal Service delivery count data and others. Esri’s forecasting methodology may differ depending on the particular demographic indicator and data sources that are available. A detailed explanation of Esri’s 2017/2022 Demographic Updates methodology can be found here: http://downloads.esri.com/esri_content_doc/dbl/us/J10268_Methodology_Statement_2017-2022_Esri_US_Demographic_Updates.pdf

POPULATION & HOUSEHOLD GROWTH

Population in the Study Area has grown 6% from 28,285 in 2010 to 29,981 in 2017, at an average rate of 0.81% annually. The population is forecast to grow 4.34% to 31,283 by 2022, a rate of 0.85% annually. This represents a turnaround from the population decline of -3.5% from 2000 to 2010. Similarly, household growth has steadily increased 5% from 12,635 since 2010 to 13,254 in 2017, at an average rate of 0.65% a year. The number of households is forecast to increase by 4.16% to 13,806 by 2022, at an average annual rate of 0.82%, much faster than the 0.13% annual growth rate in households from 2000 to 2010.

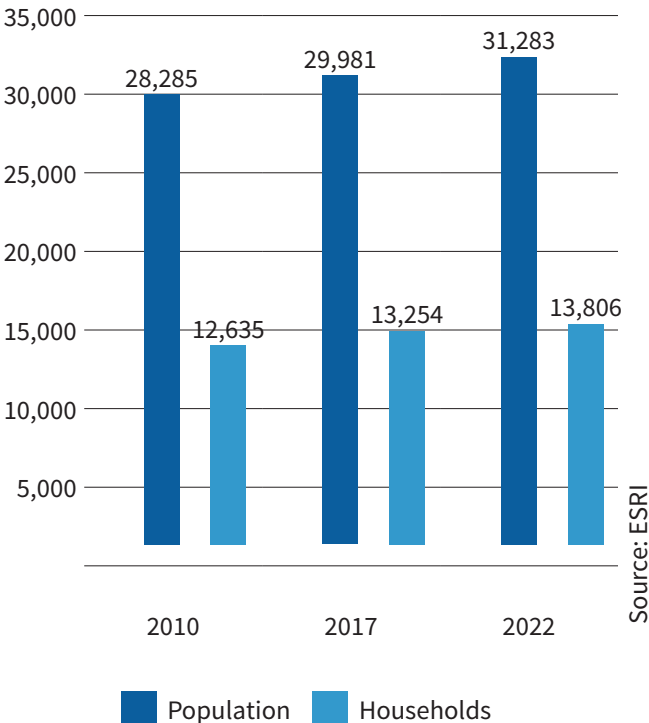
In the Study Area, the current year population is 29,981. In 2010, the Census count in the area was 28,285. The rate of change since 2010 was 0.81% annually. The five-year projection for the population in the area is 31,283 representing a change of 0.85% annually from 2017 to 2022.

The household count in this Study Area has changed from 12,635 in 2010 to 13,254 in the current year, a change of 0.66% annually. The five-year projection of households is 13,806, a change of 0.82% annually from the current year total. Average household size is currently 2.25, compared to 2.22 in the year 2010. The number of families in the current year is 5,464 in the specified area.

CIVIC SPACE OBSERVATION:

An increasing population and household income number will increase demand for civic and open spaces as the development evolves.

FIGURE 3.16: INCREASING POPULATION & HOUSEHOLDS



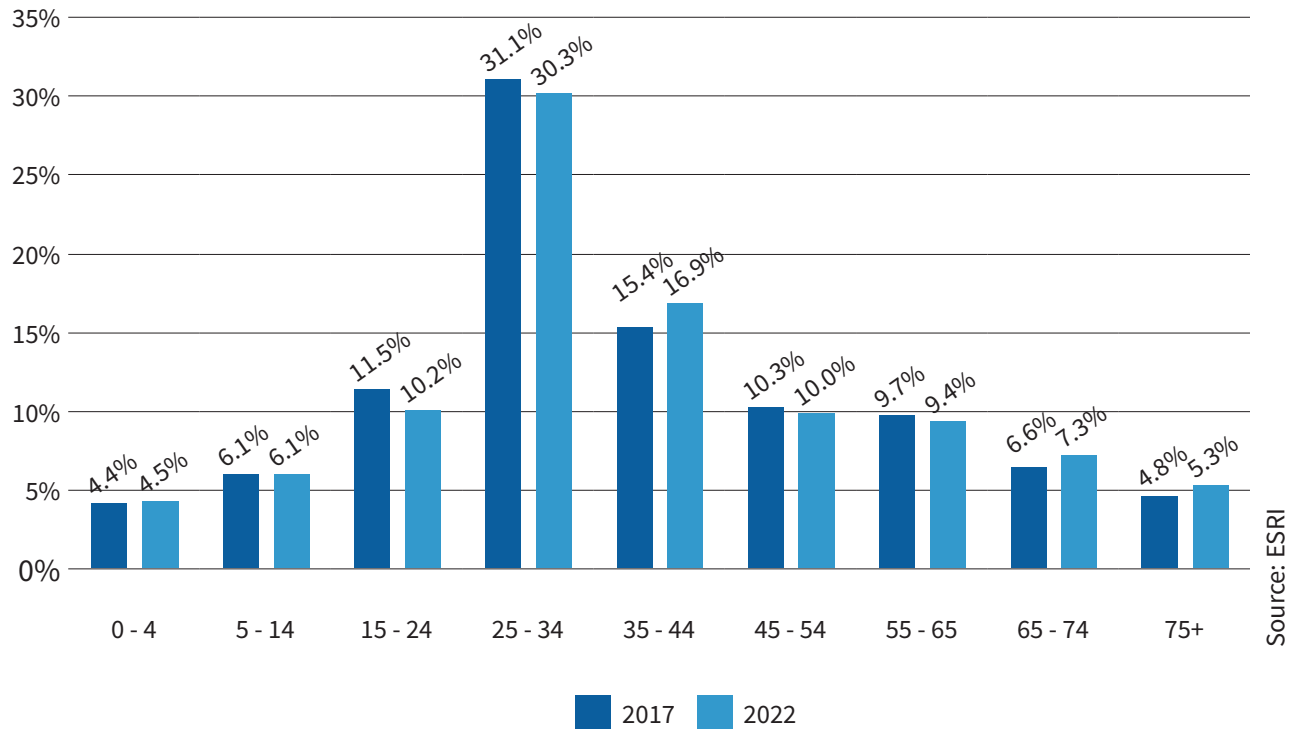
AGE

The population age breakdown within the Study Area for the current year 2017 and the forecast year 2022 are very similar, with Millennials comprising a significant segment. Nearly 1 in every 3 people falls into the 25- to 34-year-old group (31% for 2017). The median age is 33.9 years. By 2022, this dynamic stays fairly unchanged with 30% of the study area population in this age group and a slight uptick projected in the percentage of 35- to 44-year-olds from 15.4% to 16.9% as the Millennials grow older. Additionally, the 65 and older population is forecast to increase from 11.4% to 12.6%, respectively.

