

# Demonstration Project Plan

## 90 Washington, Somerville, MA



Somerville Redevelopment Authority  
City of Somerville  
February 2019

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## I. Introduction

The purpose of this Demonstration Project Plan (“Plan”) is to implement a plan for the elimination of blight at 90 Washington Street in Somerville (the “Property”) pursuant to M.G.L. c.121B § 46(f), which the Somerville Redevelopment Authority (the “SRA”) will carry out in concert with the City of Somerville (the “City”) and its City Council. This Demonstration Project (“Project”) provides an opportunity to not only eliminate blight, but to meet a public need for a new public safety building and provide the opportunity for economic development at a transformative scale.

The Property is located at 90 Washington Street (also known as 102 Washington Street) within the Inner Belt neighborhood of Somerville. Currently owned by Cobble Hill Center, LLC, the site contains a strip mall that has been vacant since the summer of 2014, at which time the property owners evicted the commercial tenants and fenced the property to pursue a new development project. Although the partnership in control of the Property received approval for their proposed project, the effort was stymied by internal legal disputes. It is the City’s understanding that this litigation is ongoing, that a further appeal has been filed, and that the partnership will not be redeveloping the Property in the foreseeable future. The Property is highly visible in the neighborhood and located just steps away from a planned Green Line Station, yet it remains fenced, empty, and decrepit with no clear path forward.

The City of Somerville is in need of a new, modern public safety complex. The current facility at 220 Washington Street is functionally obsolete and requires major improvements. The building has proven to be inadequate for current police and safety operations and, furthermore, has been plagued with structural issues that have led to flooding and leaks. After conducting a thorough space needs assessment and quantifying the amount of space needed, the City initiated a site search process to identify potential sites for a new complex. Sites large enough to house the new public safety complex are extremely rare in Somerville. The 90 Washington site was deemed to be the most viable option in Somerville after an analysis that considered six different sites. This Plan incorporates the full Feasibility Study conducted by Weston & Sampson (Appendix B), as well as previous City communications reflecting the need for a new public safety building and the suitability of 90 Washington for that purpose (Appendices C and D).

In addition to the public safety building, the SRA and City Council will jointly explore additional, complementary uses on the site. As will be discussed later in this Plan, the site is in a prime location steps away from the planned East Somerville Green Line Station and at a highly visible intersection between Inner Belt, Brickbottom, Union Square, and East Somerville. This Project presents an opportunity to satisfy the need for a public safety building, as well as

providing additional civic, residential, and/or commercial space. While the current vacant strip mall runs the risk of further limiting adjacent development, a completed project at this site could have a transformative effect on the neighborhood because of its prime location as a gateway to the Inner Belt.

Based on the analysis and research presented in this Plan, the redevelopment of the Property is best achieved through a Demonstration Project as:

1. the Project will eliminate blight on a vacant, decadent site which is detrimental to the safety, health, welfare, and sound growth of the surrounding community;
2. the Project will deliver a much-needed public safety building to the community;
3. the Project will provide an opportunity to meet additional community objectives like the creation of more civic space, residential units, and/or commercial space for jobs; and
4. the Project will serve as a model, innovative approach to community development that combines a public use successfully integrated with private development.

This Plan further outlines the location of the Property, the detrimental effect its current condition has on the surrounding neighborhood, the objectives of the Project, and the process anticipated for the successful completion of the Project.

## II. Project Site

### A. Regional & Neighborhood Context

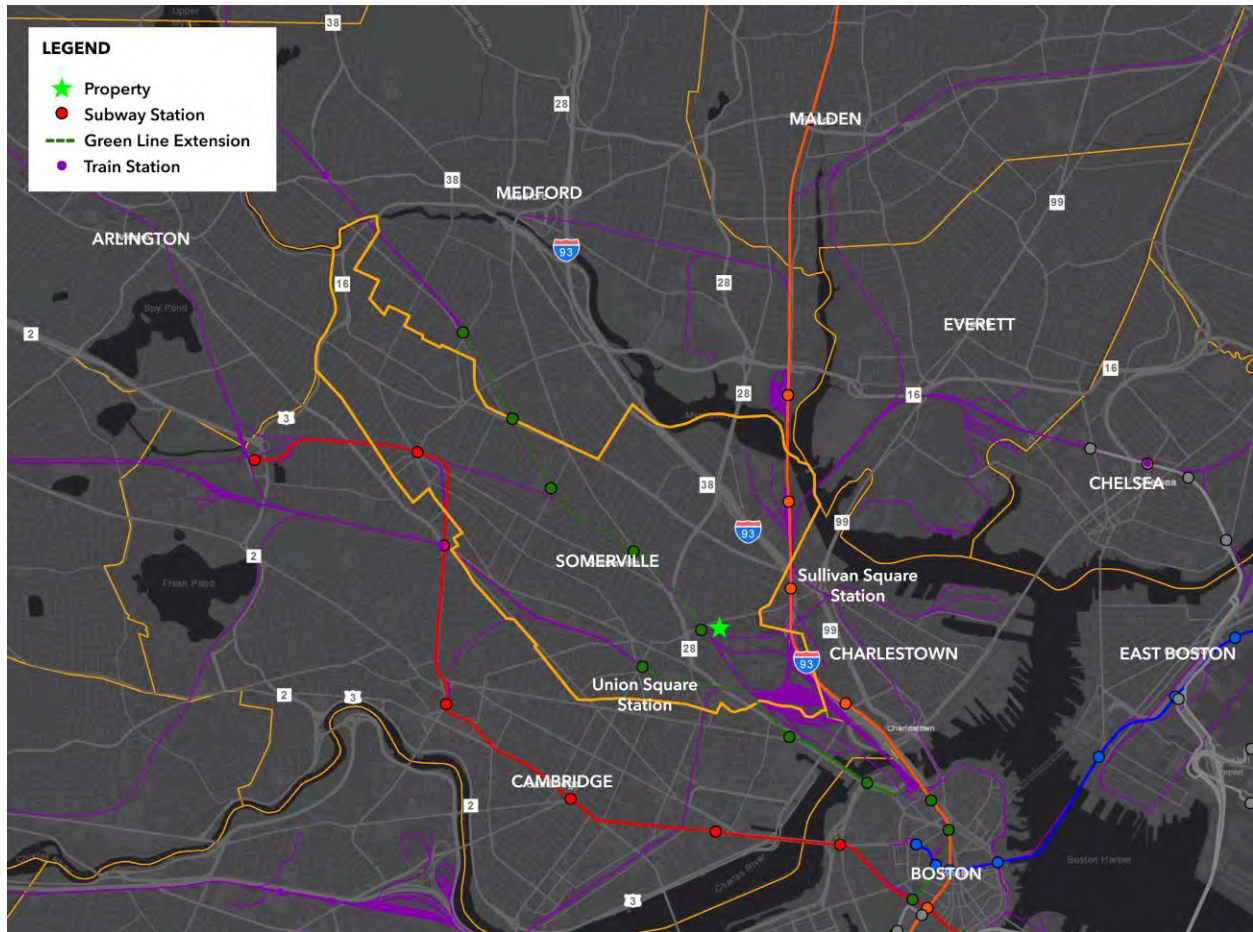
With 81,000 residents packed into just 4.1 square miles, Somerville, Massachusetts is the most densely populated city in New England. Historically, the city played an important role in America's economy, serving as a center for heavy industry from the mid-19th to mid-20th century. Today, Somerville is more closely associated with its thriving community life, artists, hip restaurants, and innovative cleantech businesses.

The Property is 3.99 ± acres and identified in the City of Somerville Assessors Database as parcel 106-A-6. The site is located south of East Somerville on the edge of the Inner Belt neighborhood with immediate adjacency to the planned MBTA East Somerville Green Line station (see Fig. 1). The station will be completed in 2021, providing quick and convenient transit service easterly to Lechmere Station in Cambridge, where it will connect to the entire MBTA rapid transit system and the commuter rail hub at North Station. Passengers will also be able to board the Green Line and head west to stations at Gilman Square, Lowell Street, Ball Square and Tufts University. The site also provides easy access by car to Interstate 93, which connects to the entirety of Greater Boston.

**Fig. 1: Rendering of East Somerville Green Line Station Area**

*Source: MBTA c. 2012.*

The Project is in Somerville's Inner Belt neighborhood, adjacent to the Brickbottom neighborhood. Inner Belt has historically been a predominantly industrial district of Somerville, with factories, warehouses, distribution centers and railroad connections. Today, it also supports a full-service Holiday Inn located down the street from the Property. The edge of Somerville's Union Square is only a few blocks to the east, and Sullivan Square, in Boston, sits to the west (see Fig. 2). These neighborhoods became Somerville's industrial hub after the installation of railroads in the 1840s connecting eastern Somerville to Boston. They housed leadworks, meatpackers, automotive assemblers, and chemical storage facilities. In the 1850s, much of the land within Inner Belt and Brickbottom was used for kilns to support the local brickmaking industry. By 1872, the Millers River had been filled and the surrounding marshland destroyed. The area was choked with brickyards, slaughterhouses, smokestacks, stagnant ponds, a municipal incinerator, and tightly packed worker housing.

**Fig. 2: Regional Context of the Property**

*Source: MassGIS, City of Somerville GIS*

In the 1950s, manufacturing started to ebb in Somerville. As industrial companies left, dozens of structures and homes were razed in preparation for construction of a regional “Inner Belt” Expressway. Community opposition halted construction in 1970, but the area has never recovered economically. Plans in the 1980s and 1990s to turn the area into a technology hub brought additional electrical, fiber, optic, and sewer infrastructure to the area, but the anticipated development never materialized. The Inner Belt and Brickbottom neighborhoods have only 444 residents (ACS 2011–15), nearly all of whom live in the Brickbottom Artists Cooperative (a former factory building) or the Cobble Hill affordable housing development, adjacent to the Property. Since 2014, when commercial and retail tenants were evicted from the Property, there has been no grocery store serving the neighborhood. The neighborhood remains the least developed and most economically and socially challenged part of the city with higher unemployment and a lower median household income.



The decline of manufacturing since the 1950s not only impacted the Inner Belt and Brickbottom neighborhoods acutely, but has also presented challenges for Somerville and its municipal budget. Commercial properties are generally taxable at a much higher rate than residential properties, so when industry fled the area, a significant portion of its commercial tax base was lost. This exodus also caused residential property values to plummet, constraining the City's ability to raise property tax revenue in order to maintain its water systems and sewer systems, roadways, public safety facilities, schools, libraries, and parks. As state aid has declined, Somerville has worked hard to bolster its revenues through careful budgeting and thoughtful community planning. While significant progress has been made--and is most visibly evident in the transformation seen at Assembly Square--the City continues to have one of the lowest per capita spending rates, \$3,022 in FY18, among Massachusetts' medium and large cities.

Despite the challenges of the Inner Belt and Brickbottom neighborhood, there are clear signs of a turnaround. A bustling arts community can be found at the Joy & Chestnut Streets Corridor. This connects several creative industry businesses including the Brickbottom Cooperative, artist studios, a video studio, and ArtFarm, an urban space for a self-sustaining art and urban agriculture laboratory designed to foster community engagement and creativity. Although the neighborhood is partially separated from the rest of Somerville by an elevated section of Route 28, this overpass will be transformed into a surface-level, multi-lane, multi-use urban boulevard within ten years. The de-elevation of this highway will promote further redevelopment opportunities for properties currently trapped by the elevated barrier.

**Fig. 3: Neighborhood Context**

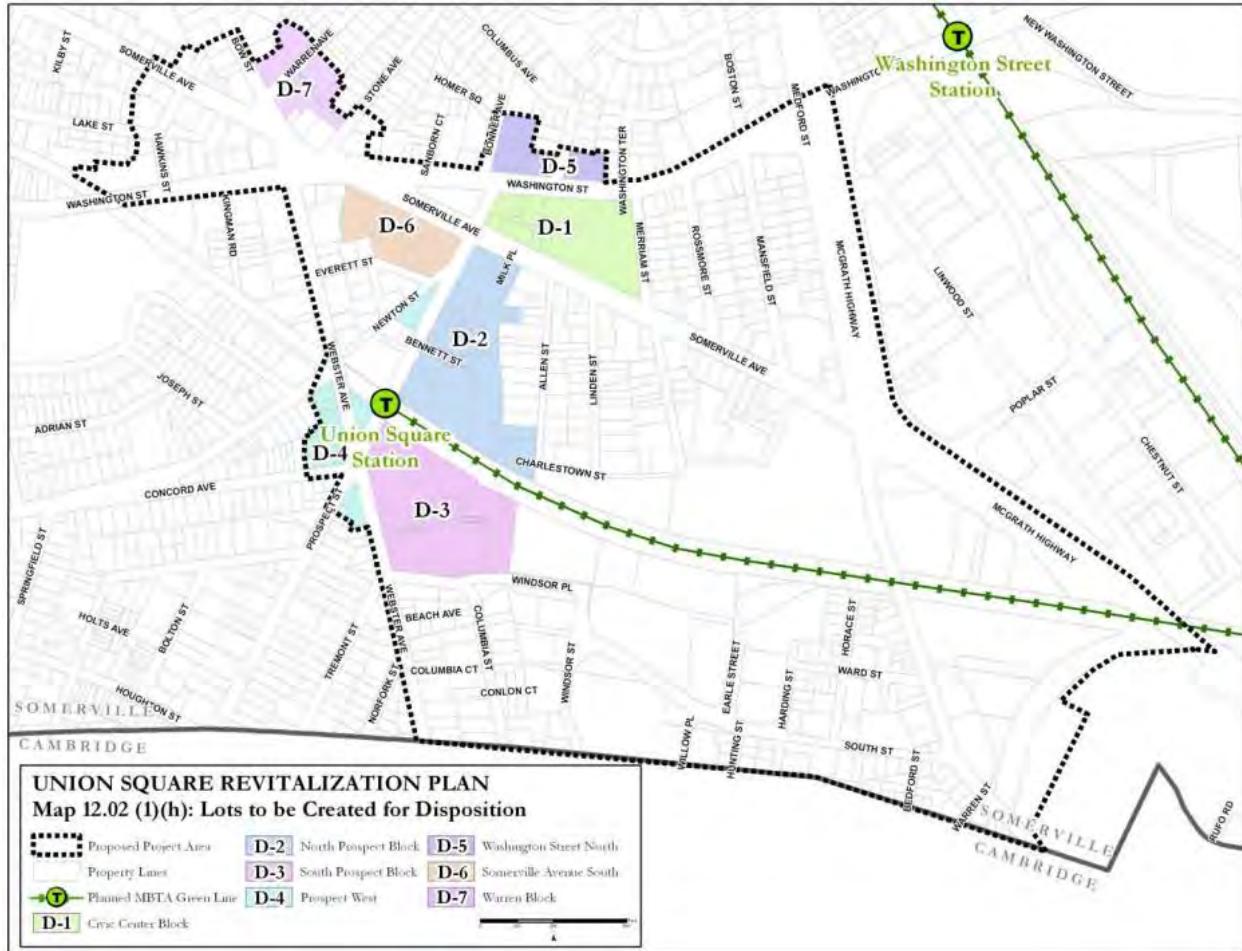
*Note: Star indicates Property location.*

*Source: MassGIS, City of Somerville GIS*

The Property is located a half mile from Union Square, which is also poised for transformation (see Fig. 3). Union Square is Somerville's oldest commercial district with local art, entertainment and critically-acclaimed fine dining. The area is on the cusp of a major revitalization as the Green Line Extension arrives in 2021, anchoring a new mixed-use development of 2.3 million square feet of office, housing, and retail space. The Union Square Revitalization Plan, approved in 2012, identified seven parcels for acquisition and disposition by the SRA. Union Square Station Associates, LLC (US2) was chosen as the master developer and is about to break ground on its first project (see Fig. 4). The development will provide 1.156 million square feet of office and science and technology lab space, 140,000 square feet of active ground floor retail, 93,000 square feet of hotel space, 74,000 square feet of arts and creative space, over 900 new residences, 110,000 square feet of civic space, and 27,000 square feet of new neighborhood park (see Fig. 5). This development will bring substantial commercial tax revenue and desperately needed housing to Somerville and create the kind of mixed-use transit-

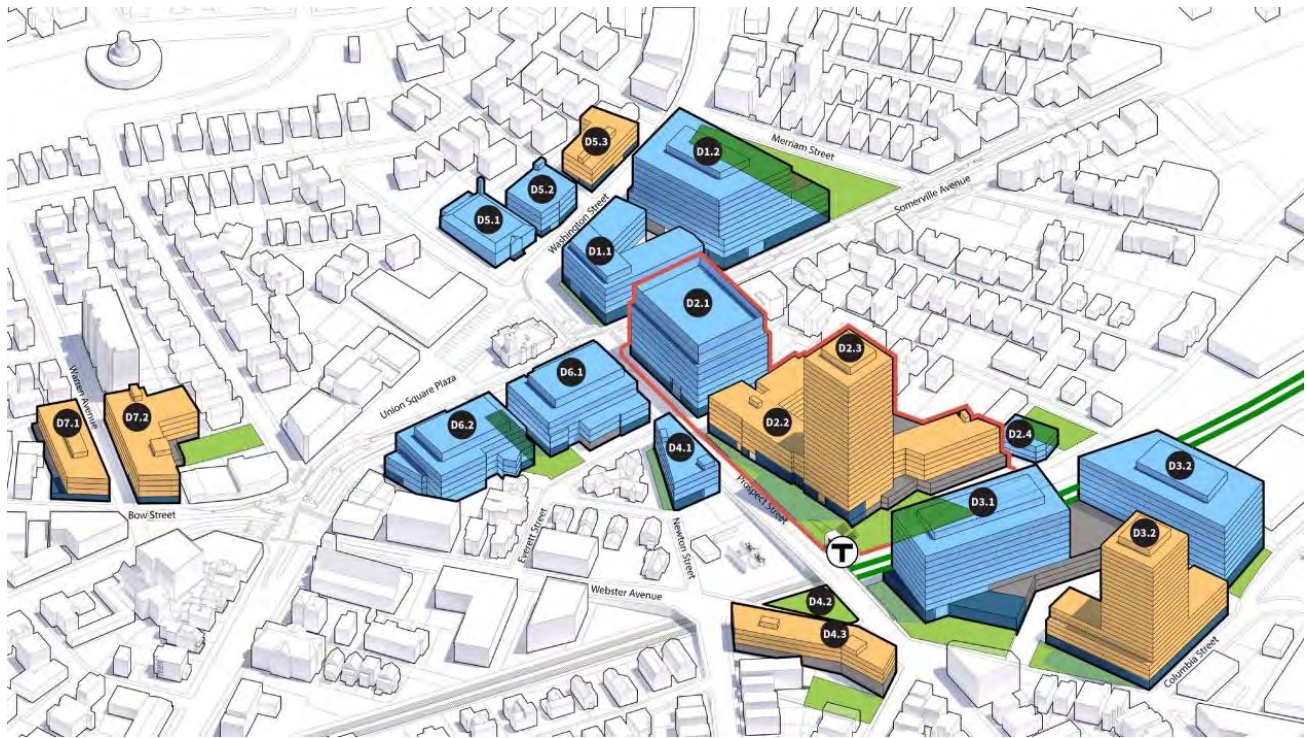
oriented neighborhoods imagined in SomerVision, the city’s comprehensive plan. All of these facilities are located just a short walk from the Property.

**Fig. 4: Union Square Urban Renewal Disposition Parcels**



*Note: Property is located in the top right corner of the map.*

*Source: [Union Square Revitalization Plan, October 2012.](#)*

**Fig. 5: Union Square Planned Development**

*Note: Red line denotes current phase of development. Blue denotes commercial development and orange denotes residential development.*

*Source: DiscoverUSQ.com*

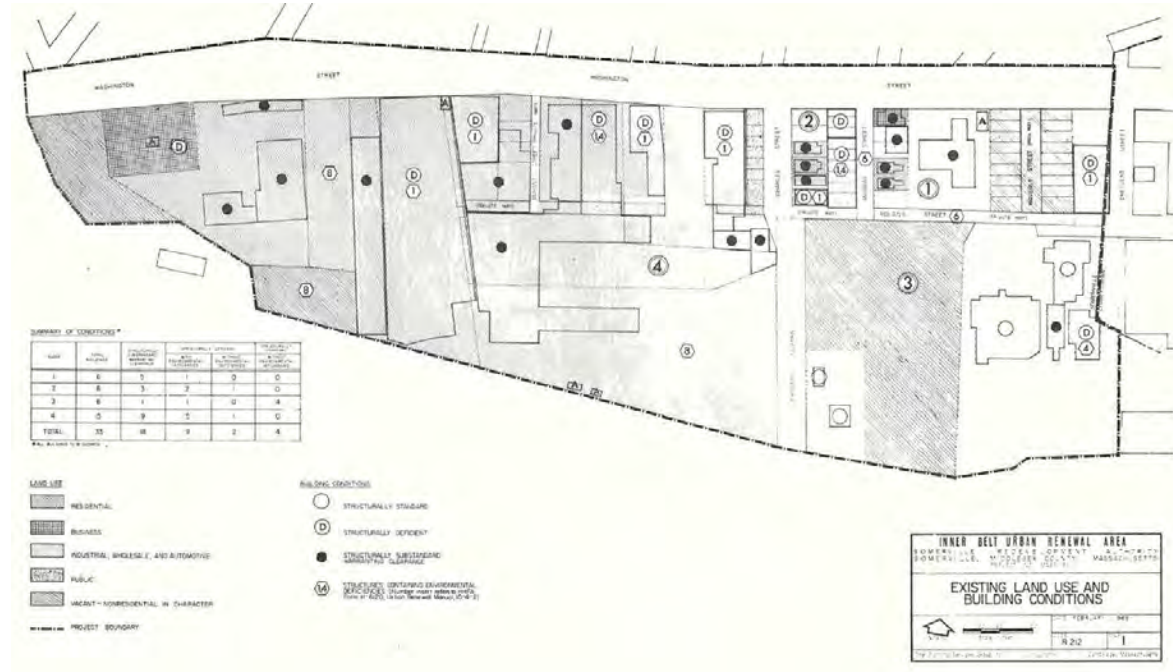
## B. Historic Site Conditions

The neighborhood known as Inner Belt used to be on a hill known as Cobble Hill. The Cobble Hill apartments and the vacant Cobble Hill Shopping center (the “Property”) stand at the northern side of where the hill used to be. In Revolutionary times, there was a fort at Cobble Hill and in the late 1700s, the Joseph Barrell Mansion was built on the hill. From 1818 to 1895, the Mansion and its surrounding grounds served as the first home for McLean’s Hospital, which later moved to Belmont. The area was later filled with rail lines. The mansion was demolished in 1925, and the hill was gradually used as fill. By 1950 most of the area was razed for development. It became an area for industrial uses.