TABLE 3.5: TOTAL POPULATION BY AGE

	2017	PERCENT	2022	PERCENT
0 - 4	1,334	4.4%	1,396	4.5%
5 - 9	1,000	3.3%	997	3.2%
10 - 14	854	2.8%	903	2.9%
15 - 19	885	3.0%	882	2.8%
20 - 24	2,555	8.5%	2,309	7.4%
25 - 29	5,033	16.8%	4,806	15.4%
30 - 34	4,273	14.3%	4,673	14.9%
35 - 39	2,790	9.3%	3,160	10.1%
40 - 44	1,839	6.1%	2,134	6.8%
45 - 49	1,574	5.3%	1,618	5.2%
50 - 54	1,508	5.0%	1,503	4.8%
55 - 59	1,472	4.9%	1,437	4.6%
60 - 64	1,429	4.8%	1,517	4.8%
65 - 69	1,145	3.8%	1,238	4.0%
70 - 74	848	2.8%	1,038	3.3%
75 - 79	601	2.0%	752	2.4%
80 - 84	407	1.4%	481	1.5%
85+	432	1.4%	440	1.4%

FIGURE 3.17: INCREASING POPULATION & HOUSEHOLDS



CIVIC SPACE OBSERVATION:

Civic spaces should serve a diverse range of ages from small children to the elderly. The civic space needs of the largest groups ages 25-29 and ages 30-34 should be considered. And the needs of the expanding elderly population should be considered.

INCOME

Median Household Income in the Study Area is approximately at \$63,000 for 2017 and projected to increase to \$78,600 by 2022 (on a nominal basis, unadjusted for inflation). Household income distribution reveals an economically diverse group but with a significant 41% of the study area households earning less than \$50,000 or 80% of the Study Area Median Household Income. A solid 32% of study area households earns more than \$100,000, including those in the \$200,000+ income bracket. The remaining 27% are moderate-income households earning between \$50,000 and \$100,000. The wide range reflects the differences in neighborhoods captured by the study area, which extends from East Somerville and Boynton Yards, areas that have experienced significant disinvestment over the last half century or so, to Prospect Hill and Spring Hill which have some of the higher household incomes of all Somerville neighborhoods.

FIGURE 3.18: HOUSEHOLD INCOME DISTRIBUTION

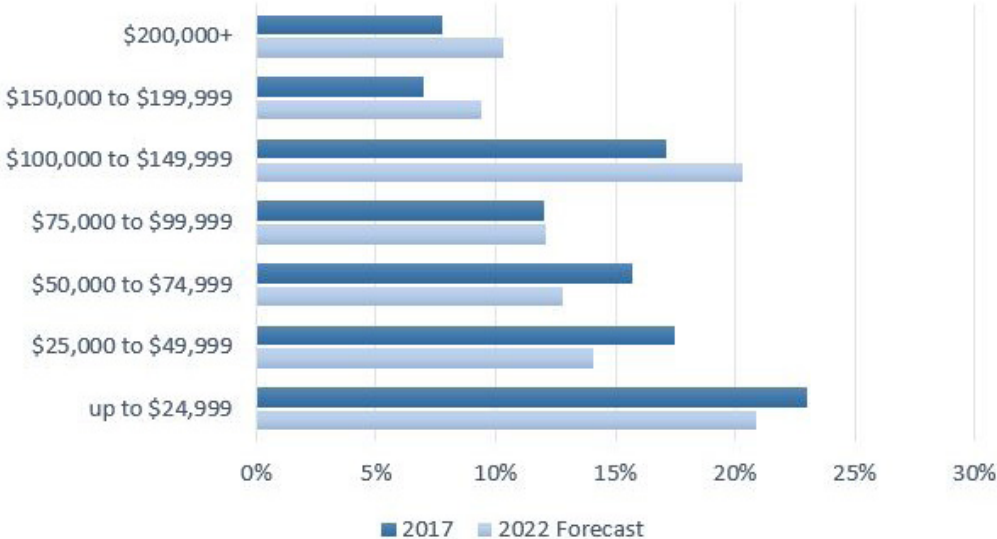
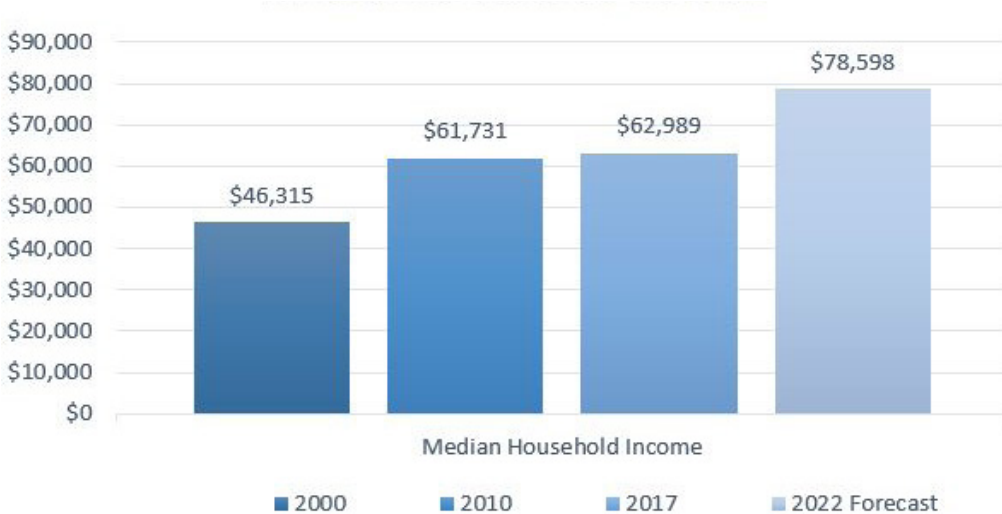