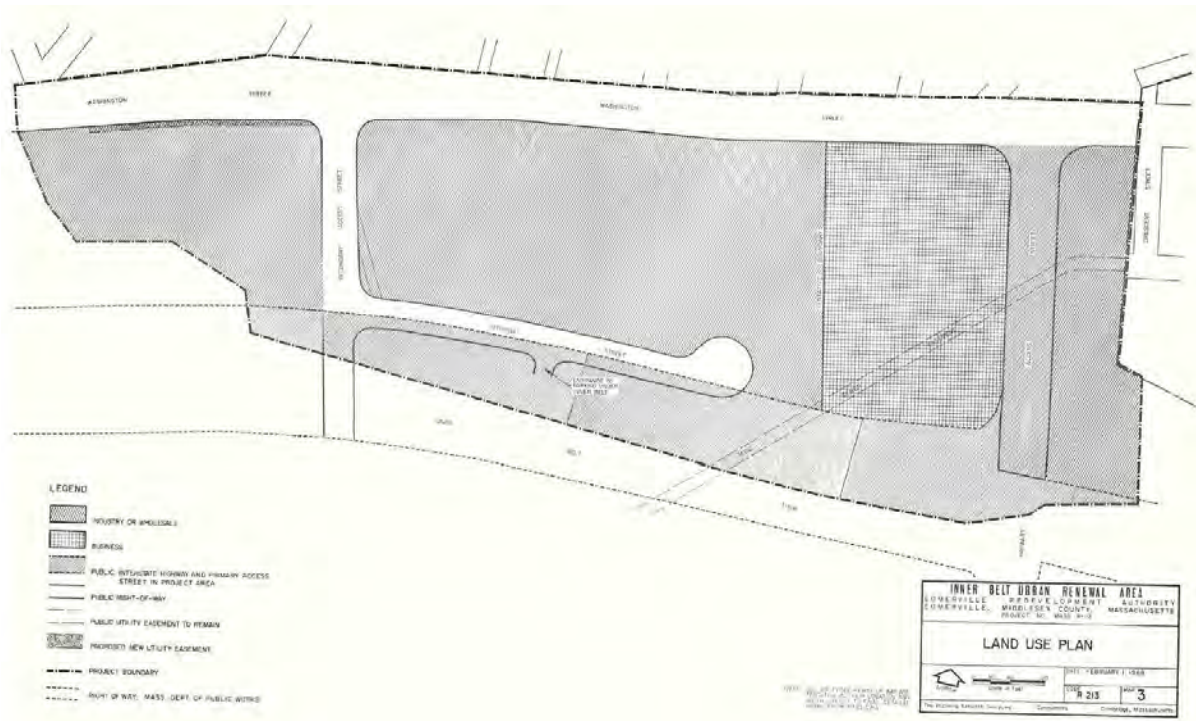
The Property was originally part of a larger parcel which housed an iron foundry and oil company between 1930 and 1975, and then sat vacant from 1975 to 1982. In 1968, the Property had become part of the SRA’s Inner Belt Urban Renewal Plan. The plan was created with the expectation that the Inner Belt highway would be constructed, and therefore the SRA needed, according to the plan, “to recreate and revitalize the City’s industrial areas,” “to eliminate blight and blighting factors and to prevent the recurrence of blight by the clearance of structures which are structurally substandard or which are deteriorated to a degree rendering rehabilitation

impractical,” and “to promote sound site planning and building arrangement in the development of individual parcels by private redevelopers in order to achieve coordinated and harmonious urban design,” among other goals. With the Inner Belt Urban Renewal Plan, the SRA intended to improve vehicular circulation, protect pedestrians, and develop the site cohesively. The plan proposed changes to utilities and the street network, as well as street improvements. (see Figs. 6 and 7 for maps included in the plan).

**Fig. 6: Inner Belt Urban Renewal Area Existing Land Use Map**



Source: Inner Belt Urban Renewal Plan, March 1968

**Fig. 7: Inner Belt Urban Renewal Area Land Use Plan**

*Source: Inner Belt Urban Renewal Plan, March 1968*

The SRA sold the site, including the subject Property, in 1980 to a development team in order to realize the goals of the urban renewal plan. Cobble Hill Associates developed a four building, 224-unit complex that opened in 1981 as the Cobble Hill Apartments. The complex includes 190 one-bedroom units and 34 two-bedroom units, all of which are rented to income-eligible seniors and families. The second phase of the project was the 12,555 square foot commercial plaza that opened in 1982 known as the Cobble Hill Plaza (the “Property”).

The subject Property includes only the commercial plaza and a small portion of the parking lot associated with the residential complex.

In 2012, the current owners explored potential redevelopment of the site. The parcel was subdivided in 2013 to create the Property as it exists today, (see Fig. 8). The owners submitted a proposal to construct a six-story, mixed-use development, which the Zoning Board of Appeals conditionally approved on October 16th, 2013. The proposal imagined a building that would have helped define the street along Washington Street, with parking behind the main building. The proposal included 12,976 square feet of commercial space on the ground level, a pedestrian plaza of 7,750 square feet, and 159 rental apartments over a 13,000 square foot building footprint. In preparation for the start of construction, the owners evicted the tenants in Summer 2014 and installed a temporary fence to secure the property.

Progress was stalled by dissension among the partners, and the resulting lawsuit halted development. The 2013 variances were extended in July 2015, after the applicant committed to demolishing the strip mall by October of 2015. This approval expired on January 28, 2016, and the Property has since remained vacant. The litigation between the partners of Cobble Hill Center LLC is ongoing. The property continues to languish since the tenants were evicted over four and a half years ago.

**Fig. 8: Aerial Overview of Property Today**



*Note: Green, outlined in A, denotes the Property. B denotes the parcel which A was originally a part of, which now has several buildings of affordable housing. C is the Holiday Inn, which was developed as a part of the Inner Belt Urban Renewal Plan.*

*Source: City of Somerville GIS Viewer.*

### C. Current Site Condition

The Property is an abandoned, 173,748 square foot parcel containing a single-story, suburban-style commercial strip mall. The existing commercial center contains 12,555 square feet and the remainder of the property includes two parking lots, one associated with Cobble Hill Apartments and the other providing 54 spaces for the strip mall.

The exterior of the building has not received significant investment, is in poor condition and requires substantial property improvements. A sagging roof, chipped paint, and other details typical of a long uninhabited building make the property look decrepit. The site perimeter includes temporary construction fencing which is visibly falling apart and leaning over (see Fig. 9). Its lack of vitality and unmaintained condition blunts street life along Washington Street, attracts undesirable activity, and discourages investment by neighboring property owners.

**Fig. 9: Property Photos**







*Note: Photos taken December 2018.*

The vacant site has become a magnet for illicit activity and represents an attractive nuisance. Records from the Somerville Police Department gathered since 2014, at about the time the building became vacant, indicate that the department has received 15 calls regarding this Property. This includes four instances of breaking and entering or larceny and five instances of suspicious, sick, or unwanted persons on the property. The City’s Inspectional Services Department has also received complaints regarding the Property over the last few years. The Department issued a citation in April 2016 to replace broken windows.

The fenced-off asphalt lot serving the vacant strip mall remains in an open, blighted condition. Walking along this derelict lot on Washington Street is uncomfortable and unwelcoming for pedestrians. This is particularly unfortunate as the Property’s location is a major city gateway seen by 17,000 drivers each day. The Property sits at one of only two entrances into the Inner Belt Neighborhood, and the Property will soon be steps away from the future East Somerville Green Line Station.

## D. Redevelopment Potential and Challenges

The Property is already well-situated as a major gateway into Somerville, with terrific vehicular access and visual prominence along a key corridor into the City. The arrival of the East Somerville Green Line station next door as well as nearby redevelopment efforts in Union Square should foster investment interest.

Currently, the site is zoned for Commercial Residential (BB), which provides a maximum height of 50 feet and a maximum floor area ratio of 2.0. The purpose of this district is “to establish and preserve general commercial and high density residential areas consisting of multi-family developments, shopping centers, commercial strips and automobile related establishments where customers reach individual businesses primarily by automobile.” Existing zoning applied to this approximately 4-acre site could potentially allow almost 350,000 square feet of new development, but will require variances to build a walkable project with narrow front-yard setbacks.

The City is currently contemplating an overhaul of the entire zoning code. The proposed zoning for the site in the Somerville Zoning Overhaul is Commercial Industrial (CI), a district that calls for large floorplate buildings up to four stories in height (see Fig. 10). These include warehouse and factory style buildings with multi story offices. The proposed zoning would allow development constructed at a greater density than is currently permitted. It would not permit residential development. At a future date, after more public process, the City may consider an overlay zone, permitting some residential development mixed with a minimum percentage of commercial development.

**Fig. 10: Rendering of CI Development**

*Source: Proposed Somerville Zoning Ordinance*

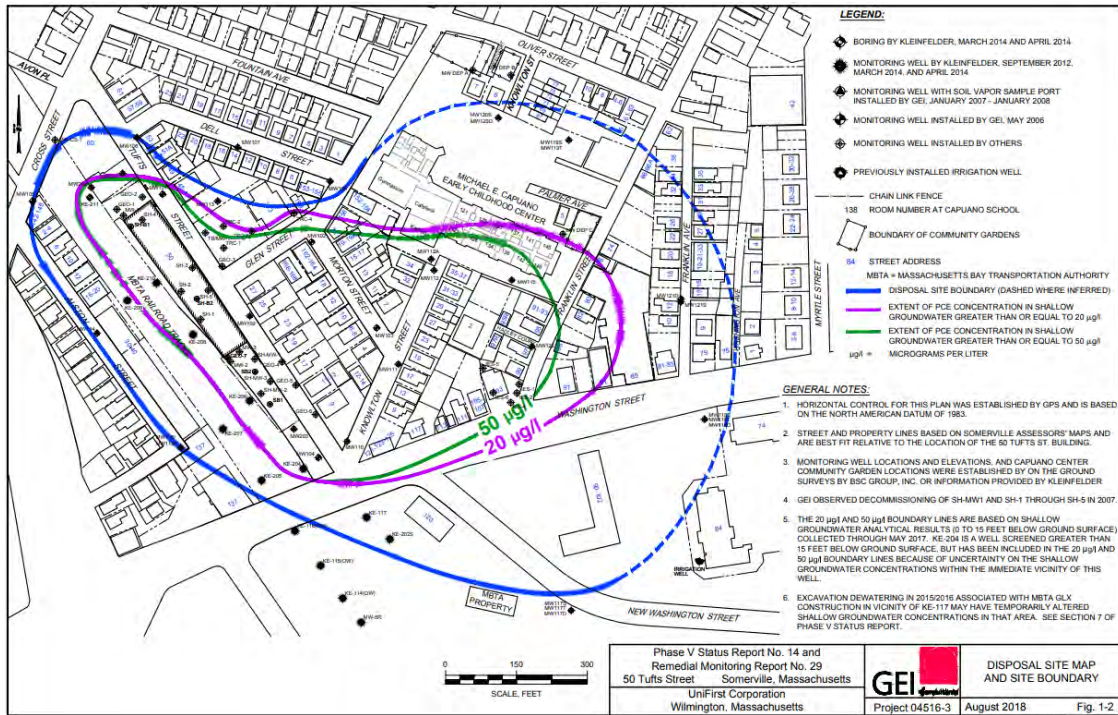
Despite the locational strengths and the potential for robust regulatory entitlements, redevelopment efforts remain stymied. The most prominent challenges include:

- **Complicated property ownership:** The underlying ownership of the property involves a web of easements, including a parking lot associated with the Cobble Hill Apartments and cross easements for utilities. Further complicating the situation, the owners remain embroiled in a years-long legal dispute which led to the permanent abandonment of the 2013 special permit. Resolution does not appear likely in the foreseeable future.
- **Site Contamination:** Potential contamination at the site serves as a barrier to private development. The site is contaminated by virtue of its history as the location of an iron foundry and has been assigned RTN 3-0031102 by the Massachusetts Department of Environmental Protection (MassDEP). Environmental site assessments completed by EBI Consulting in 2012 found acenaphthylene, naphthalene, 2-methylnaphthalene, C9-C18 aliphatics and C11-C22 aromatics, all in soil concentrations requiring reporting to MassDEP. In preparation for development, EBI Consulting conducted additional soil characterization work in 2014. Most recently, a Phase II Comprehensive Site Assessment was conducted by McPhail Associates on behalf of the Cobble Hill Apartments Company in September 2018 in accordance with the Massachusetts Contingency Plan (MCP), 210 CMR 40.0000 (see Appendix F).

- Contamination from adjacent sites:** The site is located 500 feet from 50 Tufts Street, the site of a former commercial laundry and the source of a large contamination plume that impacts the entire neighborhood. The property at 50 Tufts Street was used for the storage and distribution of industrial chemicals, laundry supplies, and dry-cleaning solvents from 1955 to 2002. The Property is located within the area of impact (see Fig. 11).

According to the September 2018 Phase II report by McPhail Associates, the appropriate remedial option for the site will be the excavation and off-site reuse, recycling or disposal of contaminated soil. In regards to the 50 Tufts plume, their licensed site professional GEI expects to work with any future developer on the site to install appropriate exposure pathway mitigation measures to prevent any of the contamination from further affecting the site. Both components of appropriate remediation, however, are stymied by the current litigation. As the McPhail report indicates, pursuing these remedial actions is not possible until pending litigation is resolved and development is imminent.

**Fig 11: Phase V Disposal Site Map and Site Boundary for 50 Tufts Street**



Source:

<https://eeaonline.eea.state.ma.us/EEA/fileviewer/Default.aspx?formdataid=0&documentid=457>  
365

- **Inefficient parcel shape:** The lot shape and size as subdivided from its easterly neighbor is not ideal. As visible in Fig. 8, the parcel has an odd shape and contains sections that are too narrow for construction. Without dramatically altering the surrounding street network and acquiring the different ownership interests and easements necessary to move streets, maximizing development remains a challenge.

## E. Community Engagement and Vision

The City has a tradition of thoughtful and inclusive public processes to engage residents and other stakeholders about the future of Somerville. The Project and the surrounding neighborhoods have been the subject of several community engagement processes to articulate desires for the future.

The City's 20 year comprehensive plan, SomerVision, clearly articulates the kind of development the community desires on this Property. The district has been designated as one to "transform" with dense, mixed-use development. SomerVision has many ambitious goals, including creating 6,000 new housing units, 30,000 new jobs, and 125 new acres of open space by 2030. One of the community's main strategies for achieving these goals is to target 85% of new development in transformative areas like Inner Belt, and ensure that a substantial portion of the new development will spur job growth through new office, lab and hotel uses.

There are many other goals, policies, and actions listed in SomerVision, and at least 20 of these speak to the need for improvement in Inner Belt, including:

- To transform key opportunity areas, such as Inner Belt into dynamic, mixed-use and transit-oriented districts that serve as economic engines to complement the neighborhoods of Somerville.
- To facilitate thoughtfully-designed, pedestrian-oriented, mixed-use development and reuse opportunities in commercial corridors, squares and around transit stations that are sensitive to neighborhood context and serve existing and future residents and businesses.
- To link Somerville's corridors, squares and growth districts to support future development and economic activity.
- Reduce artificial physical barriers between Inner Belt and Brickbottom, and between East Somerville and West Somerville.
- To promote municipal financial self-determination and reduce fiscal dependence on state aid and residential taxes and fees.

The City completed an Inner Belt Brickbottom Neighborhood Plan (see Appendix E) in 2015. This plan is the result of workshops, focus group meetings, a public "walkshop", and a series of public focus group meetings to generate dialogue on the future of these neighborhoods. The plan

identifies five “core values” based on this community engagement. These values, and how they relate to this Project, are:

- Create great places for people: The Property in its current state is a blighted, fenced-in eyesore.
- Connect neighborhood to neighborhood: Redeveloping the Property to provide a more effective gateway into the Inner Belt area will help provide a friendlier connection to the rest of the city.
- Grow the economy: By providing commercial space, the Property can bring jobs into the area and encourage more economic activity in the vicinity.
- Coordinate public and private investment: The unique delivery model for this project will demonstrate how market-driven private investment can complement and support public investment.
- Deliver ongoing value with sustainable development approaches: Removing a decadent use and replacing it with a mixed-use development that provides necessary social services and improved landscaping will support the economy, the community and the natural environment.

Planning staff is looking to further update some portions of this plan to establish an appropriate percentage of open space and commercial development in Inner Belt and to update the proposed zoning with an overlay that will permit some residential use with a minimum portion of commercial use across the district.

In addition, the exact development of the site could, if properly managed, support numerous other planning efforts and initiatives, including:

- Vision Zero: By supporting bike and pedestrian accommodations, improving the public right of way, and incentivizing the use of the East Somerville station with businesses and civic space, the Property can support the safety of pedestrians, cyclists, and other commuters.
- Somerville Climate Forward: The Capital Projects and Planning Department has stated their hope for a Net Zero building, which would contribute to the City’s goals for carbon neutrality.
- Linkage Fees: Large-scale commercial development can support workforce development efforts and affordable housing creation through the mandated linkage fees. These revenues are spent according to the Jobs Creation and Retention Trust Board and Affordable Housing Trust Fund.
- 2016-2023 Open Space and Recreation Plan and Fields Master Plan: Open space is in short supply in Somerville, and there may be an opportunity to incorporate open space on this site depending on the final program and design.

- Food Systems Assessment: Currently the elderly residents in the apartments adjacent to the Property have no easy access to food. The owners of the property initially provided shuttle service to the residents when they evicted Tedeschi from the site. Commercial space for a small neighborhood market may be a reasonable use for the site.

This is just the beginning. The City, City Council and SRA expect to utilize an additional community-focused, interactive public engagement process to clarify the development program for the Property as the SRA implements this Plan as outlined in Section IV of this Demonstration Project Plan.

### III. Objectives

#### A. Eliminate Blight

The objectives of the Demonstration Plan Project are as follows:

- (a) To secure the elimination and prevent the recurrence of blighted, deteriorated, deteriorating, or decadent conditions in the project area;
- (b) To insure the replacement of such conditions by well-planned, well-designed improvements which provide for the most appropriate reuse of the land in conjunction with the City's comprehensive Plan, SomerVision;
- (c) The improvement of land use and traffic circulation;
- (d) The improvement of public facilities;
- (e) The provision of a decent, pleasant, and humane environment involving a mixture of those land uses needed to produce balanced development;
- (f) To maximize the full socio-economic potential of the project area with the most appropriate land uses and densities, and consistent with the other objectives stated herein;
- (g) To promote economic development which strengthens the City's tax base without unacceptably impacting the physical, social, and cultural environment;
- (h) To establish the minimum necessary land use controls which promote development, yet protect the public interest;
- (i) To establish a set of controls which are adaptable to both current and future market conditions;
- (j) To secure development in the shortest possible time period;
- (k) To establish a sense of identity and place for Inner Belt;
- (l) To capitalize on the location next to the Washington Street Green Line Extension station.

The primary objective for the Project is to eliminate blight and to prevent the recurrence of blight by redeveloping an existing property with structures which are structurally substandard or have deteriorated to a degree rendering rehabilitation impractical. The site is blighted due to its dilapidated, unsafe, and unhealthy condition. Public intervention is warranted as the Property seems unlikely to be developed privately due to ongoing litigation, its unusual parcel shape, and environmental contamination.

This Project seeks to resolve these issues in the pursuit of the elimination of blight. Not only will this Project eliminate blight by removing the existing decadent building, but also by pursuing the



kind of transformative, mixed-use, transit-oriented development the community calls for in SomerVision and the Inner Belt and Brickbottom Neighborhood Plan. The successful development of the site will improve the safety and health of the neighborhood surrounding it.

## B. Public Safety Complex

The Plan for this Property addresses a critical municipal need: the construction of a new, modern public safety complex. The need for a new public safety facility has been part of the City's Capital Improvement Plan since November 2016, and has been referenced in other city reports for many years.

Currently, the Somerville Police Department headquarters is located at 220 Washington Street, along with Engine 3 and other Somerville Fire Department staff and apparatus. The Public Safety Building has been used for these purposes since 1985, but the building was never designed to function as a police headquarters or to house a fire department. The property was built as a car barn by the MBTA, a use that was maintained until it was transferred to the City in 1985. The building has structural issues which have led to serious flooding. This flooding was so serious that, at one time, Engine 3 staff had to be relocated into temporary trailers and is now working out of modular units located on the site.

The Capital Projects and Planning Department hired Weston & Sampson to conduct a space needs assessment to compile quantitative and qualitative data about the existing facility and to understand administrative and operational goals and how those goals relate to spatial requirements. Based on this information, a space needs summary was developed indicating specific interior and exterior requirements. Individual sketches of key administrative, operational, and support spaces were developed including specific layout information for required furniture and equipment as well as technology, communications, audio/visual, lighting, HVAC, finishes, and privacy requirements. Total building program for the Public Safety building is approximately 84,500 square feet for various uses, including but not limited to, public community space, police administration, training center, police operations, vehicle storage and Fire Department Engine 3. This report is available as Appendix D.

In addition to assessing program needs, Weston & Sampson was also directed to conduct a site investigation. The City provided a preliminary list of sites for exploration, and Weston & Sampson analyzed these options considering size, allowable development size, ownership, zoning and permitting data, and assessed value. This analysis yielded six sites for further evaluation. These included 17 Inner Belt Road, 17 McGrath Highway, 185 Somerville Ave, 501 Mystic Valley Parkway, 526 Somerville Ave, and 90 Washington.

These six sites were evaluated along several criteria, including:

- Fire response time
- Community visibility and connection
- Site access
- Size of usable space
- Shape of site
- Whether Engine 3 could fit
- Proximity to residential district
- Allowed area coverage
- Presence of receptors
- Hazardous materials issues
- Availability of utilities
- Permitting
- Traffic impacts
- Existing structures
- Existing tenants and owners
- Site assessment cost

Based on these criteria, the 90 Washington site scored 63 points out of a possible 85, or 74%. The next ranking site identified was 17 McGrath Highway, which scored 68%.

The Somerville community needs a new public safety facility, and the 90 Washington site is the most suitable one according to third-party analysis. A key objective of this Plan will be to implement a design and construction process for a public safety building that meets all the criteria outlined in the space needs assessment.

### C. Transformative Development Opportunity

It is unlikely that the entire site will be used for the new public safety building. For this reason, a portion of the parcel could support a transformative, mixed-use development program anchored by the nearby East Somerville Green Line Station. Transit-oriented development could meet several important community needs and desires, including tax and job generating commercial development, affordable neighborhood-serving retail uses, community civic space, additional housing, both market rate and affordable, or other community-oriented uses.

Development options will likely provide various schemes for overlapping uses within the buildings, and the details of the development program and tenants will be discussed through a public process over the course of this Project to meet evolving community needs. There is an opportunity to further explore additional public uses such as a regional 911 dispatch center in addition to commercial or residential uses. Ultimately, the goal is to have a Project that meets the public safety requirements as well as provides an engaging and flexible mix of other uses in order to create an accessible, inclusive, and welcoming space.

## IV. Demonstration Project Plan

### A. Legal Basis for Demonstration Project Under Massachusetts Law

As the urban renewal agency for the City of Somerville, the Somerville Redevelopment Authority plays an important role in the redevelopment of transformational districts identified within Somerville’s community plan, SomerVision. The SRA exercises powers available to such agencies under Chapter 121B of the Massachusetts General Laws.

The SRA’s authority under Chapter 121B includes, among other powers, the power to:

- (i) declare that an area is a substandard, decadent, and/or blighted;
- (ii) prepare plans for the redevelopment of such areas; and
- (iii) to carry out revitalization projects for the “prevention and elimination of slums and urban blight.”