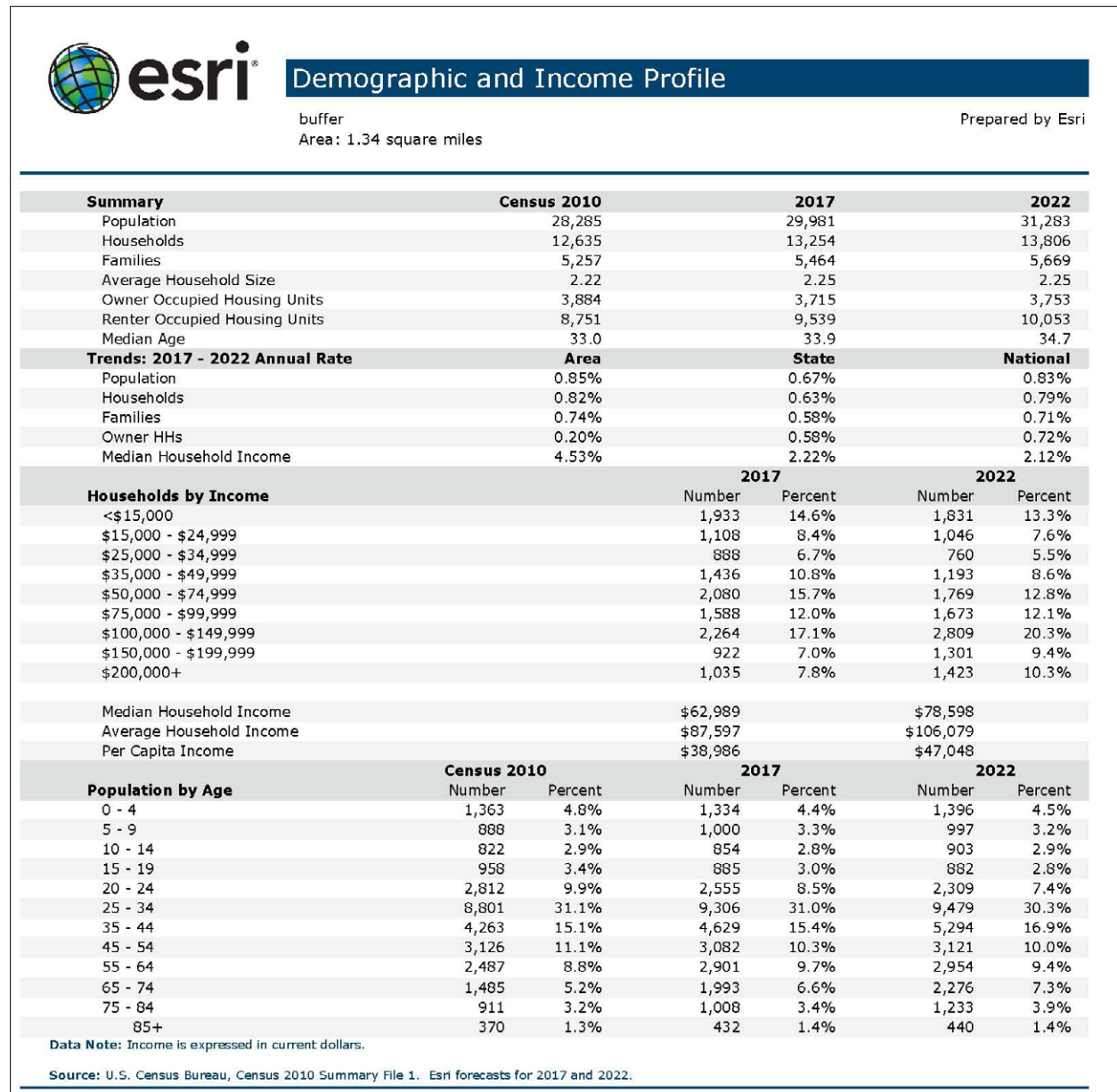
FIGURE 3.19: MEDIAN HOUSEHOLD INCOME



CIVIC SPACE OBSERVATION:

The Study Area is economically diverse. Civic space locations should be sited and distributed geographically in order to best serve the range of economic groups.

FIGURE 3.20: STUDY AREA DEMOGRAPHIC AND INCOME PROFILE



SOCIAL EQUITY

The following Environmental Justice (EJ) data, dated December 2012, was accessed from MassGIS in August, 2017. Polygons in the EJ data represent areas with high minority, non-English speaking, and/or low-income populations. Data in this layer were compiled for Census 2010 block groups from the 2010 census redistricting tables and from the American Community Survey (ACS) 2006-2010 5-year estimates tables. The Statewide EJ polygons were clipped to the ½-mile study area buffer in the following maps.

Block Groups were identified as EJ neighborhoods using the following three criteria:

PERCENT MINORITY POPULATION

From the Census 2010, non-minority is defined as “not Hispanic, white alone”. The threshold for the EJ criteria is any Block Group with a percent minority greater than or equal to 25%.

ENGLISH LANGUAGE ISOLATION

Linguistic isolation was used as an indicator of limited English language. A household in which no person 14 years old and over speaks only English and no person 14 years old and over who speaks a language other than English speaks English “Very well” is classified as “linguistically isolated.” In other words, a household in which all members 14 years old and over speak a non-English language and also speak English less than “Very well” (have difficulty with English) is “linguistically isolated.”

Data from the ACS 2006-2010 estimates tables indicate households in which no one 14 and over speaks English only or speaks a language other than English

at home and speaks English “very well”. Any Block Group with 25% or more of all households identified as English-isolated was included as an EJ population.

INCOME

Median household income (in the past 12 months) data is from ACS 2006-2010 estimates. Any Block Group with a median household income in 2010 less than or equal to \$40,673 was included as an EJ population.

OVERALL EJ POPULATION IN THE STUDY AREA

Figure 3.24 on the following page provides a composite overview of the environmental justice populations within the study area. It should be noted that this data is from 2010 and has likely changed over time. Similarly, future changes to areas identified for development will also likely have an influence on environmental justice boundaries. Depicted on the pages that follow are best representations of the existing condition of the study area provided the data made available by the State of Massachusetts. In Summary:

- The study area includes minority, income, and English isolation EJ population block groups.
- The study area includes block groups that have multiple EJ criteria (minority and income).
- The study area includes block groups that have all three EJ criteria.

PERCENT MINORITY POPULATION IN THE STUDY AREA

To understand the intensity of the EJ criteria, percent minority population was mapped per block group. See Figure 3.25.

- Block groups with minority populations less than 25% have been excluded because they do not meet the EJ threshold.
- Block groups with the highest minority populations are centered around center of the study area (Boyton Yards area), East Somerville (north of McGrath Highway and Washington Street), and in Cambridge southeast of the intersection of Hampshire Street and Columbia Street.

PERCENT ENGLISH LANGUAGE ISOLATION IN THE STUDY AREA

To understand the intensity of the EJ criteria, percent English language isolated households was mapped per block group. See Figure 3.26.

- Block groups with households with less than 25% English language isolation have been excluded because they do not meet the EJ threshold.
- Two block groups are linguistically isolated in East Cambridge, respectively 54.5% and 25.4% households without English proficiency.

MEDIAN HOUSEHOLD INCOME IN THE STUDY AREA

To understand the intensity of the EJ criteria, median household income was mapped per block group. See Figure 3.27.