*Within urban renewal areas, the SRA is authorized to prepare urban renewal plans that call for the undertaking of urban renewal projects aimed at eliminating what the law has defined as decadent, substandard and blighted open areas. The SRA is authorized “to engage in or contract for the construction, reconstruction, alteration, remodeling or repair of any clearance, housing, relocation, urban renewal or other project which it is authorized to undertake or parts thereof.” M.G.L. c. 121B § 11(f).*

Section 46(f) of Chapter 121B provides the SRA with special authority to adopt and develop “demonstration projects” *outside of urban renewal areas*. Section 46(f) reads, in part: “*an urban renewal agency shall have all the powers necessary or convenient to carry out and effectuate the purposes of relevant provisions of the General Laws, and shall have the following powers in addition to those specifically granted in section eleven or elsewhere in this chapter: ... (f) to develop, test and report methods and techniques and carry out demonstrations for the prevention and elimination of slums and urban blight.*”

The terms “slums” and “urban blight” are not defined in c. 121B, but § 1 does define the related terms “substandard”, “decadent” and “blighted open”:

- **Blighted open:** “*a predominantly open area which is detrimental to the safety, health, morals, welfare or sound growth of a community because it is unduly costly to develop it soundly through the ordinary operations of private enterprise by reason of the existence of ledge, rock, unsuitable soil, or other physical conditions, or by reason of the necessity for unduly expensive excavation, fill or grading, or by reason of the need for unduly expensive foundations, retaining walls or unduly expensive measures for waterproofing structures or for draining the area or for the prevention of the flooding thereof or for the*

*protection of adjacent properties and the water table therein or for unduly expensive measures incident to building around or over rights-of-way through the area, or for otherwise making the area appropriate for sound development, or by reason of obsolete, inappropriate or otherwise faulty platting or subdivision, deterioration of site improvements or facilities, division of the area by rights-of-way, diversity of ownership of plots, or inadequacy of transportation facilities or other utilities, or by reason of tax and special assessment delinquencies, or because there has been a substantial change in business or economic conditions or practices, or an abandonment or cessation of a previous use or of work on improvements begun but not feasible to complete without the aids provided by this chapter, or by reason of any combination of the foregoing or other condition; or a predominantly open area which by reason of any condition or combination of conditions which are not being remedied by the ordinary operations of private enterprise is of such a character that in essence it is detrimental to the safety, health, morals, welfare or sound growth of the community in which it is situated.”*

- ***Decadent:*** *“an area which is detrimental to safety, health, morals, welfare or sound growth of a community because of the existence of buildings which are out of repair, physically deteriorated, unfit for human habitation, or obsolete, or in need of major maintenance or repair, or because much of the real estate in recent years has been sold or taken for nonpayment of taxes or upon foreclosure of mortgages, or because buildings have been torn down and not replaced and under existing conditions it is improbable that the buildings will be replaced, or because of a substantial change in business or economic conditions, or because of inadequate light, air, or open space, or because of excessive land coverage or because diversity of ownership, irregular lot sizes or obsolete street patterns make it improbable that the area will be redeveloped by the ordinary operations of private enterprise, or by reason of any combination of the foregoing conditions.”*
- ***Substandard:*** *“any area wherein dwellings predominate which, by reason of dilapidation, overcrowding, faulty arrangement or design, lack of ventilation, light or sanitation facilities or any combination of these factors, are detrimental to safety, health or morals.*

## B. 90 Washington as a Demonstration Project

The 90 Washington Street Project is an appropriate demonstration project, as defined under Section 46(f) of Chapter 121B. The Project includes one single, four-acre parcel located outside of any existing urban renewal area in Somerville. Targeted, public intervention is necessary and appropriate to eliminate the existing blight generated by this long-vacant site. Action is required to prevent the expansion of blight to the surrounding properties and the adjacent neighborhood.

In addition, the proposed development program includes a new municipal public safety complex integrated into a comprehensive reuse plan, which could provide a useful example for other communities throughout the Commonwealth.

The site is blighted and decadent. The sole building on the property--a long-vacant, single-story retail strip mall--is out of repair, physically deteriorated, functionally obsolete, and in need of major maintenance. The poor condition of the site is detailed throughout this document and is an eyesore to anyone walking by or driving along Washington Street.

There exists a real concern that this situation will persist and potentially infect the surrounding area and expand blight throughout the neighborhood. The vacant structure will continue to attract illicit activities and have a detrimental effect on the sound growth and prospects of property investment within the surrounding neighborhood. The ongoing litigation between the owners creates uncertainty and concern among neighbors and other community stakeholders that this blight will be a long-term situation.

This demonstration project could serve as a test for possible application elsewhere in Somerville and in other communities throughout the Commonwealth. Demonstration projects have not been widely used as development tools; only the Cities of Boston and Cambridge have used the demonstration project approach recently. The unique combination of uses proposed on the site, including a municipal public safety complex combined with housing, office and other community uses will require thoughtful collaboration among the SRA, the City Council, the City, neighborhood stakeholders and the development community.

Solving complicated problems with an interactive, community-focused engagement process is what Somerville does best. A public-private development project and the collaborative approach to getting it done will generate lessons Somerville is willing to share with communities throughout the Commonwealth.

## C. Demonstration Project Phases

It is anticipated that implementation of the Project will include six phases. Successful implementation will require close coordination between the SRA, the City Council, project management support by the City of Somerville OSPCD and Capital Projects teams, and development entities. These phases will likely include:

- Demonstration Project Plan Approval
- Acquisition of 90 Washington Street
- Project Delineation and Design
- Developer Selection

- Project Implementation

### **Phase I – Demonstration Project Plan Approval (Q1, 2019)**

The 90 Washington Street Demonstration Project will mark the first time that the SRA will utilize Section 46(f) of Mass General Laws Chapter 121B to undertake a redevelopment project. The Project presents a unique opportunity for the SRA and City Council to collaborate, maximizing the strengths and resources of each in order to eliminate blight, site a critically-needed municipal facility and to facilitate transformative development consistent with SomerVision and community needs. This collaboration has been memorialized into a Memorandum of Agreement (MOA) signed by the SRA and the City Council on (ENTER DATE) (See Appendix A).

The Demonstration Project Plan was presented and discussed during a regular meeting of the SRA on January 10, 2019 and adopted on February 8, 2019. The Plan was presented and discussed during a meeting of the Finance Committee of the City Council on February 11, 2019 and adopted by the City Council on \_\_\_\_\_, 2019.

### **Phase II - Acquisition of 90 Washington Street (Q1 & Q2, 2019)**

Upon adoption of the 90 Washington Street Demonstration Project Plan, the City Council shall vote upon the appropriation of funding to enable the SRA to pay the owner of the Property the pro tanto amount within sixty (60) days of the date of the taking, as required by M.G.L. c. 79. The SRA will vote to acquire the Property through its authority to exercise power of eminent domain.

It is anticipated that the property acquisition will take place in the first half of 2019.

### **Phase III - Project Delineation and Design (2019-2020)**

The City will initiate a systematic process of determining the use of the property and design of each project element. The process will recognize that the principal future use of the site shall include a new public safety building. The City will convene a Public Safety Complex Building Committee, which will be tasked with determining how much of the site will be needed for the Complex and guide its construction. Simultaneously, the City will initiate a public process to gather feedback about stakeholder desires related to additional program elements on the portion of the Property not needed for the public safety complex. These two processes will work in collaboration with the goal of creating a development program that meets the needs and of Somerville.

- **Public Safety Complex Building Committee:** The City will convene a Public Safety Complex Building Committee, which will include City staff from the Somerville Police Department, Somerville Fire Department, and Capital Projects to provide ongoing input

and decision-making related to the public safety component of the development. The Committee shall work to advance the Public Safety Complex final design and construction.

The Committee shall work cooperatively with an Architectural/Engineering firm(s) and the Owner's Project Manager (OPM) in the development of biddable building plans to incorporate the Police headquarters, Fire, Ambulance, Dispatch and Emergency Management Departments. The Committee shall assist the City administration in procurements including but not limited to the engagement of a project designer/engineer, OPM, and Clerk-of-the-Works (COW). The Committee shall work cooperatively with an Architectural/Engineering firm(s), the Owner's Project Manager (OPM), and Clerk-of-the-Works (COW) to incorporate the Police, Fire, Capital Projects team and the Contractor, through project construction. This process shall be conducted pursuant to appropriate public construction bidding and procurement statutes.

The site plan for the Public Safety Complex will likely take one of two forms. Either a portion of the Project parcel may be subdivided to allow the construction of a "stand-alone" multi-story public safety complex or the public safety uses can be incorporated in a larger mixed-use building on the site. An important early action of the Committee and its architects will be to determine which of these two site typologies is feasible and to what extent one approach might maximize development opportunities on the remainder of the parcel. The Committee will work collaboratively with the City, the SRA and the City Council to identify and communicate these opportunities.

- **Public Engagement Process:** The City, the SRA and the City Council will initiate a public outreach and engagement process to engage stakeholders to explore additional, complementary uses on the site. Somerville directly involves residents in urban design and economic development decisions facing their neighborhood in a meaningful way. That vision is created from the ground up, using a series of steps.

OSPCD will schedule public meetings in the neighborhood to solicit and respond to community input. These meetings will include:

- a. *Listening and Visioning Session:* OSPCD will facilitate a meeting with the neighborhood to listen and learn what the community would like to see on the Property and what partnerships could help further these programs of uses. The object is to collect as many ideas as possible--nothing is too small, too big, or too crazy for consideration. The City is committed to creating a list of needs and priorities in the neighborhood and a program of uses the community would like to see on this site.

- b. *Design Workshop:* Through the feedback from the Visioning session, City staff and the City’s consulting team will explore strategies and design concepts for achieving the community goals for the Property; massing, economic conditions, traffic circulation, use and design, etc. The feedback loop on the design workshop will inform the final concept presented to the City Council in the next step of the process.
- c. *Final Presentation:* A final concept and list of various uses will be developed to be presented to the City Council, who will have the responsibility of articulating the community’s goals and program of uses to determine alternative uses and refine its development objectives for the Request for Qualifications/Proposals (“RFQ/RFP”). The SRA will ratify the future use determined by the City Council, provided that is consistent with this Plan.
- d. Additional steps may be added as necessary.

#### **Phase IV – Developer Selection (2020)**

If redevelopment of the site, or a portion of the site, by a private developer is determined by the City Council to be the appropriate future use of the property, the SRA shall undertake a process, which may include issuance of a request for proposals or similar process, whereby a developer is selected to implement the future use. City staff will incorporate feedback and input from the Final Presentation and final concept approved by the City Council to draft a request for proposals or qualifications, as appropriate, to solicit proposals from developers interested in implementing the Project.

Through this RFQ/RFP, the SRA expects to select a well-experienced and well-qualified firm that shares in the vision and goals articulated in the Plan as a public-private partnership that works in true cooperation. The Development Partner will work with the SRA and the City of Somerville to realize economic growth, foster new employment opportunities, civic and public uses, and add vitality to Inner Belt and help to address infrastructure needs in a way that encourages pedestrians, cyclists and users of public transit alike in one of the nation’s most vibrant and exciting mid-sized cities. Just as important, this RFQ/RFP or similar solicitation process seeks to provide an opportunity for the SRA and the Development Partner to demonstrate a sense of community and place, embracing and enhancing elements that help to definite Inner Belt in its past, in the present and for the future while also creating new economic opportunities for the residents of our City.



The submittals would be evaluated against several criteria components, which may include the following:

- Overall approach and alignment with the Vision and Objectives outlined in Phase III
- Programmatic partnerships and financial structure
- Development entity history, experience, and capacity
- Initial design approach and project schedule
- Redevelopment design and improvement plan
- Project feasibility, including proposed program, operations, costs, and financial plan
- Detailed program description including proposed relationships between uses
- Project schedule and readiness to proceed
- Direct community benefit of building program

The SRA may also weigh the Developer's ability and commitment to meet municipal needs and provide broader public benefits beyond improvements designed to serve only the development itself.

All proposals will be evaluated by a Technical Advisory Committee ("Committee"), who will make recommendations to the City Council and SRA for development teams ("Developer") who secure the highest scores during the evaluation process. The evaluation criteria will include price (to purchase or lease the parcel) as one of many measures of success, but also requires a project to engage the community, meet the proposed standards and guidelines and produce a successful project.

The Committee may request additional information of the applicants in writing and use that information in evaluating the responses. Proposers may be asked to present their proposals to the Committee, other City staff, neighborhood groups, the City Council, the Mayor, and/or the SRA as part of this review process.

Once the Developer is selected pursuant to the process laid out in the MOA, the entity will work with appropriate City departments and the SRA to develop a site design plan, a phasing plan and schedule and detailed financial plan that will help to realize the needs of the Developer while meeting the project goals to establish a mixed-use Transit Oriented Development program consistent with the goals and objectives for development of this Plan. The Developer will be expected to present its implementation plan in a manner which preserves and enhances the sense of place and unique qualities that define Inner Belt, while still providing for an expanded economic base for the City using Transit Oriented Development.

There will be a Land Disposition Agreement (LDA) between the SRA and the designated Developer. The LDA will describe the development to be constructed in detail and will contain

safeguards, such as rights of reverter, ensuring that the SRA's expectations as to any proposed project are fully met and that the project is constructed substantially as proposed. The LDA will be approved by the City Council.

The Developer will enter into an Exclusive Negotiating Agreement (ENA) with the SRA and commence good faith negotiations for a LDA. During the ENA period, the Developer will be required to undertake project design, project outreach, environmental site investigation/testing, and a title search.

#### **Phase V - Project Implementation (2021- )**

The Developer will commence good faith negotiations with the SRA for a LDA. Once the LDA is approved by the City Council and SRA, the Developer will submit construction documents for development. If the project does not break ground within three years from the date of transfer, the SRA will retain the right to take back title to the land at no cost.

### **D. Financial Plan**

The Project will integrate public uses, specifically the municipal public safety complex, along with private uses and other community uses. As a result, the project will likely include a mix of funding sources.

- **Acquisition Costs:** The Demonstration Plan names one property to be acquired, 90 Washington Street. The total acquisition cost for this property is currently \$8.7 million, which is based on a property valuation appraisal recently commissioned by the City. In addition to the acquisition price paid to the property owners, acquisition costs may include additional appraisals, title, preliminary site assessments, and other closing-related expenditures.
- **Relocation Costs:** The federal Uniform Relocation Assistance and Real Property Act, the federal relocation regulations at 49 CFR 24, along with the Massachusetts General Laws Chapter 79A Relocation Assistance and Regulations at 760 CMR 27.00 et seq. require that assistance and benefits be provided to residents and businesses who are displaced as a result of a real estate acquisition by a public entity, or a private entity using public funds, regardless of whether the real property is acquired by eminent domain or negotiated sale. Negotiated sales between a private entity and a seller using private money are not subject to relocation assistance and benefits. No relocation costs will be incurred for this project. The site is vacant.
- **Site Preparation Costs:** The site will require demolition of the existing retail plaza and parking lot, potential abatement of hazardous materials and additional site preparation

work for buildings, structured parking and potentially, subsurface parking. These costs are estimated at approximately \$3 million. Multiple development approaches are under consideration, which would determine whether the City of Somerville or a private development entity would fund these costs.

- **Development Costs:** The Project consists of at least two project elements, the municipal public safety complex and the private mixed-use development.

The municipal public safety complex is estimated to cost approximately \$48.5 million of base building improvements, according to the most recent City of Somerville Capital Investment Plan (CIP). Additional fit-out costs are anticipated to escalate by 6% per year to reflect the high inflation rates in vertical construction, assuming the project breaks ground in FY 2020 or 2021. OPM, design, and construction oversight costs are 25% of construction costs. These elements may cost \$12 million to \$31 million above the base building costs, depending on the ultimate uses and programs of the building. Additional program elements are under consideration, including a community meeting space and a regional 911 dispatch center.

The construction of the new public safety building has been included as a critical project in the CIP since November 2016. The associated debt service of these two expenses has been factored into the City's long-range financial model for the General Fund.

The City is exploring using the proceeds from the anticipated sale of the Union Square D1 parcel, the current location of the public safety building, to reduce debt service costs.

The private portion of the project will also provide substantial capital. The SRA and City may assist the Developer with securing low interest financing and gap funding resources, as they are available.

The Project may take advantage of multiple public and private sources of funds. One goal is to ensure the long-term financial sustainability of the Project by using private investment in the physical asset and its operations. Traditionally, planning, design, and construction have been independent and sequential. Builders bid on jobs based on finalized designs, and the owner selects the lowest-bidder to develop the project. However, through further analysis and community feedback, the following delivery methods may be explored to better project financing, flexibility, efficient project delivery, and reduced financial risk. Options include:

- Sale of the parcel
- Subdivision of the parcel for Public Use and Private Use

- Lease of the land
- Mixed-use condominium for commercial, housing, and public uses
- Design - Build - Finance
- Public-private partnerships (P3)
- Construction Management-at-Risk (CM-at-Risk)

**Statement of Direct/Indirect Interest**

No member of the SRA nor the City Council, employee or officer of the City of Somerville has, or is believed to have, any direct or indirect interest in any parcel to be acquired under this Demonstration Plan.

**E. Local Approvals**

The Demonstration Plan shall require the affirmative vote of a majority of the members of each of the City Council and SRA in order to adopt the Plan. No part of the Plan shall be implemented until the Plan has been approved by both parties.

The Demonstration Plan was submitted to the SRA and Somerville City Council on January 10, 2019. The SRA approved this Plan and MOA at a meeting on February 8, 2019. The City Council voted (RESULT OF VOTE) to approve the MOA and the 90 Washington Demonstration Plan on (INSERT DATE).

## F. Demonstration Plan Amendments

From time to time it may be desirable or necessary to amend elements of the Demonstration Plan either as a minor plan amendment or as a major plan amendment. A regular process of assessment and evaluation of the uses and programs will provide valuable feedback on its success in meeting the Vision and Objectives, or alternatively, the need to update them. The process of assessment and evaluation shall be conducted in consultation with the SRA, City Council, OSPCD and the Developer. The assessment should take into account any legal agreements by and between the City and the SRA, actual operations, changing demand or market forces, updates in technology or other innovations, and other outside forces. A minor plan change is a change that does not significantly affect any of the basic elements of the Plan. A major plan change is a significant change in any of the basic elements of the Plan and shall be reviewed and approved through majority vote by the SRA and the City Council.

## Appendices

The appendices for this Plan are enclosed.

- Appendix A: Memorandum of Agreement, SRA & City Council
- Appendix B: New Somerville Police Headquarters Programming and Site Evaluation Report
- Appendix C: Memo – Future Public Safety Building
- Appendix D: Proposed Public Safety Building and Fire Department (Engine 3) Presentation
- Appendix E: Inner Belt Brickbottom Plan
- Appendix F: Phase II Comprehensive Site Assessment

## MEMORANDUM OF AGREEMENT

This Memorandum of Agreement is entered into this \_\_\_ day of \_\_\_\_\_ 2019 between the SOMERVILLE CITY COUNCIL (“Council”) and SOMERVILLE REDEVELOPMENT AUTHORITY (“SRA”). Collectively, the Council and SRA shall be referred to herein as the “parties”.

Whereas, the City of Somerville requires a new public safety facility to replace an aging facility in Union Square which is located on an Acquisition/Disposition Parcel under the Union Square Urban Revitalization Plan, which was adopted and approved by both parties in October 2012 (“USQ Plan”);

Whereas, the City has identified the property known and numbered 90 Washington Street, the site of a derelict strip mall which has been vacant for approximately 4.5 years, as an ideal site for a new public safety facility (“Property”);

Whereas, at 173,748 ±SF, the Property is large enough to site the proposed public safety facility, as well as other uses, such uses to be determined through a public process;

Whereas, the SRA has the authority under G.L. c. 121B, sec. 46(f) to create and implement a demonstration project to prevent and eliminate blight in areas outside of an approved urban renewal plan;

Whereas, 90 Washington Street is located outside the boundaries of the approved USQ Plan and any other active urban renewal plan;

Whereas, the SRA has the authority to take property by eminent domain for redevelopment, including commercial and/or residential redevelopment pursuant to a demonstration project plan;

Whereas, the Council concurs in the potential of the property for such redevelopment;

Whereas, the SRA and Council wish to work together to develop a demonstration project plan, acquire the Property, and redevelop the Property in accordance with the needs of the City, as guided by the public;

Now, therefore, the parties agree as follows:

1. Demonstration Project Plan. A Demonstration Project Plan describing the Property, the means by which the SRA intends to eliminate the blight of the Property, the public process for determining the future use(s) of the Property, and the process by which the

Property may be redeveloped shall be drafted by the Economic Development Division (who typically serve as staff to the SRA pursuant to the City-SRA contract) of the Mayor's Office of Strategic Planning and Community Development ("OSPCD"). Such Plan shall be submitted to both the SRA and Council for review and discussion concurrently with the submittal of this memorandum. The parties may elect to hold a joint meeting to discuss such Plan.

2. Adoption of the Demonstration Project Plan. The Demonstration Project Plan shall require the affirmative vote of a majority of the members of each of the Council and SRA in order to adopt the plan. No part of the Plan shall be implemented until the Plan has been approved by both parties.
3. Acquisition of 90 Washington Street. Upon adoption of the Demonstration Project Plan as set forth in Paragraph 2 above, or as soon as practicable thereafter:
  - (a) The Council shall vote upon the appropriation of \$\_\_\_\_\_ to enable the SRA to pay the owner of the Property the pro tanto amount within sixty (60) days of the date of taking, as required by M.G.L. c. 79.
  - (b) Provided that the Council has voted favorably to appropriate the pro tanto amount, the SRA shall vote to take the Property by eminent domain.
4. Public Process to Determine Future Use. The Demonstration Project Plan shall set forth a public process for determining the future uses and preferred redevelopment of the Property. The principal future use of the site shall be as a new public safety building. Additional future uses and preferred redevelopment strategies shall be determined through the public process. OSPCD shall complete the public process according to the Plan and make recommendations to the Council about future uses and an implementation strategy for those uses.
5. Public Hearing. When public hearings are to be held on the Demonstration Project Plan and/or future use of the Property, the parties shall coordinate to hold a joint public hearing.
6. Future Use of the Site. Prior to execution of any use or activity other than the public safety building, the Council must approve the outcome of the public process, including future uses and redevelopment strategies, taking into account the testimony received at any joint public hearings, as well as community input gathered through the public process set forth in the Demonstration Project Plan, as well as any analyses or recommendations



from the City's Planning Department. Provided that the future use is consistent with the Demonstration Project Plan, the SRA shall ratify the future use endorsed by the Council.

7. Future Developer Selection. If redevelopment of the Property, or a portion of the Property, by a private developer is determined by the Council to be the appropriate future use of all or part of the Property, the SRA shall undertake a process, which may include issuance of a Request for Proposals, whereby a developer is selected to implement the future use. If a Request for Proposals process is undertaken, a technical advisory committee shall be formed to review developer submissions. One half of the membership of the technical advisory committee shall be selected by the SRA and the other half shall be selected by the Council. The technical advisory committee shall make its recommendations on semi-finalists and finalists to the Council, which may vote to either endorse the recommendations in their entirety, reject the recommendations in their entirety, or change the recommendations; provided, however, that at least two developers are recommended. The recommendations as approved by the Council shall then be provided to the SRA. The SRA shall vote to select a developer from the recommendations provided from the Council.
  