- Block groups with median household income greater than \$40,673 have been excluded because they do not meet the EJ threshold.
- Block groups with the lowest median income are in the Inner Belt (east of McGrath Highway) and in Cambridge north of Cambridge Street between Prospect Street and Willow Street.

FIGURE 3.21: ENVIRONMENTAL JUSTICE MAP – OVERALL



Environmental Justice neighborhoods

- Minority
- Income
- Minority and Income
- Minority, Income, and English Isolation

- Existing Civic Space
- Proposed Development
- Area of Study
- Somerville/Cambridge City Line

CIVIC SPACE OBSERVATION:

A large portion of the Study Area includes environmental justice populations, especially the east-side of the Study Area. Civic spaces located on any of the D blocks, except for D7, would be located in an area directly serving Environmental Justice populations.

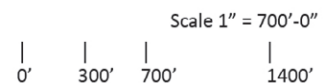
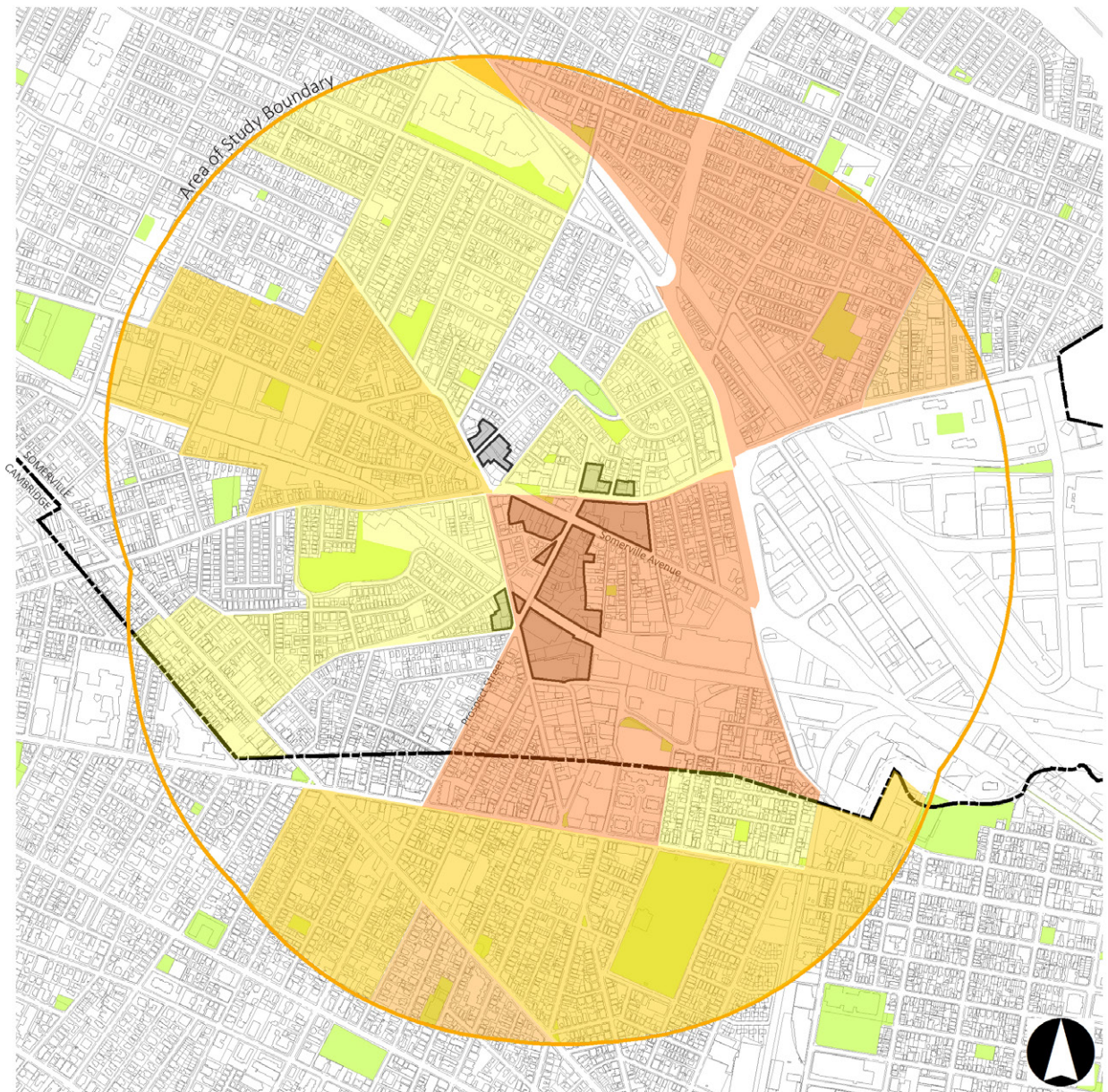


FIGURE 3.22: ENVIRONMENTAL JUSTICE MAP — RACE



Minority Population (other than non-hispanic white)

- 25%-30%
- 30%-40%
- 40%-50%
- 50%-80%

- Existing Civic Space
- Proposed Development
- Area of Study
- Somerville/Cambridge City Line

CIVIC SPACE OBSERVATION:

All of the D Block parcels, except for D7, are in areas with a percent minority greater than or equal to 25% and Blocks D1, D2 and D3 are in areas where the percent minority is greater than 50%.

Scale 1"= 700'-0"

FIGURE 3.23: ENVIRONMENTAL JUSTICE MAP — LANGUAGE



Median Household Income

- \$38,000 - \$40,673
- \$28,000 - \$38,000
- \$20,000 - \$28,000
- \$15,000 - \$20,000