8. Master Land Disposition Agreement. The SRA will negotiate a Master Land Disposition Agreement ("MLDA") with the chosen developer. Such MLDA, as well as any amendments thereto, shall be subject to the review and approval of the Council. The MLDA shall not be binding upon the parties until it has been approved by the required vote of the Council, and executed by the SRA Chair.
  
9. Cooperation. The parties agree to work cooperatively to achieve the goals of the Demonstration Project Plan.
  
10. Amendment. This MOA may only be amended by mutual agreement of the parties in writing signed by both parties.

Witness our hands and seals on the day and year first above written.

**SOMERVILLE CITYCOUNCIL**

**SOMERVILLE  
REDEVELOPMENTAUTHORITY**

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By: Katjana Ballantyne  
Its: President

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By: Nancy Busnach  
Its: Chair

## MEMORANDUM OF AGREEMENT

This Memorandum of Agreement is entered into this \_\_\_ day of \_\_\_\_\_ 2019 between the BOARD OF ALDERMEN (“BOA”) and SOMERVILLE REDEVELOPMENT AUTHORITY (“SRA”). Collectively, the BOA and SRA shall be referred to herein as the “parties”.

Whereas, the City of Somerville requires a new public safety facility to replace an aging facility in Union Square which is located on an Acquisition/Disposition Parcel under the Union Square Urban Revitalization Plan, which was adopted and approved by both parties in October 2012 (“USQ Plan”);

Whereas, the City has identified the property known and numbered 90 Washington Street, the site of a derelict strip mall which has been vacant for approximately 4.5 years, as an ideal site for a new public safety facility (“Property”);

Whereas, at 173,748 ±SF, the Property is large enough to site the proposed public safety facility, as well as other uses, such uses to be determined through a public process;

Whereas, the SRA has the authority under G.L. c. 121B, sec. 46(f) to create and implement a demonstration project to prevent and eliminate blight in areas outside of an approved urban renewal plan;

Whereas, 90 Washington Street is located outside the boundaries of the approved USQ Plan and any other active urban renewal plan;

Whereas, the SRA has the authority to take property by eminent domain for redevelopment, including commercial and/or residential redevelopment pursuant to a demonstration project plan;

Whereas, the BOA concurs in the potential of the property for such redevelopment;

Whereas, the SRA and BOA wish to work together to develop a demonstration project plan, acquire the Property, and redevelop the Property in accordance with the needs of the City, as guided by the public;

Now, therefore, the parties agree as follows:

1. Demonstration Project Plan. A Demonstration Project Plan describing the Property, the means by which the SRA intends to eliminate the blight of the Property, the public process for determining the future use(s) of the Property, and the process by which the Property may be redeveloped shall be drafted by the Economic Development Division

(who typically serve as staff to the SRA pursuant to the City-SRA contract) of the Mayor's Office of Strategic Planning and Community Development ("OSPCD"). Such Plan shall be submitted to both the SRA and BOA for review and discussion concurrently with the submittal of this memorandum. The parties may elect to hold a joint meeting to discuss such Plan.

2. Adoption of the Demonstration Project Plan. The Demonstration Project Plan shall require the affirmative vote of a majority of the members of each of the BOA and SRA in order to adopt the plan. No part of the Plan shall be implemented until the Plan has been approved by both parties.
3. Acquisition of 90 Washington Street. Upon adoption of the Demonstration Project Plan as set forth in Paragraph 2 above, or as soon as practicable thereafter:
  - (a) The BOA shall vote upon the appropriation of \$ \_\_\_\_\_ to enable the SRA to pay the owner of the Property the pro tanto amount within sixty (60) days of the date of taking, as required by M.G.L. c. 79.
  - (b) Provided that the BOA has voted favorably to appropriate the pro tanto amount, the SRA shall vote to take the Property by eminent domain.
4. Public Process to Determine Future Use. The Demonstration Project Plan shall set forth a public process for determining the future uses and preferred redevelopment of the Property. The principal future use of the site shall be as a new public safety building. Additional future uses and preferred redevelopment strategies shall be determined through the public process. OSPCD shall complete the public process according to the Plan and make recommendations to the BOA about future uses and an implementation strategy for those uses.
5. Public Hearing. When public hearings are to be held on the Demonstration Project Plan and/or future use of the Property, the parties shall coordinate to hold a joint public hearing.
6. Future Use of the Site. Prior to execution of any use or activity other than the public safety building, the BOA must approve the outcome of the public process, including future uses and redevelopment strategies, taking into account the testimony received at any joint public hearings, as well as community input gathered through the public process set forth in the Demonstration Project Plan, as well as any analyses or recommendations

from the City's Planning Department. Provided that the future use is consistent with the Demonstration Project Plan, the SRA shall ratify the future use endorsed by the BOA.

7. Future Developer Selection. If redevelopment of the Property, or a portion of the Property, by a private developer is determined by the BOA to be the appropriate future use of all or part of the Property, the SRA shall undertake a process, which may include issuance of a Request for Proposals, whereby a developer is selected to implement the future use. If a Request for Proposals process is undertaken, a technical advisory committee shall be formed to review developer submissions. One half of the membership of the technical advisory committee shall be selected by the SRA and the other half shall be selected by the BOA. The technical advisory committee shall make its recommendations on semi-finalists and finalists to the BOA, which may vote to either endorse the recommendations in their entirety, reject the recommendations in their entirety, or change the recommendations; provided, however, that at least two developers are recommended. The recommendations as approved by the BOA shall then be provided to the SRA. The SRA shall vote to select a developer from the recommendations provided from the BOA.
8. Master Land Disposition Agreement. The SRA will negotiate a Master Land Disposition Agreement ("MLDA") with the chosen developer. Such MLDA, as well as any amendments thereto, shall be subject to the review and approval of the BOA.
9. Cooperation. The parties agree to work cooperatively to achieve the goals of the Demonstration Project Plan.
10. Amendment. This MOA may only be amended by mutual agreement of the parties in writing signed by both parties.

Witness our hands and seals on the day and year first above written.

**BOARD OF ALDERMEN**

**SOMERVILLE REDEVELOPMENT  
AUTHORITY**

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By: Katjana Ballantyne  
Its: President

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By: Nancy Busnach  
Its: Chair

# REPORT

June 20, 2018

CITY OF  
**Somerville**  
MASSACHUSETTS

New Somerville Police Headquarters  
Programming and Site Evaluation Report



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## EXECUTIVE SUMMARY

The City of Somerville commissioned Weston & Sampson to undertake a Feasibility Study for a new Police Headquarters. The scope of investigation included assessment of the existing Police Station facility, a facility space needs assessment, investigation and analysis of potential sites, and conceptual site planning for a new facility. In addition, Weston & Sampson was asked to evaluate the space needs for the Fire Department Engine 3 Company, currently housed at the Police Headquarters, which the City is considering including in a new Police Headquarters facility.

The existing facility was renovated from a MBTA car barn in 1985 to accommodate the Police and Fire Departments. Because of the constraints of the existing building and growth of the departments since 1985, the facility no longer functions efficiently for the Police and Fire Departments. The building also has many deficiencies due to its age and site issues, including severe flooding in the lower floors and an aging exterior envelope.

Weston & Sampson, along with their sub-consultant, Kaestle Boos Associates, conducted detailed staff interviews and inventory of the existing police facility. From this information, a detailed program and space needs diagram for each of the required spaces were developed. After review with the Police and Fire Departments, it was determined that a program of approximately 78,000 square feet was needed to accommodate the current and future needs of the Police Headquarters, and approximately 6,500 square feet of program space for the Fire Department Engine 3. Programming information is attached in Appendix A.

Based on this programming information, Weston & Sampson developed generic, conceptual layout schemes to determine a minimum ground floor footprint for a proposed new Police HQ building. Examining both three and four story schemes, it was determined that a minimum footprint of between 18,000 and 30,000 square feet will be needed to accommodate the proposed program in an efficient and logical manner. These conceptual layouts allow: 1) The ground floor level to accommodate Fire Engine 3, Police detention, and public-oriented services; 2) The upper floors to accommodate Police Administration, operations, Police and Fire staff support, and other Police specialty functions. The concepts typically assume a below-grade level for police vehicle storage.

Weston & Sampson worked with the City to determine a list of criteria to be used for objectively scoring a short-list of viable sites selected by the City. A matrix of the final six sites was further developed by scoring each site based on sixteen criteria organized in eight categories. Conceptual site layouts were also developed for each of the six finalist sites in order to verify their usability. Site 6, 90 Washington Street, scored highest in the matrix with a 74% score. Further detailed discussion of the criteria used and how the sites were scored is included in this report.

## 1.0 EXISTING FACILITY DESCRIPTION AND ANALYSIS

Section 1.0 A physical and operational assessment of 220 Washington St., home to the Somerville Police Department Headquarters and Somerville Fire Department Engine 3 Company, confirms that it does not meet the current and future needs of the departments. Operationally, the building is too small. Furthermore, the facility, a former MBTA car barn last renovated in 1985, not only fails to meet modern-day policing and firefighting needs, it has reached the end of its useful life.

### 1.1 Existing Police HQ Facility

A number of deficiencies have been identified with the existing facility, including but not limited to:

- There is inadequate space for current and future needs of the Police Department to carry out their public safety duties.
- There is inadequate space for police vehicles on the site.
- Adjacencies within the Police divisions do not meet operational needs of the department.
- The 911 Dispatch center does not meet current professional design standard practices for security, break and locker provisions, etc.
- Severe flooding occurs in the basement floors, putting police and fire vehicles, the building generator, and other areas at risk. Flooding led to the relocation of Engine 3 staff out of the building into temporary trailers and later modular units on site.
- The building exterior envelope is aging and requires upgrade and significant maintenance.
- There is inadequate parking for public use on the site.
- There are scheduling and security conflicts between the Academy Training room, community use space, and the Emergency Operations Center, which currently all share the same space.

## 2.0 PROGRAMMING AND SPACE NEEDS ASSESSMENT

Section 2.0 Weston & Sampson and their sub-consultant, Kaestle Boos, conducted detailed interviews with supervisors, officers and staff from all divisions within the Police Department. Utilizing national design standards of practice for Public Safety facilities, space needs diagrams were developed for each of the required spaces in the proposed new facility. Some of these spaces matched the existing spaces, while many of the spaces were either new or expanded as needed to meet the operational requirements of the Police Department. From these space needs diagrams, a programming matrix was developed to determine a minimum total facility size. In addition, a comparison of the existing spaces to the proposed program was included.

The program for the proposed facility concluded that a building of approximately 78,000 square feet will be needed to meet the current and future operational needs of the Police Department. This does not include the proposed program for the Fire Department Engine, estimated at 6,500 square feet, as described in 2.2 below.

### 2.1 Police Department Programming

The Police Department consists of the following divisions and departments:

- Administration, including:
  - Administrative Staff
  - Special Operations
  - Homeland Security
  - Crime Analysis
  - 911/Dispatch
  - Financial Services
  - Payroll, Records
  - IT/Communications/Social Media
  - Community Outreach
  - Animal Control
  - Auxiliary
- Criminal Investigation, including:
  - General Investigations
  - Family Services/Domestic Violence
  - Forensics
  - Narcotics
- Operations, including:
  - Patrol
  - Traffic
  - Marine Unit (future)
- Academy/Training
- Detention
- Evidence

## 2.2 Fire Department Engine 3 Programming

The Fire Department Engine 3 consists of the following program spaces:

- Firefighter's Quarters/Support, including:
  - Report writing work area
  - 4 Bunk rooms
  - Kitchen
  - Dayroom
  - Dining
  - Gym
  - 3 toilets
  
- Apparatus Bays:
  - Engine 3
  - Ladder 4 (spare used when frontline equipment is being repaired)
  - Engine 4 (spare used when frontline equipment is being repaired)
  - Fire Investigator Unit SUV
  - Boat and Trailer
  - Gear Lockers
  - Equipment Wash Area
  - Equipment Storage
  - Tire Storage
  - Hose Storage

### 3.0 SITE INVESTIGATION

The site assessment process began with a preliminary list of potential sites provided by the City for Weston & Sampson to review. A list of basic site information for all the sites was compiled, including size, allowable development size, ownership, zoning and permitting data, and assessed value. From this initial group, a final list of six sites was developed for evaluation.

Site information for the final six sites is included in Appendix B.

#### 3.1 Site Analysis Criteria

Weston & Sampson worked with the City to develop the site evaluation matrix and the criteria upon which Weston & Sampson scored and ranked the sites. The following is an explanation of each of the criteria used in the site scoring matrix:

##### 1. Location

- 1a. Fire Response Time (five points): Fire response time is for the Fire Department Engine 3 that is currently part of the program of the existing Police HQ and is proposed to be part of the new Police HQ. Fire response times were estimated by the City's SomerStat Office of Innovation and Analytics using a drive-time analysis methodology. The response times were provided for each of the proposed sites which were determined to be capable of fitting the Fire Department Engine 3 program. For those sites that would not fit Engine 3, scoring was based on existing response times from the current Union Square location. However, as the 2016 Carlson Fire Group study noted, development pressure in the Union Square area suggests that response times from the current location may increase in the future due to increased population and vehicle traffic. The maximum score of five for this criterion was given to sites for which 90% or more calls had an estimated response time of 5 minutes or less.
- 1b. Community Visibility/Connection (five points): Community visibility is a more subjective criterion for scoring sites that takes into account the importance of the Police HQ to be visible and connected to the community. Sites that scored high on this criterion had adjacency to significant thoroughfares, community centers or squares, and a shape and orientation to allow for locating the building, particularly the public portion, toward public areas such as a main street or square.
- 1c. Site Access (five points): The criterion of site access covers 1) vehicular access to the community for police and fire emergency response; and 2) pedestrian/public transportation access to the site for public services provided by the departments.

##### 2. Physical Features

- 2a. Size of Usable Site (five points): The usable site size was determined based on the full lot size and the maximum percent lot coverage allowed by zoning. Sites with usable area larger than 1.0 acres received a score of five.

- 2b. Shape of Site (five points): Scoring for this criterion was determined both from the physical shape of the site and test fitting of a conceptual site layout of the proposed program. Generally, sites that scored high in this category had a contiguous, regular shape, and a ratio of length to width closer to one.
- 2c. Fit Engine 3 (five points): The criterion of fitting the Fire Department Engine 3 was determined by test fitting a conceptual plan of the proposed Police/Fire program. The site size and shape needed to allow the additional ground-floor space for the Fire apparatus program, including apron/turn around space and safe access to the street for emergency response.

### 3. Zoning Consistency

- 3a. Proximity to Residential District (five points): While criterion 1b (Community Connection) measured connection to the community, this criterion scored sites for their distance from dense residential districts. The assumption for this criterion is that a large development, such as the new Police HQ, may be disruptive in the middle of, or immediately adjacent to, a residential neighborhood, and that a commercial or industrial district would be better suited to absorb such a project.
- 3b. Allowed Area Coverage (five points): While similar to criterion 2a (Site Size), this criterion specifically gives higher scores to sites in less restrictive zoning districts, whose allowable lot coverage is higher.

### 4. Environmental Impacts

- 4a. Presence of Receptors (five points): Sites were scored for the presence of Human and Environmental receptors. Human receptors include areas near or on the proposed site that the proposed project could affect, including public drinking water supplies, surface water protection areas, historic districts, etc. Environmental receptors include perennial and intermittent streams, wetlands and vernal pools, endangered or rare species habitats, and flood zones.
- 4b. Hazardous Materials Issues (five points): The potential presence of hazardous materials was determined for scoring based on preliminary review of Massachusetts DEP public records for hazardous materials releases.

### 5. Infrastructure

- 5a. Availability of Utilities (five points): While typically this criterion has some variability in smaller communities, the density of the City of Somerville ensures that availability of utilities (electrical, gas, public water/sewer, etc.) is uniform across all sites. In order to illustrate this, it was decided that this criterion remain despite scoring equally for all sites.

### 6. Permitting

- 6a. Permitting (five points): Sites that require complex and lengthy permitting due to zoning scored lower. Because all sites require a Site Plan Review and Special Permit for a municipal facility,

all sites scored a two out of five. In order to illustrate this, it was decided that this criterion remain despite scoring equally for all sites.

## 7. Traffic Impacts

7a. Traffic Impacts (five points): Scoring was determined by analysis of surrounding roads and intersections based on emergency response of Police and Fire vehicles. This was a professional opinion determination and was not based on a detailed traffic study.

## 8. Cost of Development

8a. Existing Structures (five points): Sites with dense existing structures scored lower based on the assumption that the removal of the existing structures is necessary for the proposed new facility and demolition will add to the overall cost.

8b. Existing Tenants/Owners (five points): The existence of multiple tenants on the site would increase the level of disruption to tenants/owners and add to the overall project cost due to legal and other fees associated with terminating leases and/or relocating tenants. Sites with single or no tenants scored highest.

8c. Site Assessment Cost (five points): Since all the potential sites are privately owned, the cost of purchasing the site will have to be factored into the overall project cost. Scoring for this criterion was determined from a dollar per acre value based on the assessed value and the overall lot size for each site. Sites with the highest cost per acre received the lowest scores.

## 3.2 Site Scoring and Ranking

Using the established criteria described above, the six sites were scored and ranked in a matrix (see Appendix B).

Site 6, 90 Washington Street, scored highest with a score of 74% (63 out of 85). The full list of site scoring is as follows:

Rank	Site No. / Address	Percent Score (raw score)
1	Site 6 (90 Washington Street)	74% (63 out of 85)
2	Site 2 (17 McGrath Highway)	69% (58 out of 85)
3	Site 3 (185 Somerville Ave)	67% (57 out of 85)
4	Site 4 (501 Mystic Valley Parkway)	66% (56 out of 85)
5	Site 5 (526 Somerville Ave)	61% (52 out of 85)
6	Site 1 (17 Inner Belt Road)	59% (50 out of 85)

Site scoring determinations for each criterion explained in narrative form are included in Appendix B.

**APPENDIX A**

Programming Matrix and Space Needs Sheets





# Somerville Police Department

Space Needs Assessment v1.2

December 6, 2016

**KAESTLE BOOS**  
associates, inc

Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
<b>Public Areas</b>								
Vestibule		0	1	100 sf	100 sf			
Lobby/Waiting		10	1	500 sf	500 sf			1848 sf
Public Toilets		0	2	200 sf	400 sf			
Public Interview		2	2	100 sf	200 sf			
Firearm Permit		2	1	80 sf	80 sf			
<b>Public Total:</b>						<b>1280 sf</b>		<b>1848 sf</b>
<b>Communications Center</b>								
Public Info. Counter		0	1	40 sf	40 sf			
Patrol Desk Officers		2	1	240 sf	240 sf		main public interface directly adjacent to lobby; monitor building & traffic cameras	
Patrol Lt. Commander		1	1	180 sf	180 sf		located directly adjacent to Dispatch; shared workstation; (5) vertical file cabinets	154 sf
Weapons Storage		1	1	25 sf	25 sf		long gun storage	
Patrol Sergeants		1	1	160 sf	160 sf		shared workstation; (6) vertical file cabinets	88 sf
Dispatch/ 911 Center		4	1	700 sf	700 sf		Black box, no public interaction, adjacent to Commander	273 sf
Locker Room		16	1	80 sf	80 sf		currently 14 staff	
Unisex Toilet		1	1	65 sf	65 sf			
Break Room		3	1	105 sf	105 sf			
Supply Storage		3	1	25 sf	25 sf			
Coat Closet		3	1	15 sf	15 sf			
Server/ Equip. Room		0	1	300 sf	300 sf		Current design has 5 server racks for 911, station network & servers, access control, CCTV (city intersections, Building); located adjacent to Desk Officer	96 sf



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Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
E911 Equip. Room	6.4	0	1	60 sf	60 sf		May be cage added into above	
Access Control Maint.	6.8	0	1	150 sf	150 sf		Located near lobby / Camera & Access control for entry. Does not need to be accessible from Departments secure area.	108 sf
<b>Communications Center Total:</b>						<b>2145 sf</b>		<b>719 sf</b>



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Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
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### Records/Data Processing

							located directly off lobby	
Public Info. Counter	6.3	0	1	40 sf	40 sf			
Records Clerk	2.2	2	1	150 sf	150 sf		both workstations can see window to lobby	108 sf
File Area	6.7	0	1	120 sf	120 sf		HD File (2 years)	
Work/Copy Room	6.6	0	1	100 sf	100 sf			
Supply Storage	6.2	0	1	25 sf	25 sf			
Archives	14.3	0	1	360 sf	360 sf		May be in Lower Level, HD Storage (Long term, 7 yr statute of limitations)	
<b>Records/Data Processing Total:</b>						<b>795 sf</b>		<b>108 sf</b>

### Training/ Community Meeting Facility

Training/Community Mtg.	3.2	50	1	1250 sf	1250 sf			1200 sf
Training Lieutenant	1.5	1	1	180 sf	180 sf		close to Community / Training room (secure side); meeting table for (4)	270 sf
File/Copy Area	6.5	0	1	80 sf	80 sf			
Patrol Equip. Storage	14.1	0	1	250 sf	250 sf		adjacent to Lieutenant's Office	
Honor Guard Storage	6.3	0	1	40 sf	40 sf			
RAD Storage	6.4	0	1	60 sf	60 sf			
Table and Chair Storage	6.7	0	1	120 sf	120 sf			
A/V Equipment Storage	6.3	0	1	40 sf	40 sf			
Kitchenette	6.6	0	1	100 sf	100 sf			
Coat Closet	6.4	0	1	60 sf	60 sf			
<b>Training Facilities Total:</b>						<b>2180 sf</b>		<b>1470 sf</b>

### Command / Administration

#### Command Staff

Visitor waiting/Reception	6.4	2	1	120 sf	120 sf		intern as greeter	260 sf
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# Somerville Police Department

## Space Needs Assessment v1.2

December 6, 2016

**KAESTLE BOOS**  
associates, inc

Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Administrative Assistant	1.3	1	1	140 sf	140 sf		separate office; vision to front door	143 sf
Chief	1.11	1	1	325 sf	325 sf		Adjacent to Conference room; meeting table for (6)	
Deputy Chief	1.9	1	2	275 sf	550 sf		(1) Operations, (1) Support; Adjacent to Chief's Office; soft meeting area	579 sf
Prof. Standards (Lt.)	2.5	2	1	240 sf	240 sf		meeting table for (3); (5) vertical files	225 sf
E911 Room	6.5	1	1	80 sf	80 sf		secured; direct access to Professional Standards Office	
Chief's Aide (Sgt.)	1.4	1	1	160 sf	160 sf		close proximity to Chief's Office; meeting table for 4	
Homeland Security (Sgt.)	1.4	1	1	160 sf	160 sf		can be anywhere in building	169 sf
Crime Analysis	2.2	3	1	225 sf	225 sf		(2) analysts & (1) intern	226 sf
Conference Room	3.2	12	1	300 sf	300 sf			
File Room	6.6	0	1	100 sf	100 sf		personnel files; (6) lateral files	
Coffee/Break Room	3.4	5	1	175 sf	175 sf			96 sf
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf			
Supply Storage	6.4	0	1	60 sf	60 sf			
Coat Closet	6.1	0	3	15 sf	45 sf		within Chief & Deputy Chief's offices	
<b>Command Staff Total:</b>						<b>2780 sf</b>		<b>1698 sf</b>

### Administration

Admin Captain	1.7	1	1	225 sf	225 sf		meeting table for (6)	224 sf
Financial Analyst	1.4	1	1	160 sf	160 sf			198 sf
Payroll Clerk	1.4	1	1	160 sf	160 sf		(2) lateral files	176 sf
Detail Office	2.5	2	1	240 sf	240 sf		(2) workstations; meeting table for 6; large copier	156 sf
Supply Storage	6.4	0	1	60 sf	60 sf			60 sf
<b>Administration Total:</b>						<b>845 sf</b>		<b>814 sf</b>

### Emergency Operation Center

internal location



# Somerville Police Department

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associates, inc

Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
E.O.C. Meeting	3.3	15	1	450 sf	450 sf			396 sf
Technology Storage	6.2	1	1	25 sf	25 sf			
Coat Closet	6.1	1	1	15 sf	15 sf			
<b>Emergency Operation Center Total:</b>						<b>490 sf</b>		<b>396 sf</b>

### Special Operations

Special Ops Office	2.5	2	1	240 sf	240 sf	(1) Lieutenant; (1) Sergeant	476 sf
K-9 Officer	2.3	2	1	180 sf	180 sf	shared workspace	
Animal Control Officers	2.3	2	1	180 sf	180 sf	located close to Dispatch	
Animal Control Stor.	6.3	2	1	80 sf	80 sf		
<b>Special Ops. Total:</b>						<b>680 sf</b>	<b>476 sf</b>

### Auxiliary Police

Auxiliary Police Office	2.3	4	1	360 sf	360 sf	(4) 4 drawer File Cabinets access from corridor to use for hearings	224 sf
Conference Room	3.3	6	1	180 sf	180 sf		
Supply Storage	6.3	0	1	40 sf	40 sf		
<b>Auxiliary Police Total:</b>						<b>580 sf</b>	<b>224 sf</b>



# Somerville Police Department

Space Needs Assessment v1.2

December 6, 2016

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Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
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## Information Technology/Social Media Support

IT Office/ Workroom	2.3	3	1	270 sf	270 sf			255 sf
Testing/Burn-in/Parts	6.7	0	1	120 sf	120 sf			
Equipment Storage	6.5	0	1	80 sf	80 sf			
Network Equipment Rm	6.6	2	1	200 sf	200 sf		Part of overall E911 / network equipment room. Separate with wire partitions.	
IDF Closets	6.2	0	3	25 sf	75 sf			
<b>IT Support Total:</b>					<b>745 sf</b>			<b>255 sf</b>

## Community Outreach Help and Recovery (COHR)

Visitor waiting/Reception	6.4	2	1	120 sf	120 sf		Direct access to Training/ Community Room	
COHR Office	2.3	3	1	270 sf	270 sf		visible & accessible to Lobby	272 sf
Director's Office	1.5	1	1	180 sf	180 sf		4 file cabinets	
Jail Diversion Coord.	1.4	1	1	160 sf	160 sf		meeting table for (4)	
Conference Room	3.3	6	1	180 sf	180 sf			
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf			
Supply Storage	6.4	0	1	60 sf	60 sf		for event/promotional items	
Coat Closet	6.1	0	1	15 sf	15 sf			
<b>COHR Total:</b>					<b>1085 sf</b>			<b>272 sf</b>



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associates, inc

Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
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## Criminal Investigative Bureau

Visitor Waiting/Reception	6.3	2	1	80 sf	80 sf			
Detective Clerk	1.2	1	1	120 sf	120 sf		Clerk is greeter; semi-private from Investigations Office; direct access to Conference Room	180 sf
Criminal Invest. Captain	1.7	1	1	225 sf	225 sf			225 sf
Lieutenant Detectives	2.5	1	2	120 sf	240 sf			225 sf
Forensics Office	2.3	2	1	180 sf	180 sf		(1) Sergeant Detective & (1) Detective	225 sf
Court Sgt. Detective	1.4	1	1	160 sf	160 sf			72 sf
Sergeant Detective	1.4	2	1	320 sf	320 sf			
Investigations Office	2.3	15	1	1350 sf	1350 sf			1240 sf
File Area	6.5	0	1	80 sf	80 sf			
Interview Rooms	5.2	3	2	90 sf	180 sf			63 sf
Media Review Room	6.6	1	1	100 sf	100 sf			
Conference Room	3.2	16	1	400 sf	400 sf		Used for roll call, raid planning, FBI / DEA collaboration (fusion room?)	176 sf
Secure File Room	6.7	0	1	120 sf	120 sf			63 sf
Coffee/ Break Room	3.4	6	1	210 sf	210 sf			
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf			
Equipment Storage	6.6	0	1	100 sf	100 sf			96 sf
Supply Storage	6.2	0	1	25 sf	25 sf			
Coat Closet	6.2	0	1	25 sf	25 sf			
<b>Criminal Investigations Total:</b>					<b>4015 sf</b>			<b>2565 sf</b>

## Family Services

Visitor waiting/Reception	6.4	2	1	120 sf	120 sf		needs easily accessible, discreet entrance; close proximity to Detectives & Desk Officers	104 sf
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Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Fam. Services Office	2.3	4	1	360 sf	360 sf		workstations for (1) Sergeant Detective; (2) Detectives, & (1) Victim Advocate	169 sf
Interview	5.2	3	1	90 sf	90 sf		informal & comfortable	90 sf
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf		includes kitchenette	
Supply Storage	6.2	0	1	25 sf	25 sf		toys & supplies	
Coat Closet	6.1	0	1	15 sf	15 sf			
<b>Family Services Total:</b>						<b>710 sf</b>		<b>363 sf</b>





# Somerville Police Department

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Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
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### Narcotics Unit

Sergeant Detective	1.4	1	1	160 sf	160 sf			
Narc/Vice Det's. Office	2.3	7	1	630 sf	630 sf		includes location for DEA Liason	
Gang Det's. Offices	2.3	2	1	180 sf	180 sf			
File Room	6.5	0	1	80 sf	80 sf			
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf		includes kitchenette	
Supply Storage	6.2	0	1	25 sf	25 sf			
Coat Closet	6.1	0	1	15 sf	15 sf			
<b>Narcotics Total:</b>					<b>1190 sf</b>			<b>225 sf</b>

### Evidence and Property

							located directly adjacent to Sally Port & Detention	
Temp. Evidence Lockers	6.2	0	1	25 sf	25 sf		15"h x 15"W; located in Processing Room w/pass through to Receiving	
Evidence Det. Officer	1.3	1	1	140 sf	140 sf			120 sf
Evidence Rec./Process	6.9	0	1	200 sf	200 sf		includes drying cabinets	300 sf
Evidence Processing Labor	6.7	0	1	120 sf	120 sf			
Fingerprint/Photo Lab	6.8	0	1	150 sf	150 sf			
Evidence Storage	14.4	0	1	500 sf	500 sf			165 sf
Drug Storage	6.4	0	1	60 sf	60 sf			
Vault Storage	6.8	0	1	150 sf	150 sf		weapons & cash	105 sf
Found Property Holding	14.3	0	1	400 sf	400 sf		bulk property and bike storage	300 sf
<b>Evidence and Property Total:</b>					<b>1745 sf</b>			<b>990 sf</b>

### Patrol Operations

#### Patrol Facilities



# Somerville Police Department

Space Needs Assessment v1.2

December 6, 2016

**K**AESTLE BOOS  
associates, inc

Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
Roll Call (Squad) Room	3.2	30	1	750 sf	750 sf		Can be used as 2nd training room. Must have latest tech for display of information, tie to EOC for event coordination, quick access to cruiser parking; lounge area, copier	738 sf
Report Preparation	3.6	3	1	150 sf	150 sf		Located close to Shift Commander office, but does not need direct vision	120 sf
Armory	6.6	0	1	100 sf	100 sf		Ammunition storage, PD long & pistol storage	
<b>Patrol Facilities Total:</b>						<b>1000 sf</b>		<b>858 sf</b>



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Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
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## Community Police Officers

Comm. Police Office	1.2	1	1	120 sf	120 sf		communal workstation	
Bicycle Storage	6.1	10	1	150 sf	150 sf			
Supply Storage	6.2	0	1	25 sf	25 sf			
<b>Community Police Total:</b>					<b>295 sf</b>			

## Traffic Unit

Visitor waiting/Reception	6.3	2	1	80 sf	80 sf		can be located anywhere; some limited public access	
Citation Clerk	1.2	1	1	120 sf	120 sf		Clerk is greeter	143 sf
Traffic Lieutenant	1.5	1	1	180 sf	180 sf		2-3 meet across desk	170 sf
Traffic Sergeant	1.4	1	1	160 sf	160 sf		located off Clerks area	99 sf
Traffic Unit Office	2.3	10	1	900 sf	900 sf			460 sf
Interview/ Exam Room	5.3	3	1	90 sf	90 sf		for Hackney & Crossing Guards	
File Room	6.6	0	1	100 sf	100 sf		archive files	
Work/Copy/Mail Room	6.6	0	1	100 sf	100 sf		includes kitchenette	
Supply Storage	6.2	1	1	25 sf	25 sf			
Equipment Storage	6.6	1	1	100 sf	100 sf		for crossing guard equipment	
Coat Closet	6.1	1	1	15 sf	15 sf			
<b>Traffic Total:</b>					<b>1870 sf</b>			<b>872 sf</b>

## Marine Unit

Marine Unit Office	2.3	4	1	360 sf	360 sf			
<b>Traffic Total:</b>					<b>360 sf</b>			

## Prisoner Processing and Detention.

### Sally Port

Vehicle Sally Port Bay	11.3	0	2	525 sf	1050 sf		side x side	
Impound Vehicle Bay	11.3	0	2	525 sf	1050 sf		side x side	



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<b>Sally Port Total:</b>						<b>2100 sf</b>		<b>0 sf</b>



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<b>Prisoner Processing</b>								
Temporary Holding	5.1	8	1	200 sf	200 sf		Processing/booking desk is operated by shift commander. Patrolman stay with prison while being processed.	60 sf
Processing Room	13.3	3	1	240 sf	240 sf		located directly adjacent to Sally Port	216 sf
Prisoner Prop. Lockers	6.2	20	1	25 sf	25 sf		Sobriety line, freestanding metal detector, photo area 15"h x 15"W; located in Processing Room	
Booking Officer Room	13.3	1	1	80 sf	80 sf		separate room from prisoner; direct access to remainder of station without going through detention	72 sf
Finger./ Breath, Room	13.2	2	1	120 sf	120 sf		separate from processing; air conditioned space	160 sf
Prisoner Shower (Decon)	7.2	0	1	70 sf	70 sf			
Custodian Closet	6.4	0	1	60 sf	60 sf			
Linen Storage	6.2	0	1	25 sf	25 sf			
Interview Room	5.1	3	2	75 sf	150 sf			
Non-status Offender Rm.	5.4	1	1	60 sf	60 sf		Locate in patrol area	
Matron Area	13.5	1	1	120 sf	120 sf		desk, files, kitchenette	180 sf
Unisex Toilet	7.1	1	1	65 sf	65 sf			
Bondsman interface	5.1	2	1	50 sf	50 sf			
Release Vest. (man lock)	13.1	0	1	50 sf	50 sf			
<b>Prisoner Processing Total:</b>					<b>1315 sf</b>			<b>688 sf</b>
<b>Detention</b>								
Male Cells	10.2	1	14	120 sf	1680 sf			686 sf
Female Cells	10.2	1	3	120 sf	360 sf			147 sf
Juvenile Cells	10.2	1	2	120 sf	240 sf			112 sf
Handicapped Cells (M,F&J)	10.3	1	3	150 sf	450 sf			
Soft Cell (MH)	10.3	1	1	150 sf	150 sf			



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**Detention Total:**      **2880 sf** 2005 had cap.=19 2016 cap.=21      **945 sf**



# Somerville Police Department

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Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
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### Staff Support

#### Staff Facilities

Male Patrol Lockers	8.5	125	1	2250 sf	2250 sf		30"W x 24"D lockers	1216 sf
Male Superior Lockers	8.5	40	1	720 sf	720 sf		24"W x 24"D lockers	243 sf
Male Civilian Lockers	8.5	15	1	270 sf	270 sf		12"W x 12"D lockers; use Officer toilets & showers	
Male Toilets	7.5	0	1	240 sf	240 sf			
Male Showers	9.1	4	1	120 sf	120 sf			
Female Officer Lockers	8.5	24	1	432 sf	432 sf		30"W x 24"D lockers	442 sf
Female Civilian Lockers	8.5	15	1	270 sf	270 sf		12"W x 12"D lockers; use Officer toilets & showers	169 sf
Female Toilets	7.3	0	1	160 sf	160 sf			
Female Showers	9.1	2	1	60 sf	60 sf			
Break Room	3.2	16	1	400 sf	400 sf		full kitchen; have (4) vending machines; needs easily accessible central location	
Miscellaneous Toilets	7.1	1	4	65 sf	260 sf			
Patrol Union Office	2.3	2	1	180 sf	180 sf		SPEA	225 sf
Superior Officers' Union	1.2	1	1	120 sf	120 sf		SPSOA	88 sf
<b>Staff Facilities Total:</b>					<b>5482 sf</b>			<b>2383 sf</b>

#### Wellness/Training Facilities

Wellness Center	14.7	0	1	1600 sf	1600 sf		direct access to both Officer locker rooms	1050 sf
Equipment Storage	6.5	0	1	80 sf	80 sf			
FATS Training Room	14.5	0	1	600 sf	600 sf			644 sf
Control Room	6.5	0	1	80 sf	80 sf			
Firing Range	15.0	5	1	2200 sf	2200 sf		2 wide and 3 center x 75' long stations, could be outbuilding	
Control Room	6.5	0	1	80 sf	80 sf			
Staging/Gun Cleaning	6.7	0	1	120 sf	120 sf			
Armory	6.6	0	1	100 sf	100 sf			96 sf



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Area/Room Title	Rm. Type	Occupants	No. of Rms.	Rm. Area	Subtotal	Total	Interview Notes	Ex. Rm Area
<b>Wellness/Training Total:</b>						<b>4860 sf</b>		<b>1790 sf</b>

## General Storage

General Storage Room	6.8	0	1	150 sf	150 sf			
Archival Storage Room	14.2	0	1	300 sf	300 sf			
Quartermaster Storage	6.8	0	1	150 sf	150 sf			
<b>General Storage Total:</b>						<b>600 sf</b>		





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## Vehicle Support

### Vehicle Storage

Motorcycle Storage	6.3	8	1	320 sf	320 sf			
Motorcycle Supply Stor.	6.5	1	1	80 sf	80 sf			
Bicycle storage	6.1	10	2	150 sf	300 sf			
Traffic Trailer	6.5	2	1	160 sf	160 sf			
Liquid Storage	6.1	1	1	15 sf	15 sf			
Vehicle Storage Bay	11.1	30	1	9000 sf	9000 sf		below grade covered parking area	
<b>Vehicle Storage Total:</b>					<b>9875 sf</b>			<b>6500 sf</b>

## Building Support Facilities

### Facility Maintenance

Custodial Closets	6.2	0	5	25 sf	125 sf			
Custodial Workshop	6.7	0	1	120 sf	120 sf			
Equipment Storage	6.5	0	1	80 sf	80 sf			
Building + Supply Stor.	6.9	0	1	200 sf	200 sf			
<b>Facility Maintenance Total:</b>					<b>525 sf</b>			

### Vertical Circulation

Stairs		0	2	400 sf	800 sf			
Elevator		0	1	100 sf	100 sf			
Elevator Machine Room		0	1	60 sf	60 sf			
<b>Vertical Circulation Total:</b>					<b>960 sf</b>			

### Building Services

Laundry	6.5	0	1	80 sf	80 sf			
Mechanical Room		0	1	800 sf	800 sf			
Sprinkler Equipment	6.8	0	1	150 sf	150 sf			



# Somerville Police Department

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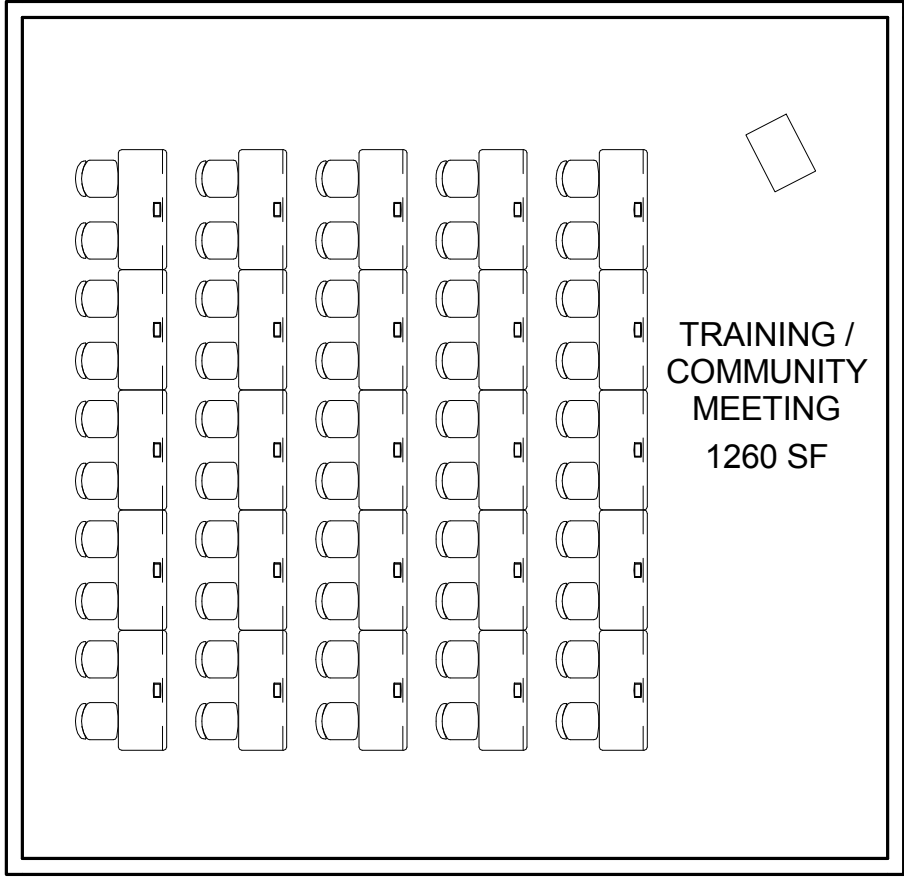
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Electrical Room	6.9	0	1	200 sf	200 sf			
Emerg. Electrical Room	6.5	0	1	80 sf	80 sf			
Emergency Generator		0	0	500 sf	0 sf		Outside? Roof?	
Air Handling Equipment		0	1	750 sf	750 sf			
<b>Building Services Total:</b>						<b>2060 sf</b>		

## Net to Gross Adjustment

Total Net Area					<b>55,447 sf</b>			<b>26,459</b>
Net to Gross Adjustment (Net Area x 0.40)					22,200 sf			