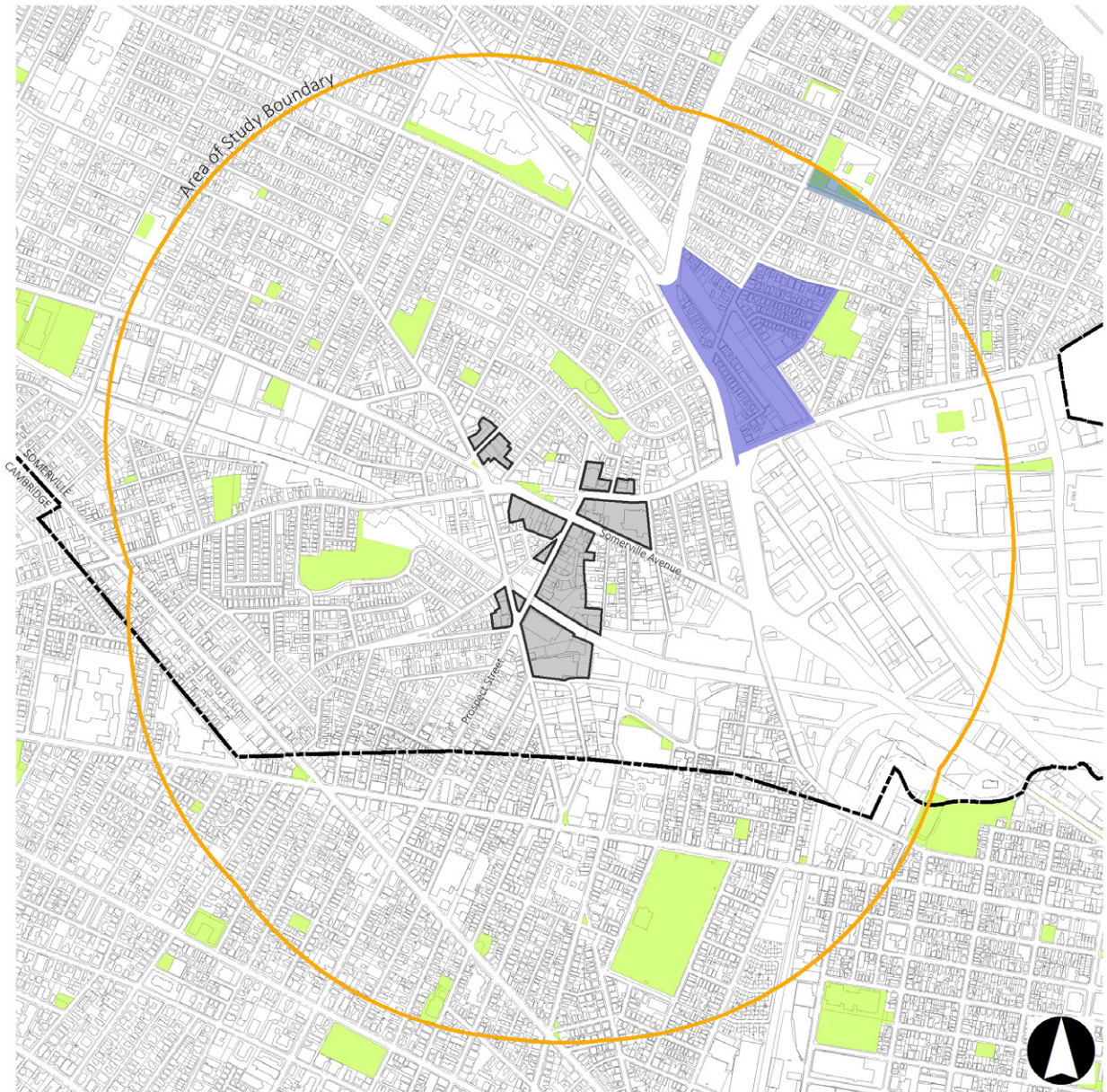
- Existing Civic Space
- Proposed Development
- Area of Study
- Somerville/Cambridge City Line

CIVIC SPACE OBSERVATION:

The D Blocks are primarily surrounded by households with English proficiency.

Scale 1" = 700'-0"

FIGURE 3.24: ENVIRONMENTAL JUSTICE MAP — INCOME



Households without English Proficiency

- 25.4%
- 54.5%

- Existing Civic Space
- Proposed Development
- Area of Study
- Somerville/Cambridge City Line

CIVIC SPACE OBSERVATION:

The D Blocks are not located in areas that qualify as Environmental Justice areas due to income levels. However, areas northeast of D1, and D5 and south of D3 meet the Environmental Justice criteria for income.

Scale 1"= 700'-0"

NEEDS ASSESSMENT

To assess need, civic space and open space discussions from preceding planning processes in Somerville and Union Square were reviewed and distilled. A summary is outlined on the table that follows. Common themes among the various documents are identified by the colored dots next to each item.

TABLE 3.6: IDENTIFIED CITYWIDE CIVIC SPACE NEEDS

OPEN SPACE AND RECREATION PLAN (OSRP), SOMERVILLE BY DESIGN	
● Playgrounds	Somerville currently has 36 playgrounds, a number of which have been recently constructed or upgraded. The quantity and distribution of playgrounds results in the vast majority of households being within a five minute walk of a playground.
● Performance Space	The arts play an important and vital role in the city's identity and public open space.
Increased Open Space	Increase Somerville's network of open space and recreational resources, identifying neighborhoods underserved by open space so as to develop a strategic plan to to acquire land and construct new parks to serve them.
● Community Gardens	There are 11 community gardens in Somerville, all of which are at capacity. Currently, the waiting list has over 200 residents on it, indicating a need for additional lots and/ or a greater optimization and efficiency of the current lots.
ADA Compliance	Continue to make Somerville's parks more accessible, assuring compliance with ADA laws and incorporating tenets of universal design.
Athletic Fields	Playing Fields are included on 10 properties in Somerville. Currently all the fields are booked to capacity and outweigh the demand however none of the civic spaces in the development are of a sufficient scale for sports fields.
Schoolyards	The city has recently placed an importance on building better play and learning environments adjacent to schools.
Parks Programming for Health and Fitness	Provide opportunities for residents of all ages to enjoy the benefits of physical activity, while balancing the need for unprogrammed recreation as well.
● Accessible Space and Space for Seniors	It is important that the elderly populations of the city are served by including programs such as walking, sitting, yoga, Tai Chi, socializing and dancing in open spaces.
SOMERVISION, CITY OF SOMERVILLE	
● Multi-Cultural and Multi-Functional	Create a network of vibrant public open spaces and shared use paths throughout the city that are multi-purpose, promote healthy living, and reflect changing recreational interests and cultural opportunities.
● Ecological Green Infrastructure	Open spaces within the City of Somerville should use green technologies and methods that increase permeability, reduce energy costs and conserve public resources.
● Art Based	Promote and recognize Somerville as a center of arts and creativity. Place an emphasis on supporting local art and cultural institutions so that they succeed, network and grow. Introduce a mix of spaces for creative production, performance and exhibition.

LEGEND

- Urban agriculture/community gardens
- Pedestrian experience
- Senior oriented
- Arts and creativity
- Community involvement
- Sustainability

● Transit Oriented Design	Transform key opportunity areas associated with the new Greenline stops into dynamic, mixed use transit oriented districts that serve as economic engines to compliment the neighborhoods of Somerville.
● Pedestrian Oriented Design	It is important for public spaces to be pedestrian oriented, making it easy and safe for pedestrians to circulate.
● Community Gardens and Urban Agriculture	There should be increased opportunities for urban agriculture, including safe soil quality, public greenhouse for year-round gardens and adding or rehabilitating existing community gardens.
Desired Character	It is a goal to design and maintain a healthy and attractive public realm that fosters community connection, including streets, sidewalks and other public spaces.