<b>Gross Area Total:</b>					<b>77,647 sf</b>			<b>66,000 sf</b>
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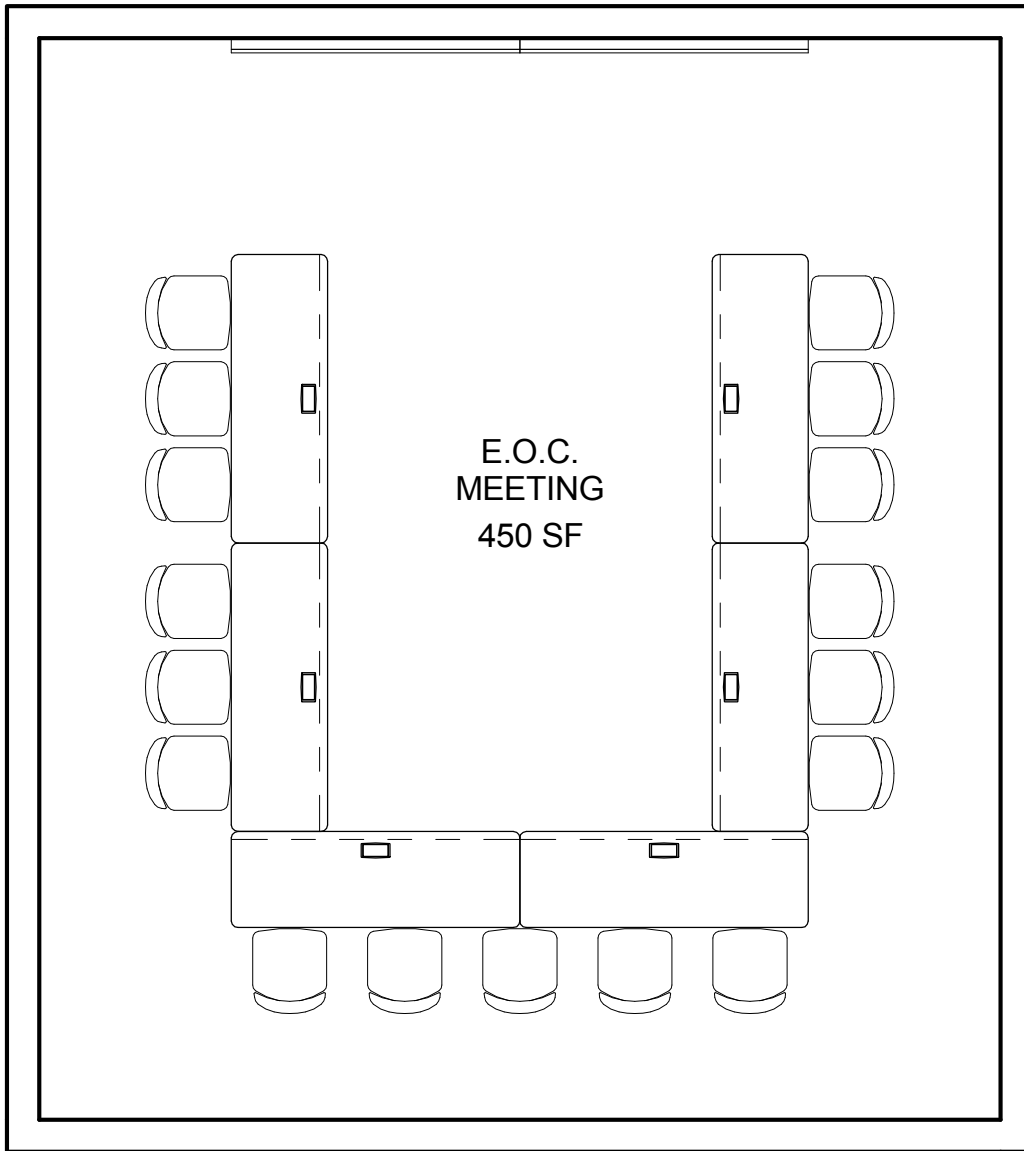
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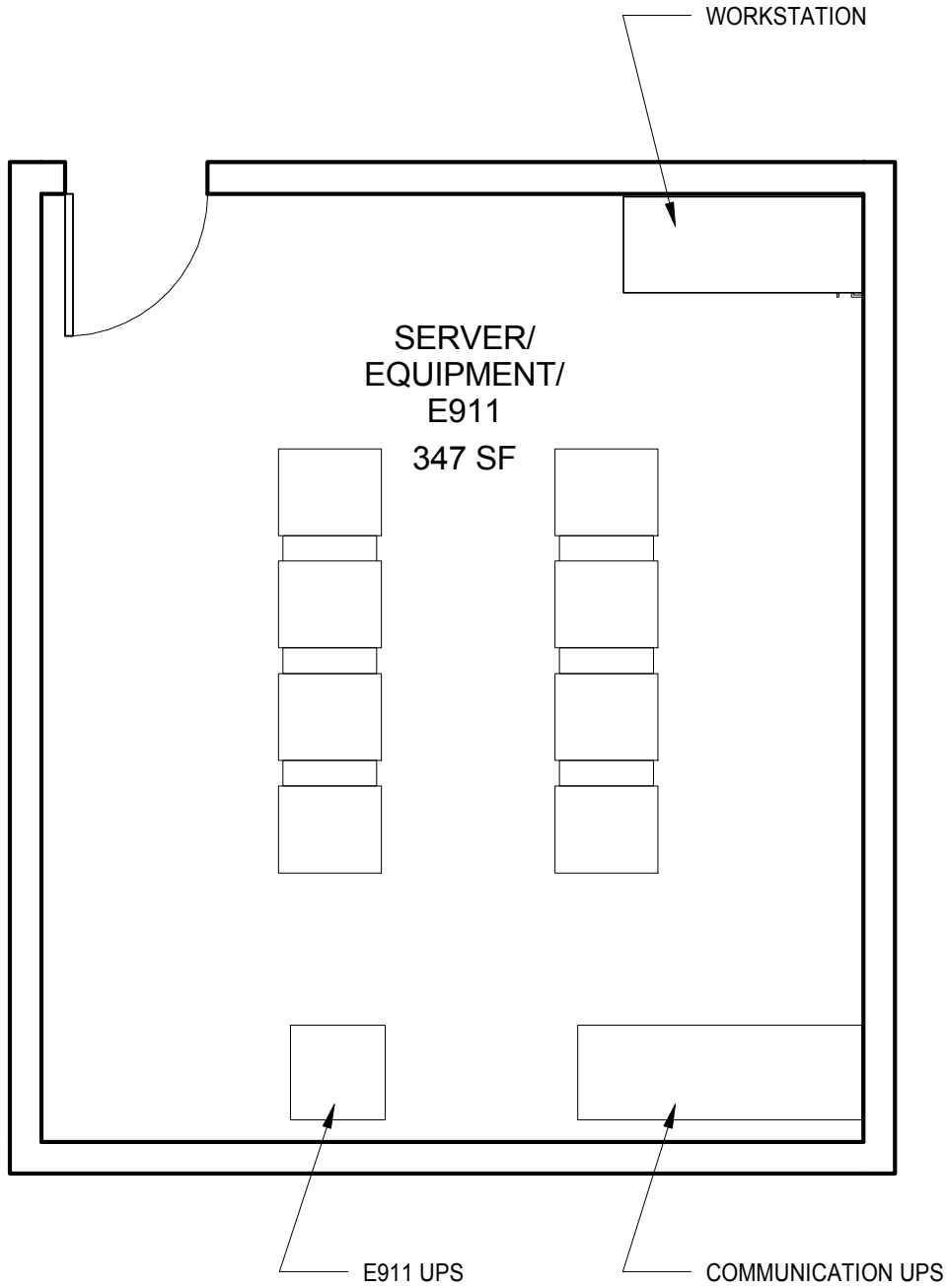
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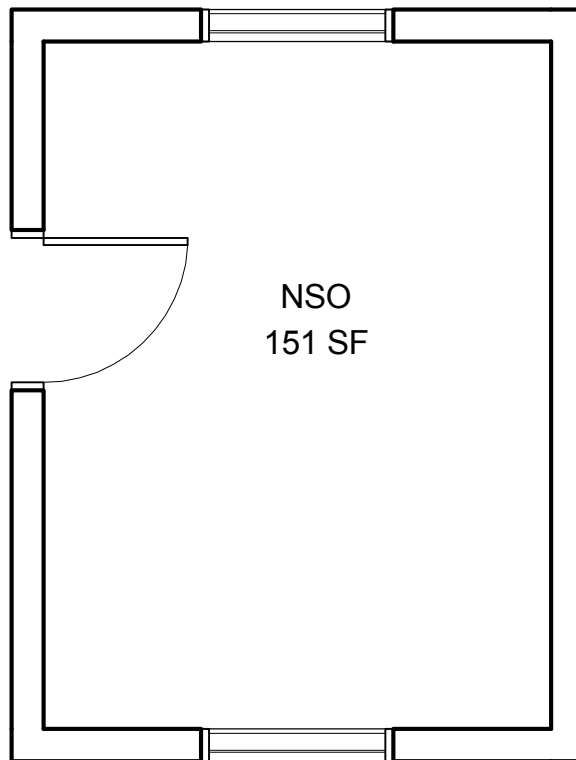
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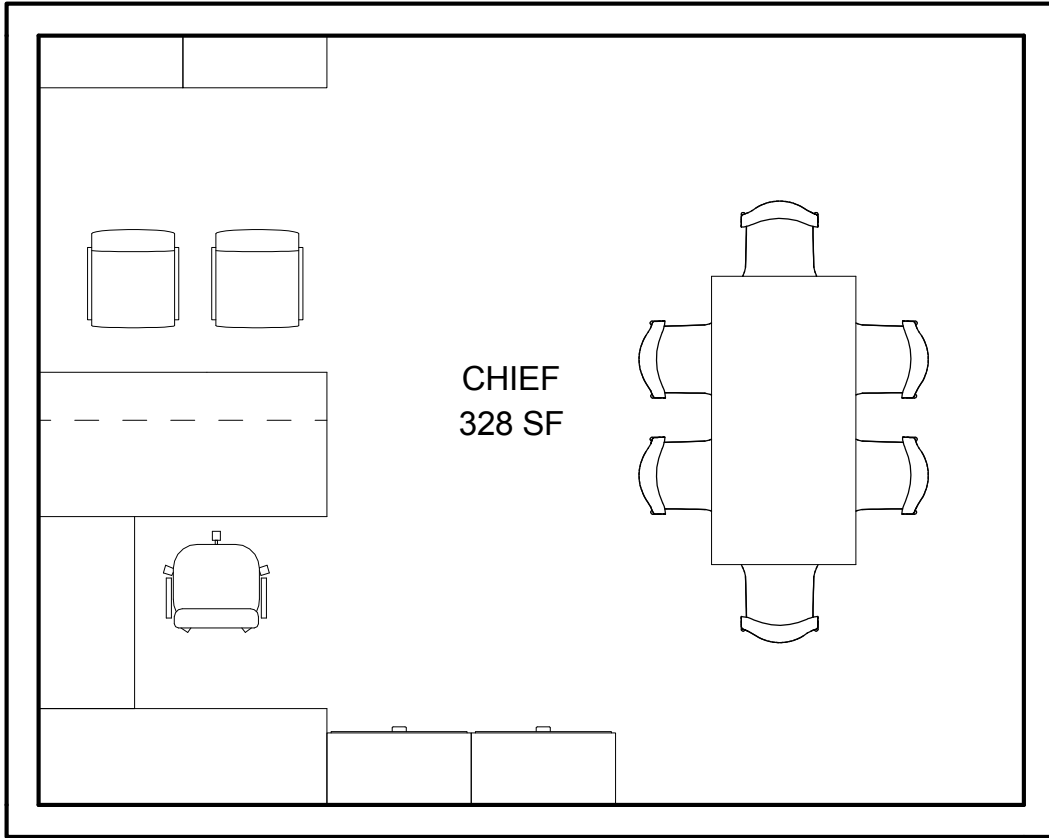
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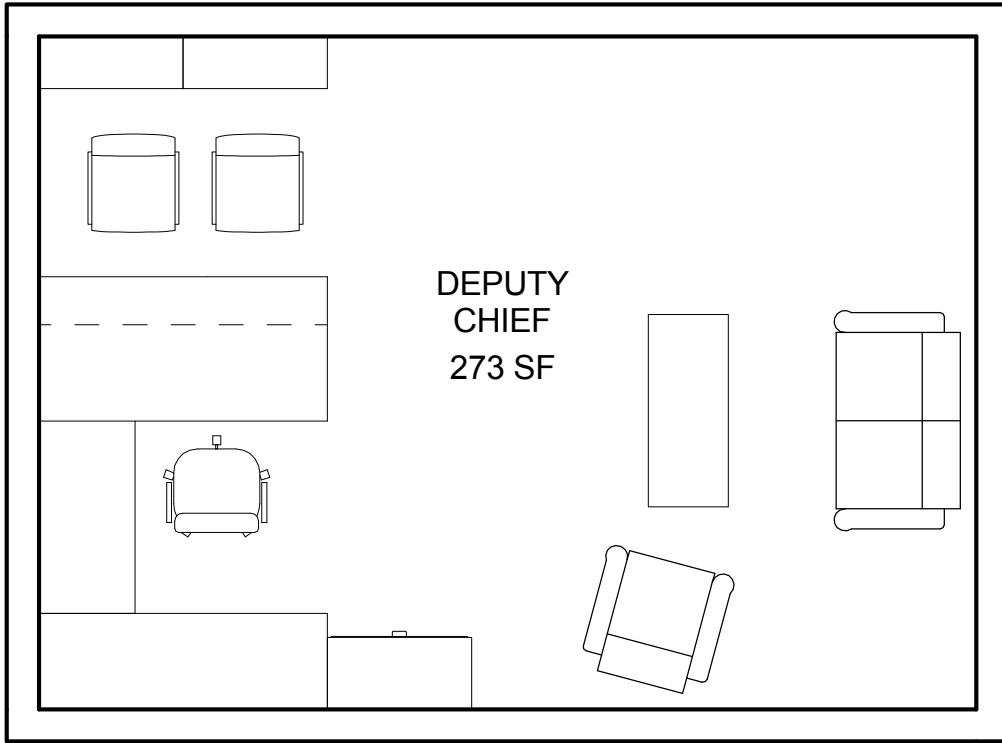
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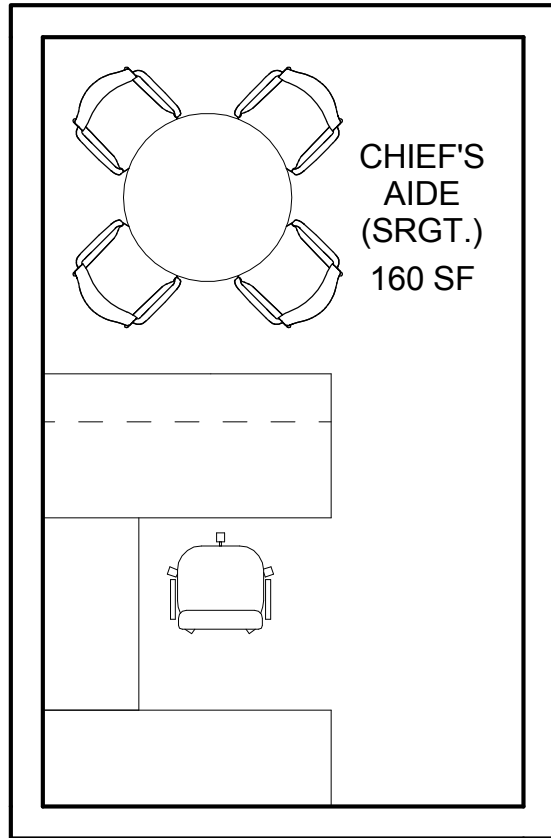
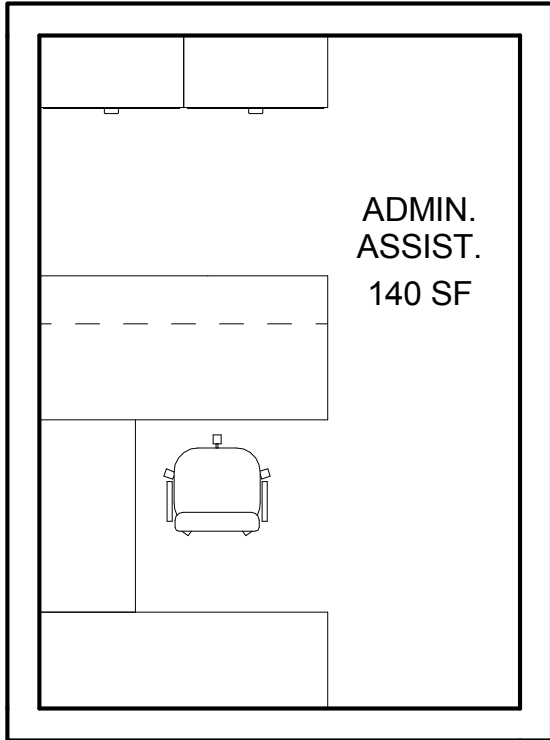
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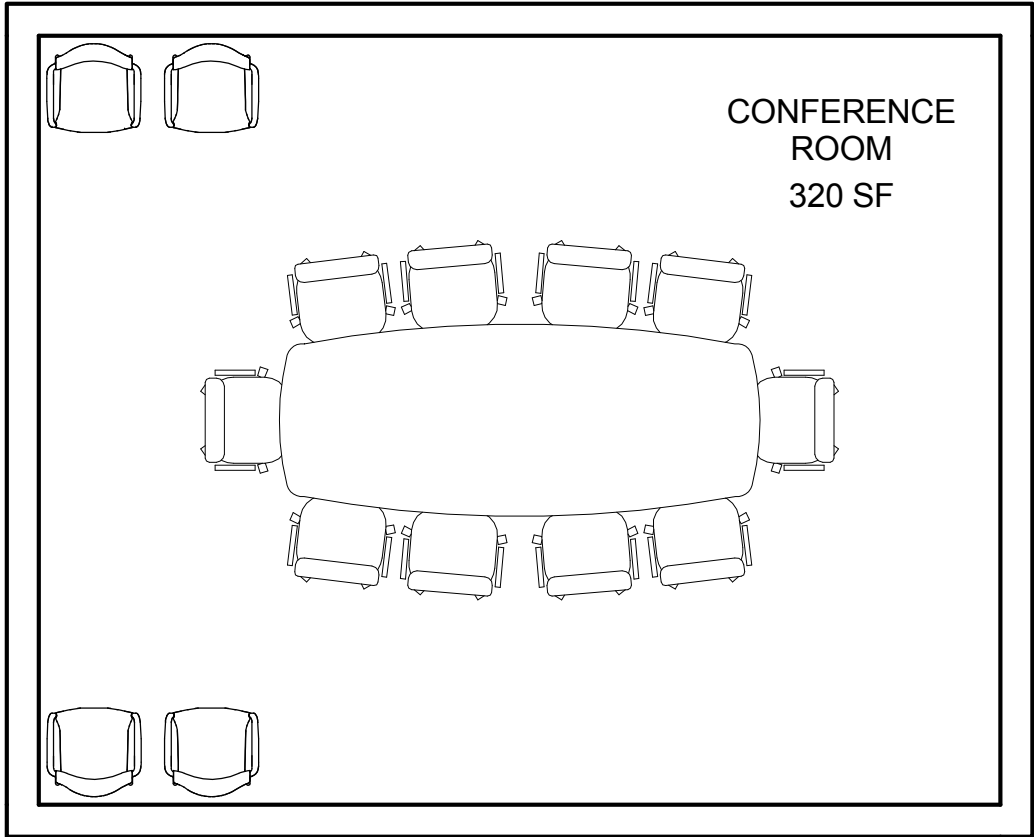
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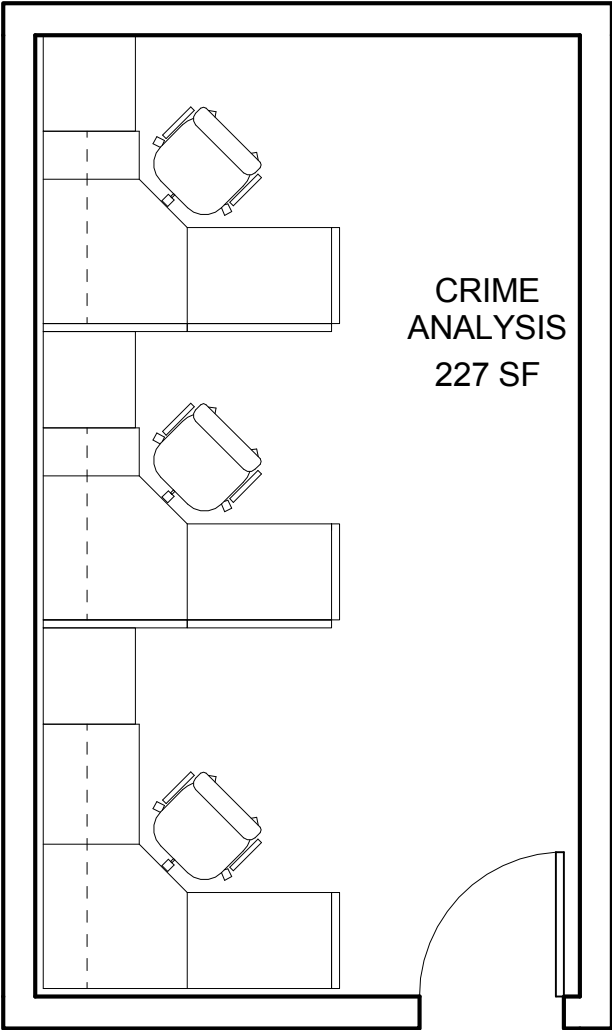
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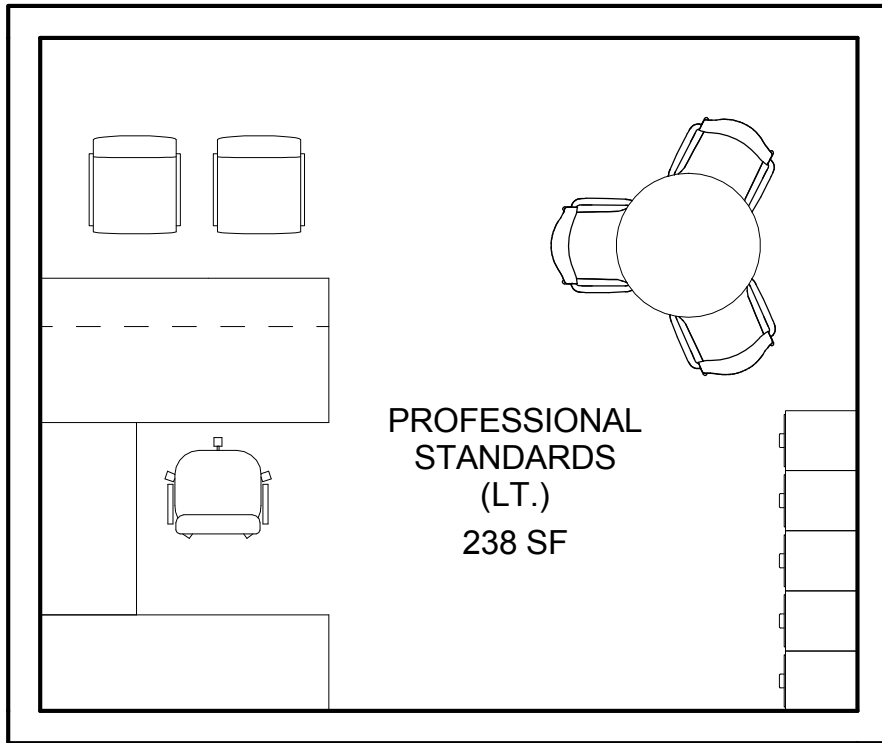
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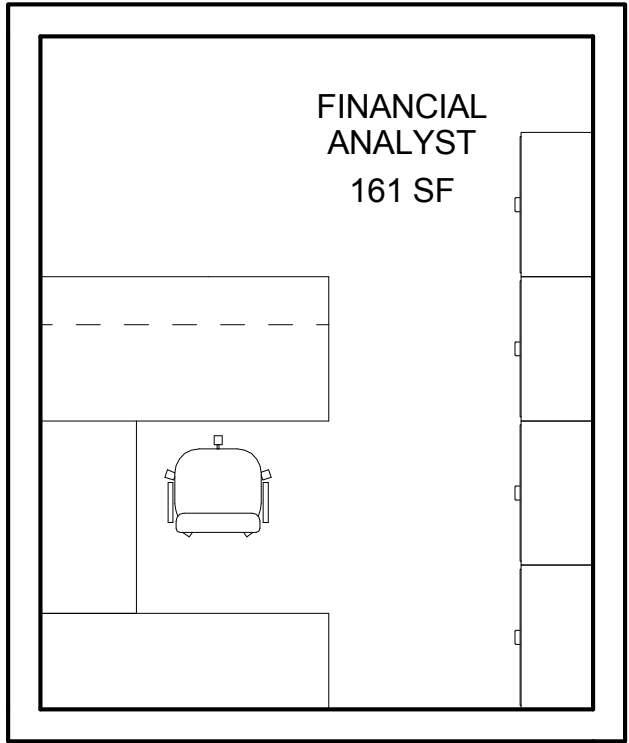
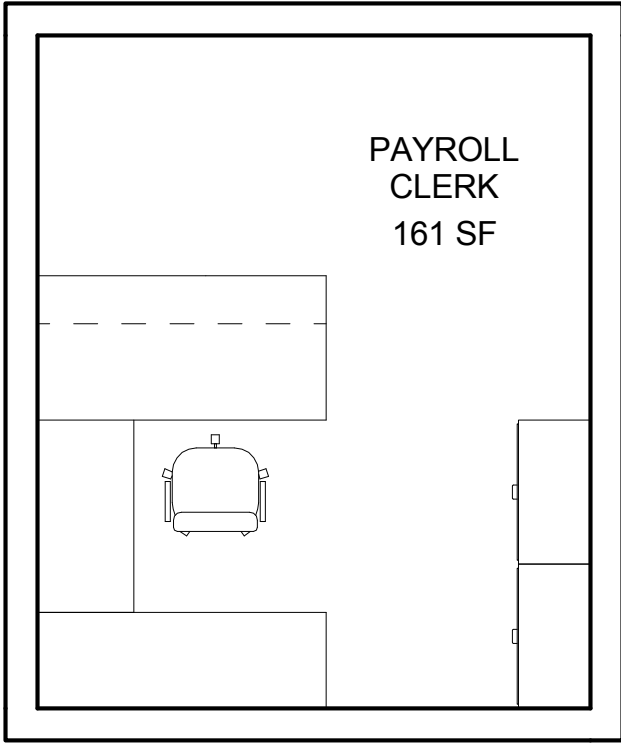
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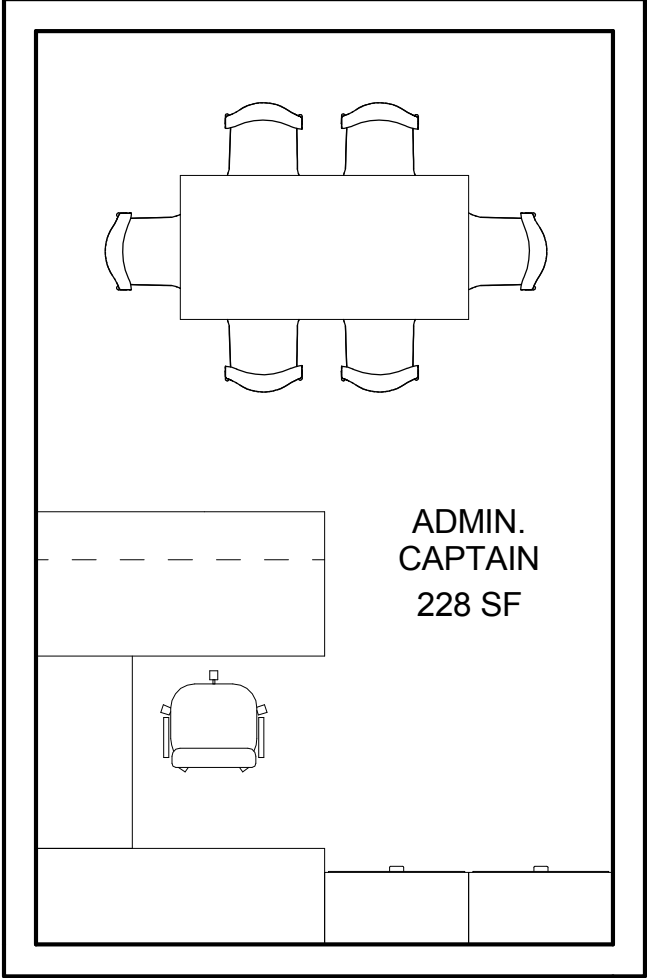
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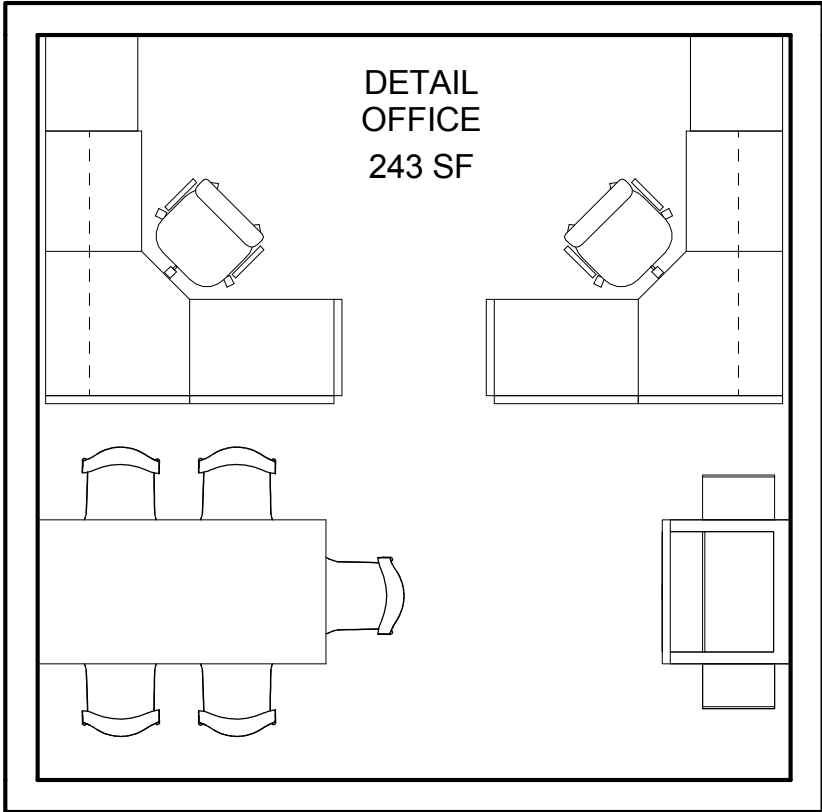
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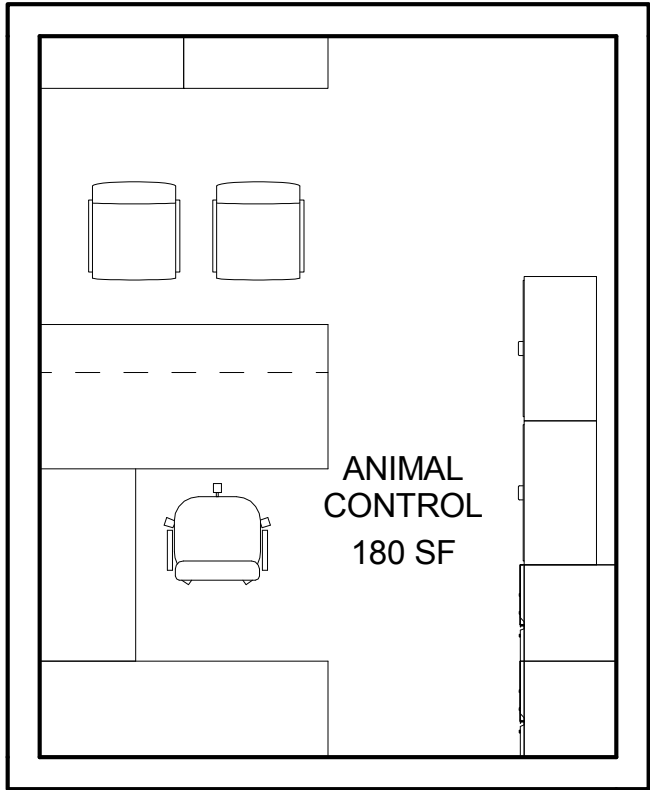
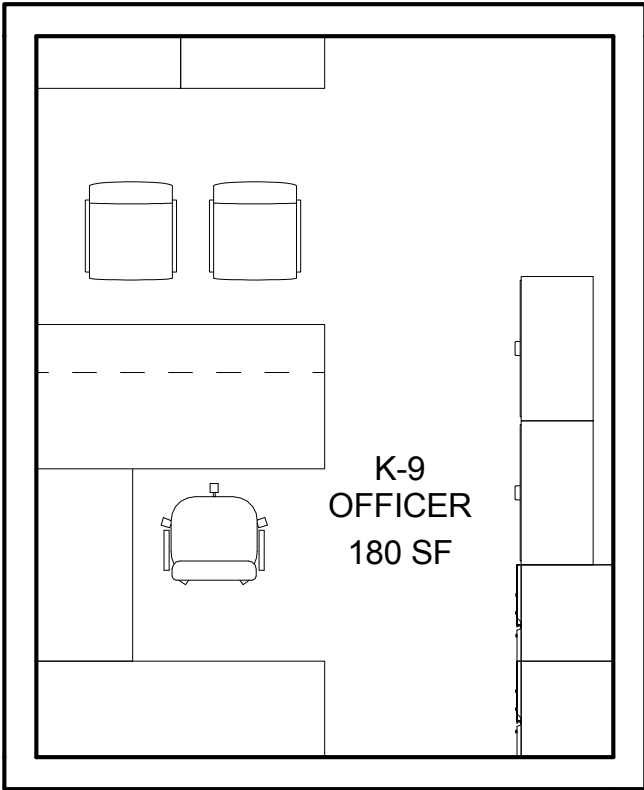
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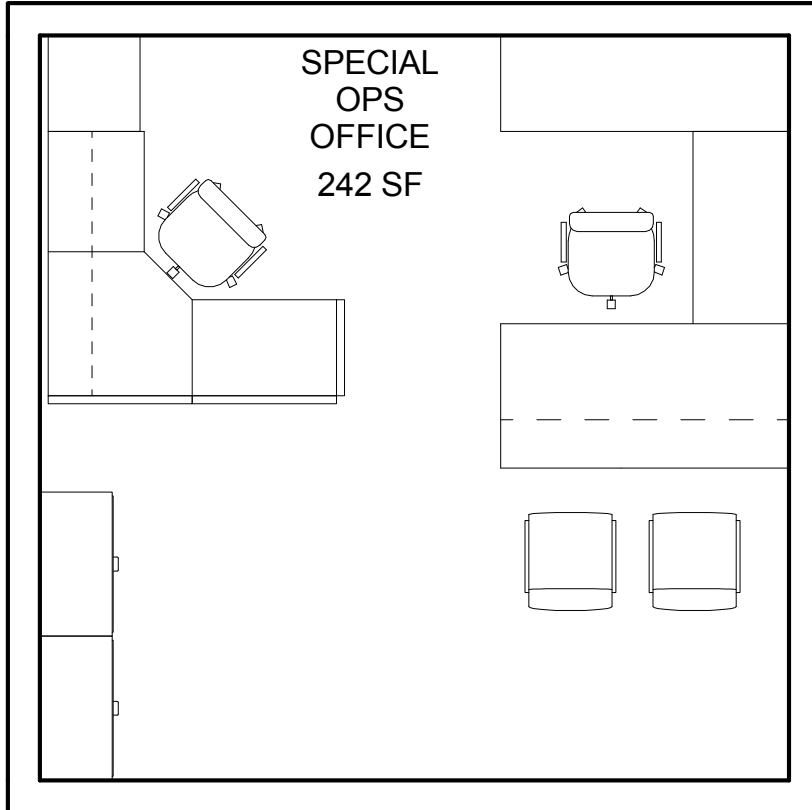
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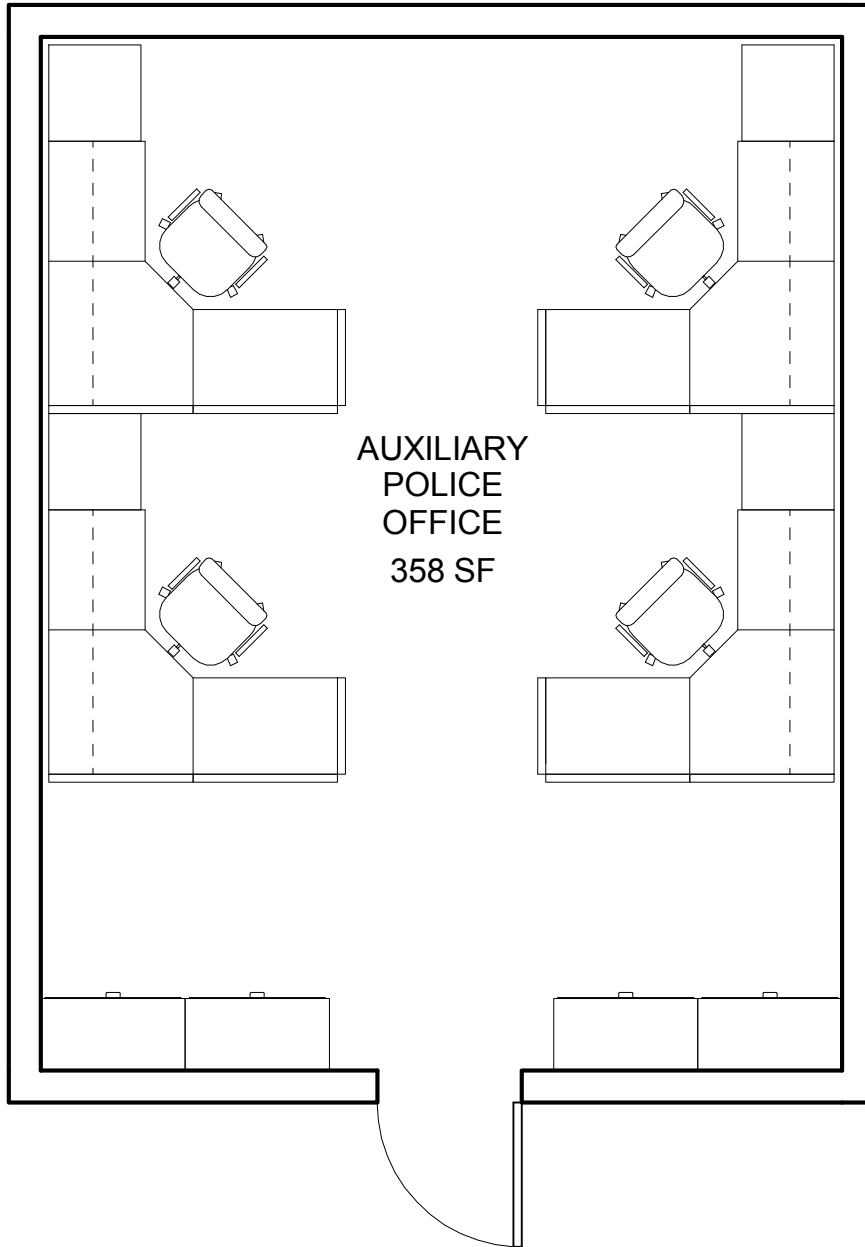
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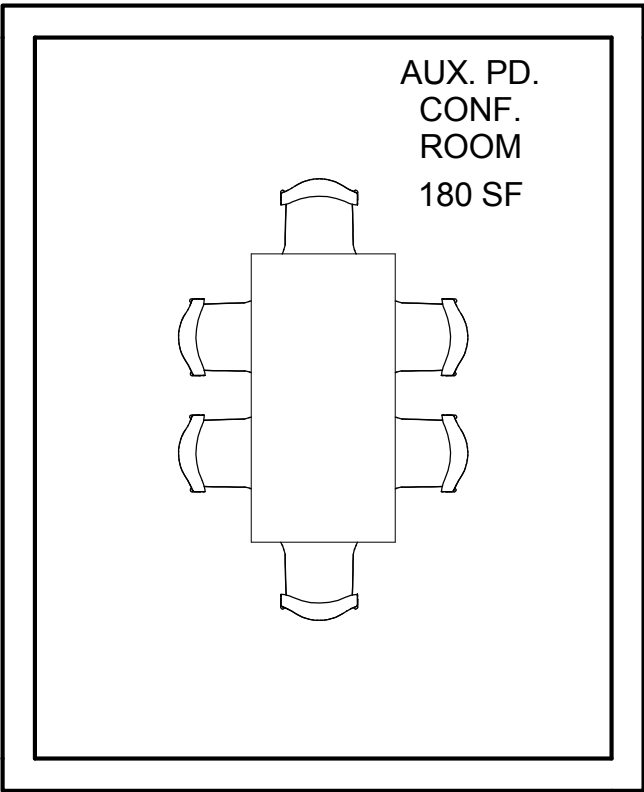
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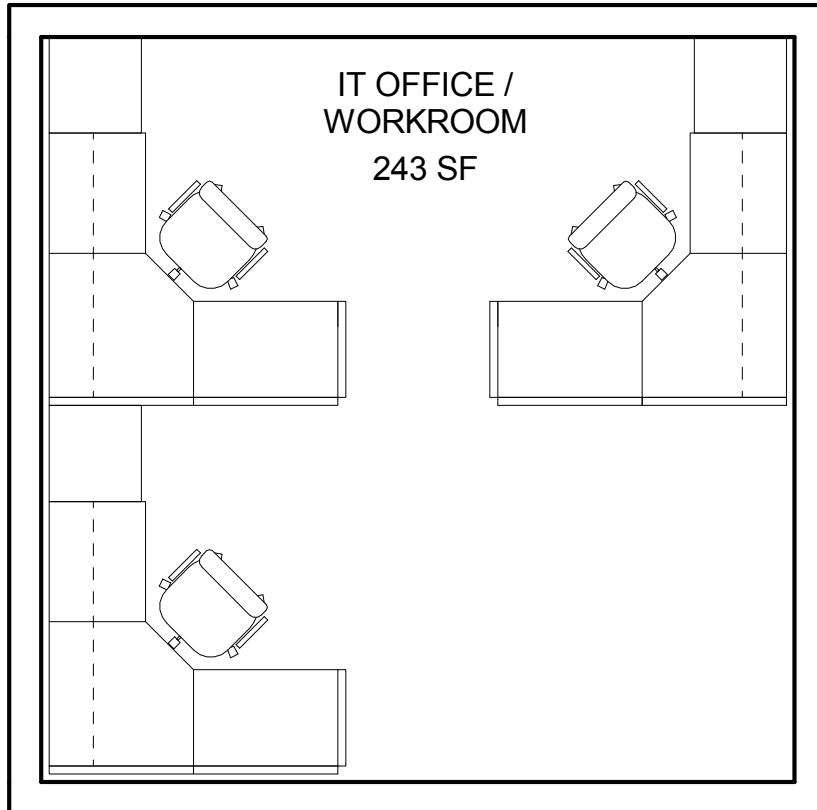
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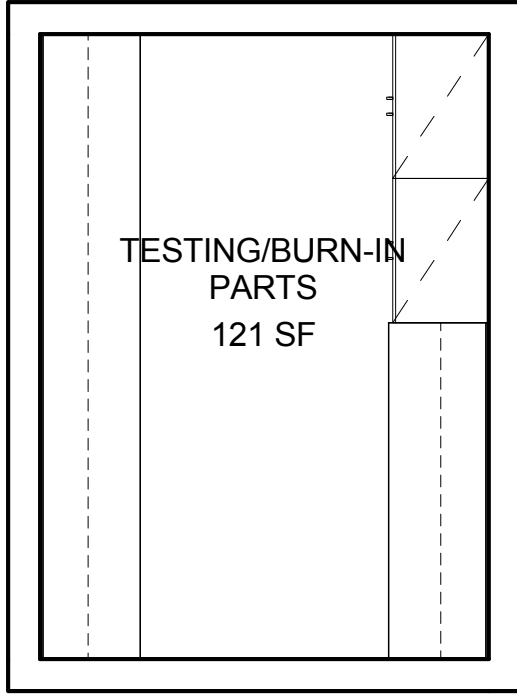
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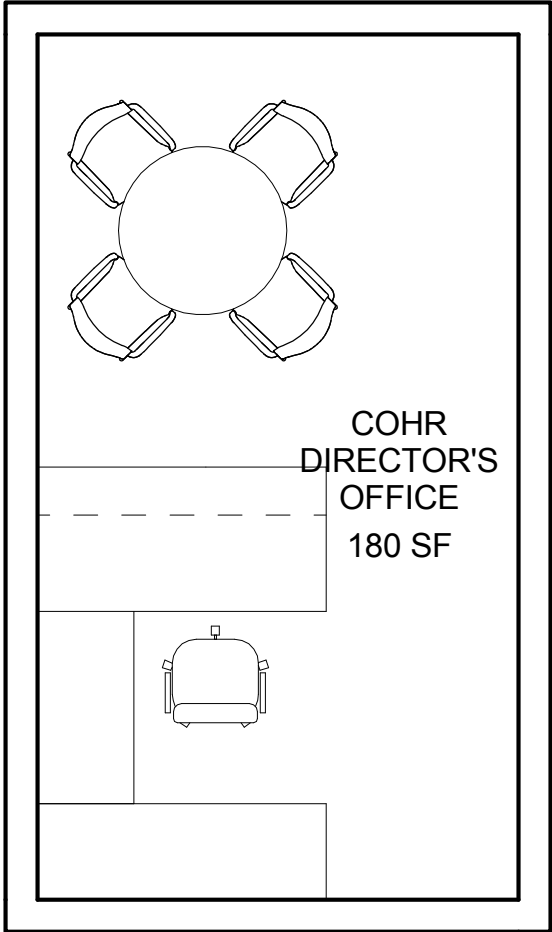
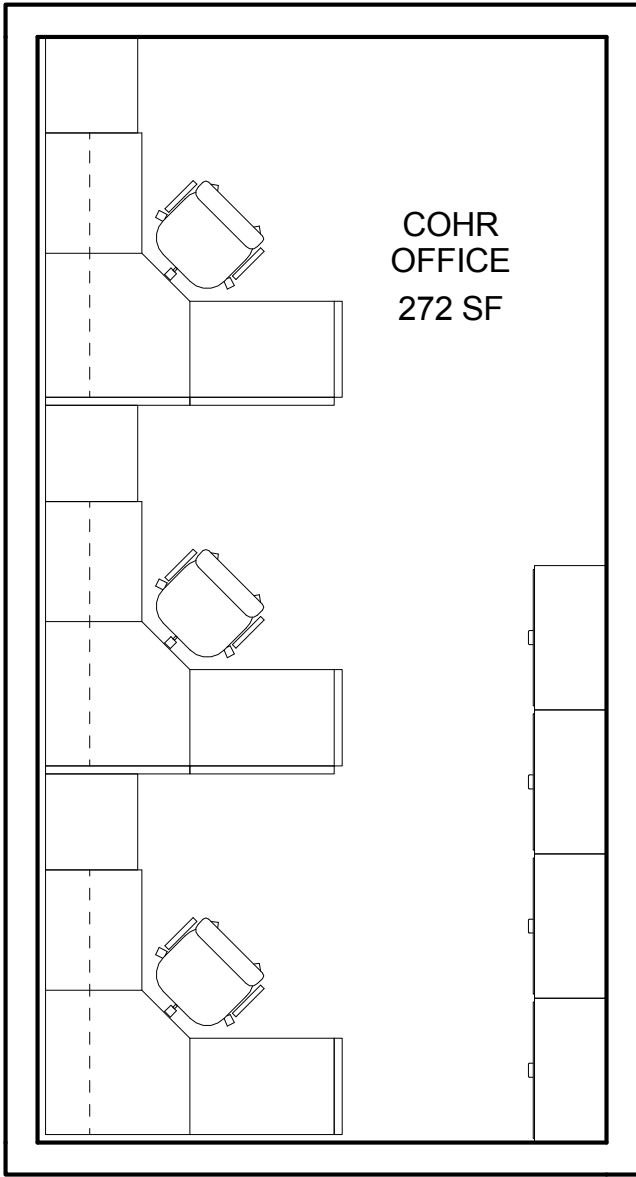
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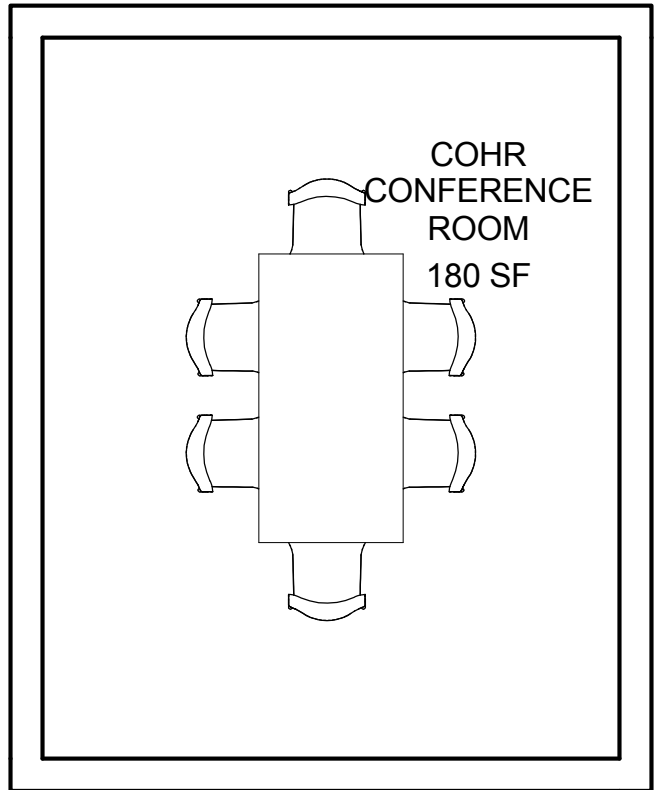
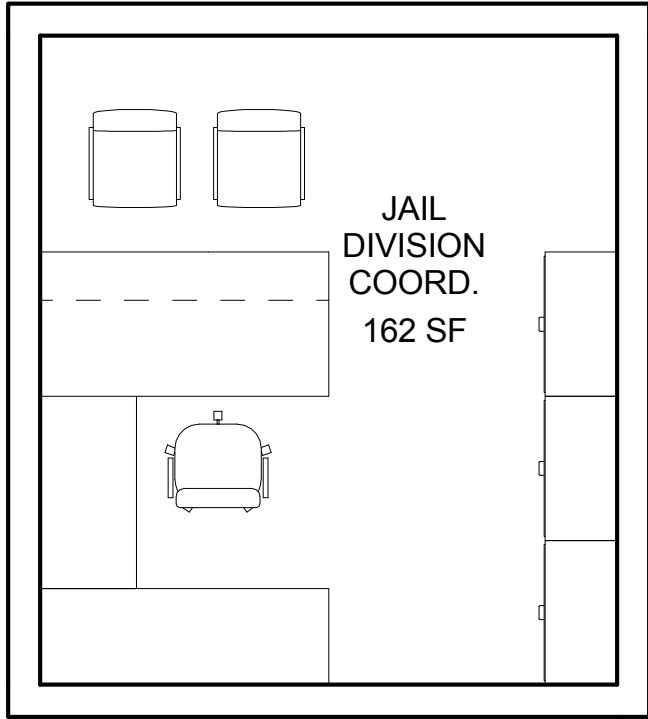
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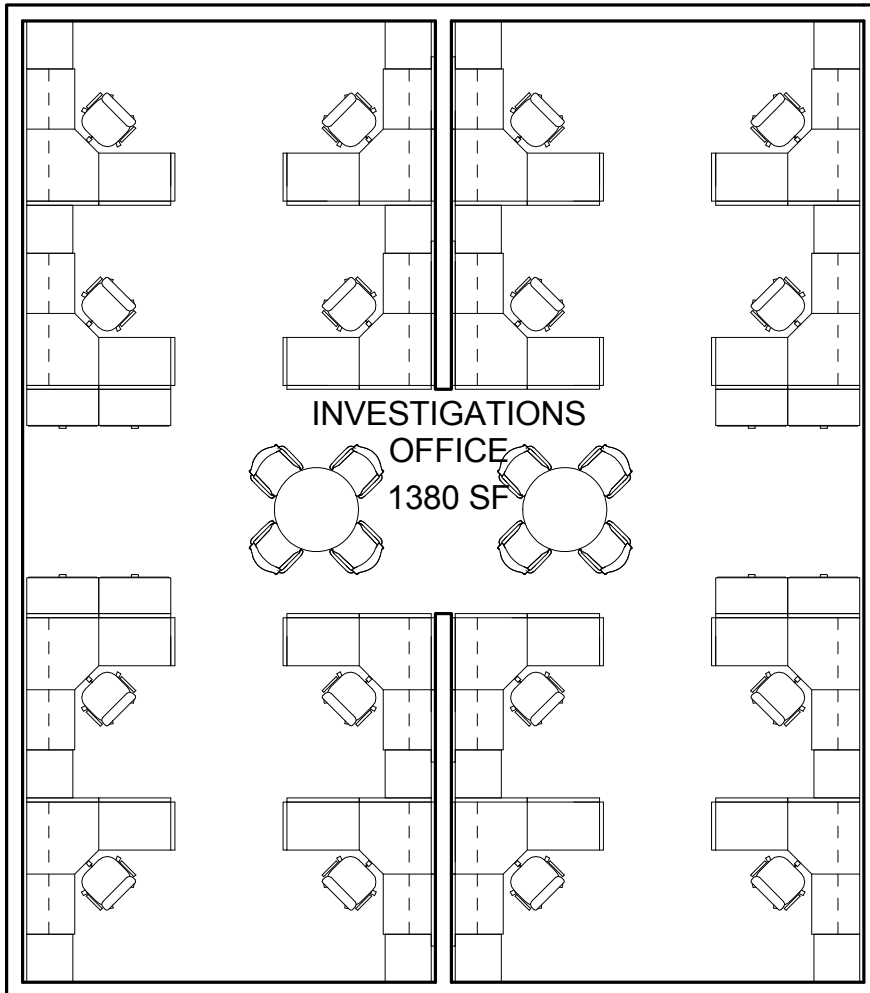
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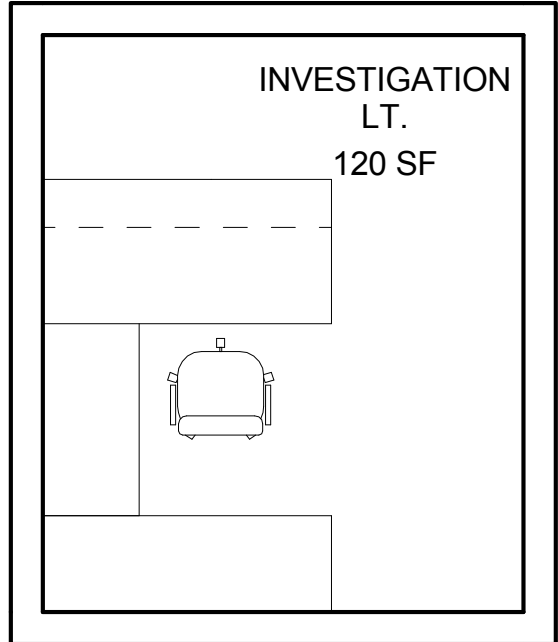
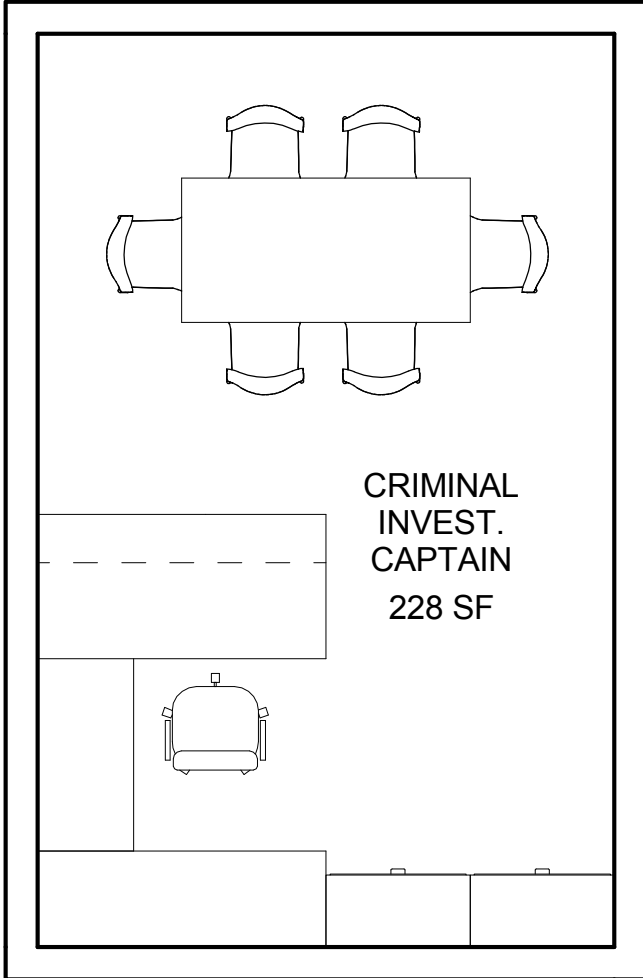
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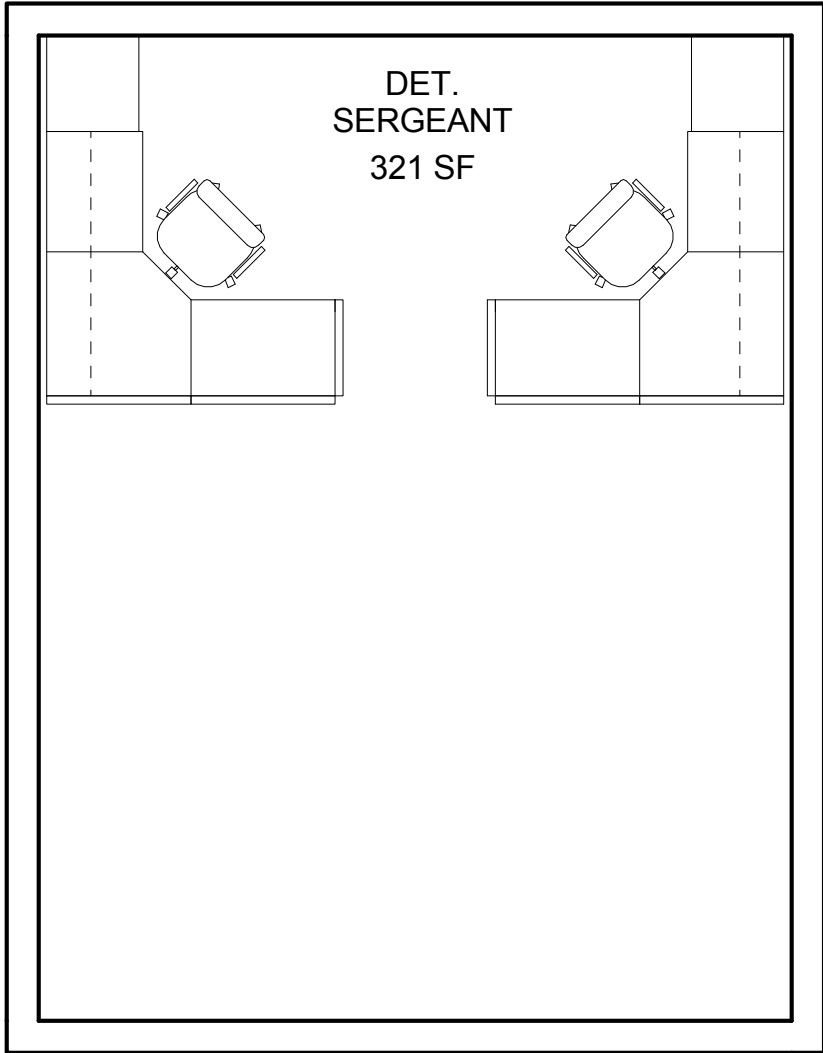
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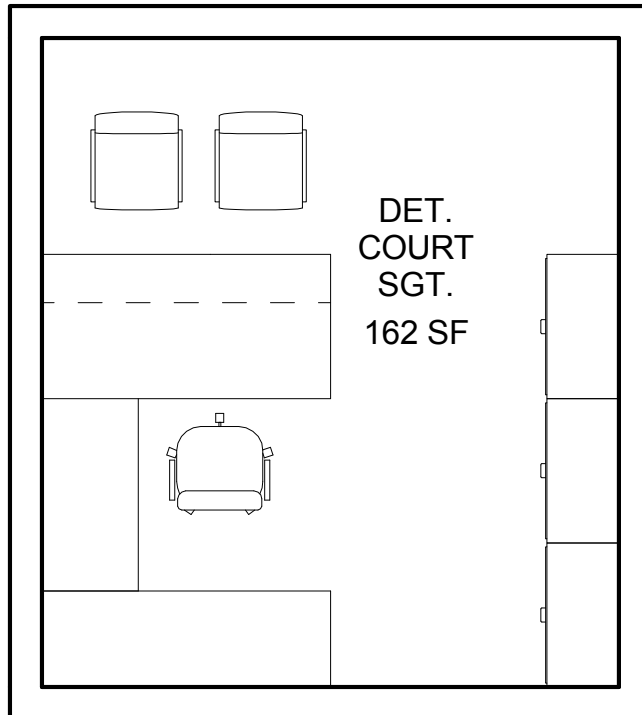
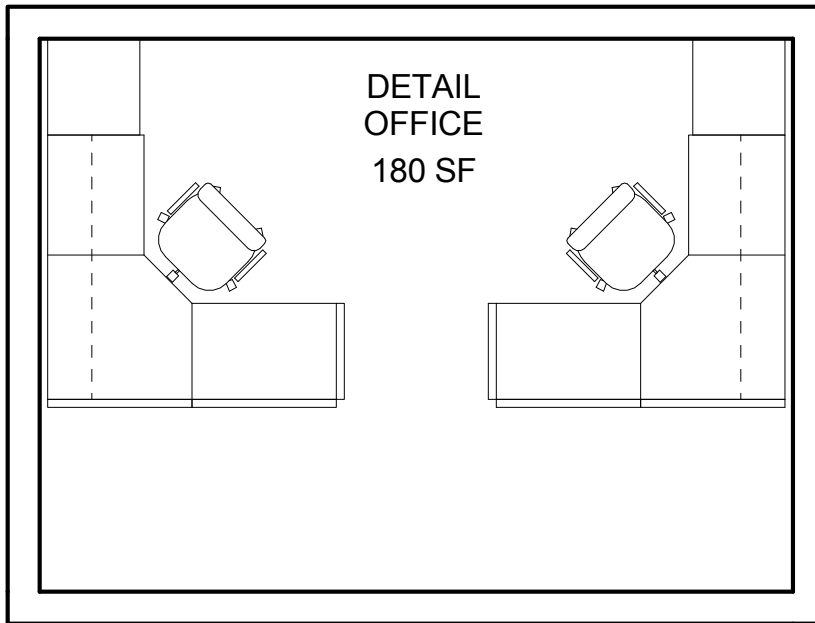
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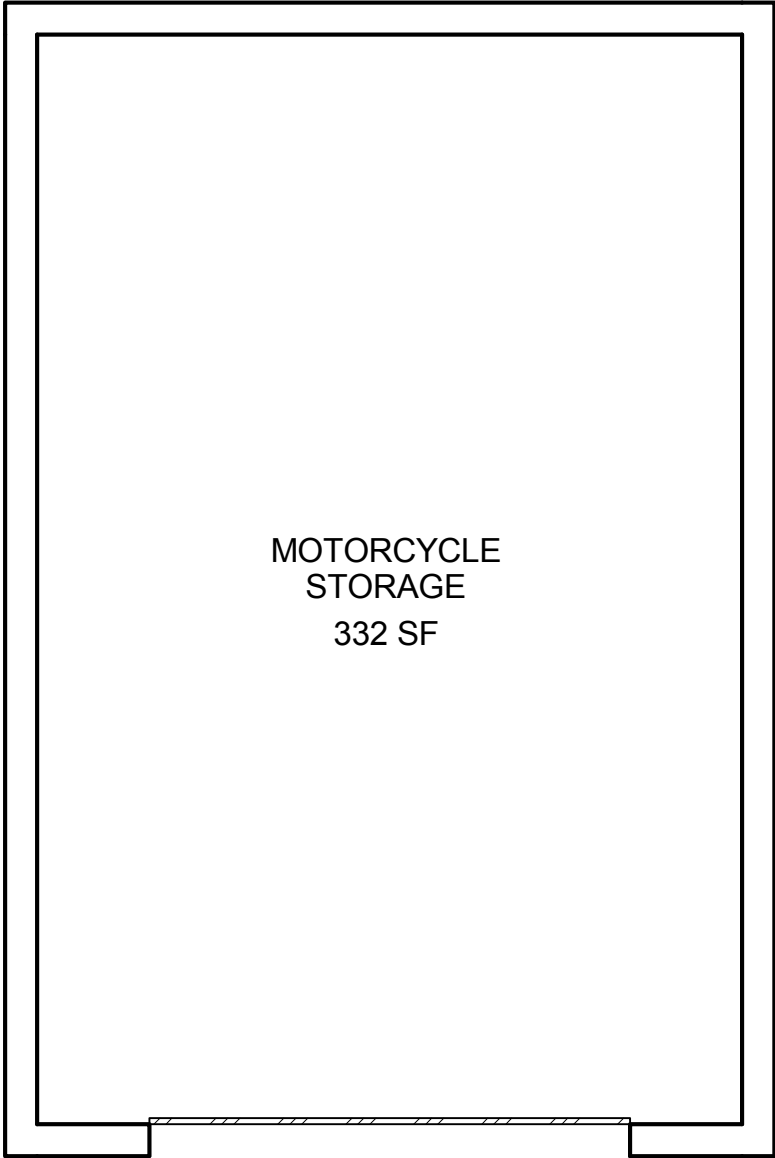
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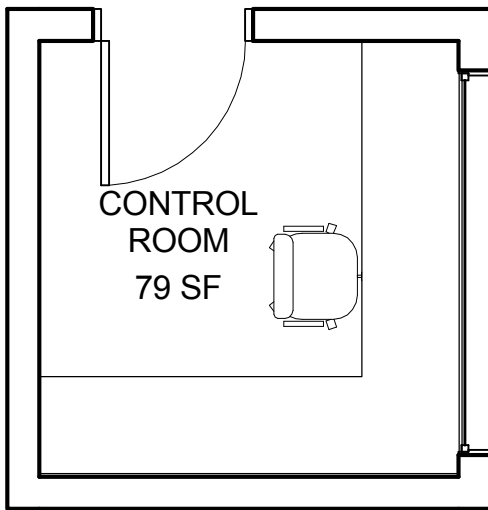
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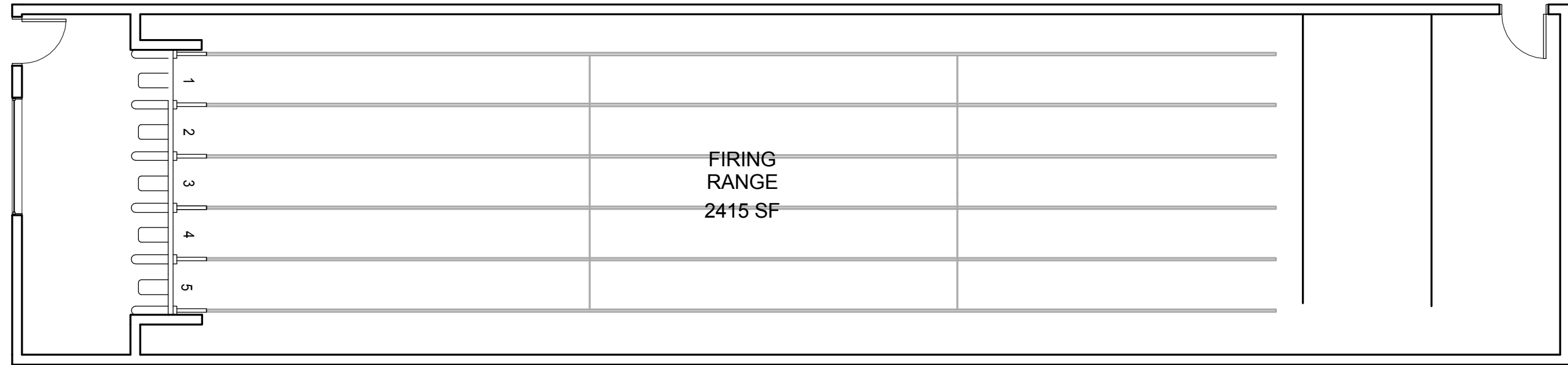
Somerville Police Department