NEIGHBORHOOD PLAN, SOMERVILLE BY DESIGN

● Arts/Creativity	Somerville's creative and art based economy is a core part of the community identity. It is important to foster Union Square's identity as a place for creativity enterprises and individuals. Create spaces for them to think, create, publish, perform, sell and teach.
● Urban Agriculture	Food is already an essential part of the existing character of Union Square. By encouraging a wider variety of growing options for gardeners and farmers, Union Square can truly embrace agriculture as part of everyday life.
● Public Involvement	It is important to involve community members in a collaborative process on the review of development projects.
● Pedestrian Experience	Somerville's culture unfolds on a daily basis on the sidewalk and public spaces, therefore, it is important to improve pedestrian streets for increased activity. Provide seating, benches, parklets, and outdoor cafes to add to the unique character and enhance the public life.
● Space for Seniors	Seniors are an increasing population in Somerville and spaces should be designed to be aging friendly.
Neighborhood Park	The plan cited the neighborhood park on the D4.3 block.
Plaza	The plan cited the plaza on the D2 block approaching the MBTA station.

UNION SQUARE ZONING

● Open Space Area	At full build out, 25% of the development site, excluding alleys and any land occupied by the MBTA GLX station must be improved as: at least 70% civic space and up to 30% public realm improvements.
Civic space types	Two or more civic spaces must be provided of different types, sizes, and locations.
Civic space types	At least one neighborhood park of at least 27,000 SF and one plaza.
● Green civic space	25% of the cumulative land area provided as civic space must be green space.
● Green civic space	50% of the cumulative land area provided as civic space must be green space or covered by tree canopy at full maturity.
Payment in lieu	Planning Board may permit an in lieu payment for up to 10% of the required amount of civic space.
● Civic Space Design	Each civic space must be reviewed as part of a public design and site plan review process.
Civic space standards	Each civic space type must conform to design standards related to size, seating, number of trees, previous area and green space.

LEGEND

- Urban agriculture/community gardens
- Pedestrian experience
- Senior oriented
- Arts and creativity
- Community involvement
- Sustainability

CITY DEPARTMENT FEEDBACK

The feedback from multiple city departments provided another factor in determining the open space needs in Union Square. Conversations with the Office of Sustainability and Environment helped frame our approach through the lens of resiliency, while the Parks and Recreation as well as Parks and Open Space Departments outlined unmet needs, providing aspirations for continuing to grow the inventory of rectangular field sites throughout Somerville.

The collective feedback from these departments, sustained engagement with the community, as well as our continuous interaction with the planning department through the Neighborhood Planning process and subsequent adoption of zoning has been instrumental in informing the approach to open space. Assessing Somerville's present needs while simultaneously contextualizing them towards a more sustainable future has served to reinforce the direction outlined within this application and will inform the design and programming of these spaces that is yet to come.

OFFICE OF SUSTAINABILITY AND ENVIRONMENT

Oliver Sellers-Garcia, Director of the Office of Sustainability and Environment, and Hannah Payne, Sustainability Coordinator provided unique insight into the needs for open space in Union Square. They described unmet needs in Union Square as similar to the needs for the greater city, considering the density of buildings inherently limits the supply of open space.

The city has engaged in significant research to prioritize resiliency, creating "SustainaVille", the city's resource for programs and initiatives to reduce Somerville's contribution to climate change and to

develop the city's ability to prepare for the impacts of climate change. In light of their research, Mr. Sellers Garcia offered that open spaces could be considered in two ways – as assets that need to be protected and as part of the solution. He described the performative role of open spaces as an important one, explaining the need for open spaces to perform as much of a cooling function as possible to combat rising temperatures. Ms. Payne offered that the inclusion of more vegetation, more trees and their provision of additional shade serves to reduce the heat island effect that affects comfort in dense urban areas like Somerville.

One of the initiatives of "SustainaVille", the 'Climate Change Vulnerability Assessment' from June 2017 was particularly useful in identifying challenges specific to Union Square's open spaces. The low-lying nature of the area was noted as at risk for flooding, a risk Ms. Payne said the OSPCD had done a great job of addressing through the storm water management potential in open spaces. This duality of purpose was a point Mr. Sellers-Garcia expanded on by explaining Somerville Climate Forward will make sure we think about how we treat every square foot. The city understands the priority that the community has placed on Open Space and increased vegetation. The goal of SomerVision to increase space, is not where the city intends to stop. Instead, the pursuit is for the maximization of the utility of these spaces, wherever they may be. This interest is protected in the midst of competing desires for the functional programming of these spaces in that the implementation of sustainable strategies are not in conflict with how the space may be used. Instead, sustainability and climate goals coexist with programming efforts to maximize benefits for all.

DEPARTMENT OF PARKS AND RECREATION

Jill Lathan, Director of the Department of Parks and Recreation also provided her perception of present unmet needs in Union Square. She too identified the need for spaces that can fulfill multiple roles, highlighting above all else the need for spaces to accommodate larger, recreational uses. Ms. Lathan was thankful for the recent opening of a new under-8 turf field but insists on the need to continue to grow the city's inventory of recreational spaces, especially for older youth. Understanding constraints on available land for uses of this scale, Mr. Lathan saw the constraint as an opportunity to think outside the box on how the need is fulfilled.

Beyond larger fields, she saw a need to develop recreational opportunities within smaller spaces. Pocket parks or other spaces that are largely often passive, still have the opportunity to incorporate active uses, whether they take the shape of bocce ball courts, horse-shoes, or other varieties of active programming.

DEPARTMENT OF PARKS AND OPEN SPACE

When it comes to open space needs, Arn Franzen, Director of Parks, echoed the sentiment heard from other departments: "the city fights for every square foot of space we can get." By extension, he acknowledged the very real need for fields, and subsequently the difficulty in accommodating their large size. In conversation with Mr. Franzen, it was apparent this identified need was a byproduct of the high utility rate the existing fields receive.

Put another way, successful open spaces were utilized, and useful open spaces. Beyond a space's typology, he spoke to the complex relationship between priorities for open spaces. More specifically, while design should be of the highest priority, even the most beautifully designed park could be deemed unsuccessful if it was never used. While acknowledging there are no guarantees, Mr. Franzen, like Jill Lathan and Oliver Sellers-Garcia elevated the need for varied programming to promote utility. The creation of social, passive, and active spaces together within a park or open space provide the requisite opportunities for a broad user base.

This broad user base was one Mr. Franzen referenced again when highlighting the critical role the community process plays in defining spaces. He cited both the challenge and necessity to consider all user groups even if their voices were unheard. He mentioned the difficulty and responsibility to think about community members that are absent from meetings, specifically referencing, the 0-5 age group, teens, seniors, and the low-income communities who may be unable to actively participate.

In summary, Mr. Franzen understands the challenges in fulfilling a broad range of user needs but sees them within the context of opportunity- opportunity for Somerville to lead and set a high bar for other communities to follow. "Fulfilling multiple objectives should not be a 'reach' – but the expectation.

FINDINGS FROM EXISTING CONDITIONS ANALYSIS

The existing condition analysis study revealed the following considerations that inform our planning and design approach for civic spaces:

CIVIC SPACE TYPE NEEDS

- Residents and workers in the study area are best served by Central Plazas and Neighborhood Parks (over 50% of the study area has walkable access).
- Residents and workers in the study area are least served by Pocket Parks and Greens (less than a third of the study area has walkable access) that can provide moments of repose close to home and work.
- Passive areas, playgrounds and community gardens are the most common landscape use types.
- Civic spaces should serve a diverse range of ages from small children to the elderly.
- The civic space needs of the largest groups ages 25-29 and ages 30-34 should be considered.
- Spaces for seniors are viewed as important as that population is projected to grow.

CIVIC SPACE LOCATIONS NEEDS

- As the neighborhood evolves into an employment center and 2.4 million square feet of development are added, new patterns of movement will evolve and the civic space plan should anticipate future demand.
- The eastern portion of the neighborhood does not have the same level of accessibility to diverse civic space types as the northern and western regions of the study area.
- Strategically planned civic spaces types on D1, D2, and D4 would improve the current accessibility levels from these blocks.
- D7 is within a five minute walk of five of the six subtypes captured within the study area.
- Civic spaces located on any of the D Blocks, except for D7, would be located in an area directly serving Environmental Justice populations as defined by most recent census data.

COMMUNITY FEEDBACK

US2 hosted two neighborhood meetings for the CDP and the development team received many comments about open space, some of which coalesced, while other expressed differing views from each other. The feedback received was reviewed and considered as the CDP proposal provided herein was prepared. An overview of the two meetings is provided below and additional details about the neighborhood meetings are provided in Appendix 2.

On September 5, 2017, US2 hosted a CDP Neighborhood Meeting as required by the Union Square Zoning. The neighborhood meeting was open to the public and was held at the City of Somerville Public Safety Building. Local residents, business people, property owners and other community stakeholders were notified of the meeting via newspaper advertisements, mailings, emails, posters and hand delivered flyers as required by ordinance.

Over 140 people attended. Fourteen members of the US2 development team representing development, urban design, landscape architecture, transportation, community engagement and economic development were present to describe the project, discuss CDP details, respond to questions and solicit feedback.

The meeting presentation included the following topics related to the Union Square Revitalization project: project overview, process overview, employment center, community benefits, urban design, existing civic space, open space, transportation and infrastructure improvements. Participants were asked to offer specific feedback related to the topics and were also invited to participate in an interactive exercise regarding civic space type preferences and walking desire paths. As they departed, each attendee was asked to complete an exit survey.



It was a well-attended event and the development team received many comments regarding civic space. In general there was strong interest in open space and a fairly consistent desire for green planted spaces and “urban oasis” over hard spaces. One potential exception to this was the plaza area at D2 connecting to the future Green Line stop; however, there were voices that expressed a desire for this to be greener as well. There was also a lot of interest in the sustainable measures of the civic spaces and connective public realm streetscape, expressing a desire for substantial tree canopy, good growing conditions, and plant species diversity.

In addition to the feeling of green, the “arts-directed” expression of many of the example images were well received as a way to reflect the unique character of Union Square, referencing the Fluff Festival, Porch Fest and the like.

Some people liked the distribution of spaces across the development area, however others expressed a desire to have it consolidated. Many people liked and encouraged the creation of informal and formal connections between the various civic spaces. Many people had trouble understanding the size of the open space parcels, wondering if they were too small. To help address this understanding, a set of diagrams that compares the size of the proposed civic spaces to existing Somerville spaces is included the Development Proposal section of the application.

There was a variety of opinions about whether civic spaces should be located on the street side of the development parcels or tucked behind them. The street side was favored due to its active public qualities, making it more used and thus more safe; the quieter locations were favored as a place to step away from the activity of the street and relax. While it was expressed that there was a need for playing fields in the area, it seemed generally understood

that these could not fit on the D Blocks and alternative future sites might be made available by the City of Somerville.

Considerable discussion at the open house centered on the location of the neighborhood park. The original location suggested in the Neighborhood Plan was on D4.3. After community feedback during the zoning process to consider other locations, US2 considered D1 and D7 as potential locations. Upon further analysis and considering a variety of factors, the D1 location emerged as the preferred location so it was presented at the meeting. D4.3 was only mentioned as a preference by one or two participants in the neighborhood meeting; however, there was divided opinions as to whether D1.2 or D7.2 would be a better location for this neighborhood amenity.

The interactive exercise regarding civic space type preferences and walking desire paths or “pin exercise” showed strong support for both locations. D1.2 received the most pins indicating support for a civic space at this location with a majority indicating that a neighborhood park or green type would be preferable. Similarly, D7.2 received the second most pins and the large majority of those pins also favored the neighborhood park use.

The post it notes and verbal comments were also split with support for both locations (“D1.2 park – best idea ever”, “D7 = perfect spot for neighborhood park”). Some attendees indicated D7.2 as a more certain success due to its proximity to existing travels patterns and other civic spaces and others viewed D1.2 as a location that balanced the opportunities of civic space on the east and the west of the neighborhood.

Given the level of interest in the park location and at the request of neighborhood residents, another neighborhood meeting was hosted on October 18,

2017. This meeting was organized as a presentation (see Appendix 2 for presentation) and discussion session focused on the civic space study, park alternatives analysis, and a more detail review of the proposed D1.2 neighborhood park location. The meeting was noticed via a newspaper ad, flyers, emails, a geographically targeted Facebook ad (12,000 views) and direct notices to neighborhood groups (e.g. Union Square Main Streets, Somerville Local First, Union Square Neighbors, etc.). Over 50 community members attended and the discussion was thoughtful and passionate.

Several attendees commented on the importance of adding new open space, doing it thoughtfully and ensuring that a broad group of residents could offer their input at the meeting and throughout the process. Several participants acknowledged the importance of reviewing the alternatives from several perspectives including considerations for existing residents, small business owners, workers and visitors as well as future residents, business owners, workers and visitors. Others also wondered how future improvements, like the athletic fields envisioned on Merriam Street, should influence the planning.

During the discussion, there were divided views as to whether D1.2 or D7.2 as a better location for the neighborhood park. D7.2 advocates cited its solar orientation, location near existing neighborhood activity nodes and proximity to the City of Somerville senior and young disabled housing as advantages. Advocates of D1.2 highlighted its location in an underserved portion of the neighborhood, its central location between the two future MBTA stops and its proximity to affordable housing on Washington Streets and Linden Streets. Residents also described challenges for each of the parcels. To some, D7 felt like a dead-end and would face a number of “backs” of buildings. To others, the D1.2 podium/park interface needed more design and D1 would benefit from more sun light late in the afternoons and evening.

Some of the comments provided at the meeting focused on specific designs details including park program elements (e.g. areas to sit, areas for children, outdoor music area, etc.), park green space, street trees, treating neighborhood edges and activating retail at park edges. These details will be explored more fully during the Design and Site Plan review stage of the process.



CONCLUSIONS

Providing new high quality, publicly accessible open space in Union Square is a goal shared by SomerVision, the Neighborhood Plan, the Union Square Zoning and the US2 development team. The CDSP process associated with civic and open spaces involved an interactive dialogue with community members through both formal and informal meetings, as well as multiple meetings with staff members of the City of Somerville. What has become clear throughout the process is that, unsurprisingly, the D Blocks themselves are insufficient to meet all the open space needs of the City of Somerville. However, the task remains to establish a framework for open space for the D Blocks that best meets the needs of the community while balancing the other objectives of the

development relating to creating a jobs center, adding affordable housing and activating the public realm as well as supporting infrastructure and community benefits priorities.

The applicant acknowledges the difficulty in assessing planning alternatives that should respond to both the present and future condition. Similarly, the continually evolving nature of data presents nuances that require careful inquiry, and a constant challenging of assumptions. In light of these challenges, our findings have, without question, informed the planning effort. Amidst an evolving context of users and their preferences, the executed Civic Space Study’s influence on the CDP is summarized below.

TABLE 3.7: CSS FINDINGS AND CDP INFLUENCE

FINDING	CDP OPEN SPACE PLAN INFLUENCE
Zoning Requirements	
17.5% civic space required, 10% of required can be fee in lieu.	Civic space plan was designed to meet these minimum area requirements.
Include one 27,000 SF neighborhood park and one plaza.	Civic space plan includes one 27,000 SF neighborhood park and one plaza civic space type.
Civic spaces minimum Green Space requirements (also neighborhood meeting participant’s promoted more green).	Civic spaces will be designed to meet the minimum green space requirements of the ordinance.
Civic space type design requirements for the 9 permitted types.	Civic spaces will be designed to meet the size, seating, tree count, impervious area and green space area requirements of the zoning.
Civic Space Locations, Master Plan	
The eastern portion of the neighborhood lacks the civic space access that the north and west enjoy.	The required neighborhood park is planned for D1.2 to address this inequity.
The GLX station and 2.4 million SF of new uses will result in new populations of workers and residents, use patterns will evolve and planned civic spaces should anticipate and respond to that evolution.	Six of the seven D blocks are proposed to include a civic space and the two main civic spaces, the D2 Plaza and the D1.2 Neighborhood Park will be centrally located to serve a breadth of users.
D1, D2 and D4 are best suited to filling neighborhood gaps for parks, greens and commons.	D1 and D2 include the two largest civic spaces and D4 includes three different civic space types.

FINDING**CDP OPEN SPACE PLAN INFLUENCE**

Civic spaces located on any of the D Blocks, except for D7, would directly serve environmental justice populations.	The interest in serving under-served populations and environmental justice populations motivated the decision to place the Neighborhood Park on D1.2.
Residents requested a greater civic space buffer from Webster Street residences to the D3 Block	D3.2 civic space was relocated from Windsor Street to Webster to provide a more substantial buffer.
D7 is best served of all the D Blocks by existing civic spaces, but several neighbors like it as the Neighborhood Park location.	Two conflicting findings emerged for D7. As a compromise, a civic space is planned for the D7 - a 6,000 SF park rather than a neighborhood park.
Neighbors were divided about whether the Neighborhood Park should go on D1.2 or D7.2 (neighborhood meeting feedback).	As part of our planning, both locations were assessed as Neighborhood Parks and in the context of the overall development goals, D1.2 emerged as the recommended location. A sizable civic space remains on D7.2.
Consider formal and informal connectivity of civic spaces. (Neighborhood meeting feedback)	Connectivity and linkages between civic spaces were a significant driver in the open space plan.

Civic Space Types, Programming, and Design

The community should be involved in the civic space type selection (Neighborhood meeting feedback).	In response to the expressed desire for significant community involvement in the type and character of each space, the development team has opted to defer the designation of the civic space type for civic space parcels that have type flexibility until the site plan review stage, thus giving opportunity for the community as well as the specific building design to drive the design and character of the space.
Civic spaces should serve a diverse range of ages from small children to the elderly.	The civic space plan will include a variety of different space types and locations (east central, south, northwest) that can serve a variety of users needs.
Spaces for seniors should be considered as that populations is expected to grow.	The civic space plan will include a civic space on D7.2 and will provide a pedestrian connection to the adjacent senior and young disabled housing building as well as Bow St.
Civic space needs of the largest groups ages 25-29 and ages 30-34 should be considered.	This demographic as well as others will be queried when civic spaces are programmed and designed during design and site plan review.
Resident and workers in the study are least served by pocket parks and greens, neighborhood meeting feedback focused on more green.	Several of the proposed civic spaces, D7.2 and D2.4 in particular, could be designated for the "greener" civic space types, a green or pocket park instead of plaza civic space types.
Athletic fields are a need (neighborhood meeting feedback).	Unfortunately, none of the civic spaces on the D Blocks are large enough to fulfill this need.
Community gardens remain a need (neighborhood meeting feedback).	The Concord Community Garden will be preserved on D4.3.

FINDING

Integrate arts and performance opportunities into the spaces (neighborhood meeting feedback).

CDP OPEN SPACE PLAN INFLUENCE

Given the unique character of Union Square and the art focused input of residents, the design and programming of the civic spaces will seek to integrate arts and performance opportunities. This may be through the design of the spaces themselves, defined areas for art or performance, or adjacencies to art and cultural uses.

Incorporate sustainable design (neighborhood meeting feedback).

Ecological benefits and sustainable design measures will be included in the design of all of the civic spaces. The urban tree canopy will be enhanced through the planting of abundant shade trees planted with sufficient soil mass to ensure long term viability. A very high percentage of the surface area of each space will either be planted or permeable paving for passive storm water management. Light colored paving will be used in paved areas for solar reflectivity and pedestrian lighting will be predominantly LED. Additionally, pedestrian and cycling will be encouraged with wide walkways and substantial bicycle parking. The plant palette will be diverse and will include the opportunity for community garden spaces.

Overall, significant consideration was given to community interests and needs in the design of the civic space plan. Additionally, the CDP will provide the ground work for the future design of high quality open spaces based upon detailed research of existing conditions and community input. The future design

and site plan review stages will give the opportunity for the community members to engage in more depth on the programming and design of each of the individual spaces to a well-loved, vibrant and dynamic open spaces to Union Square.