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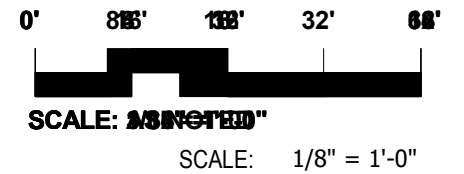
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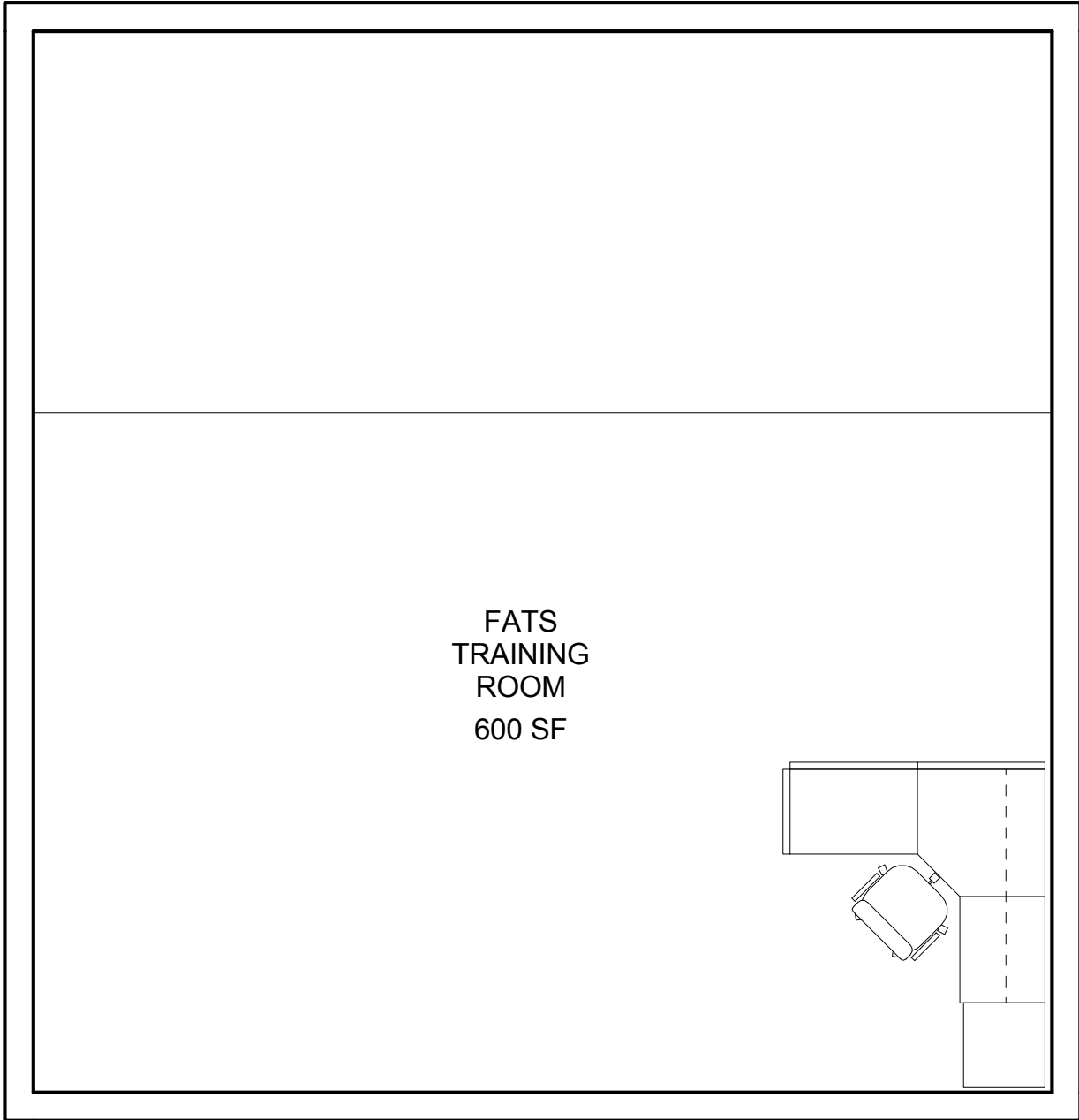
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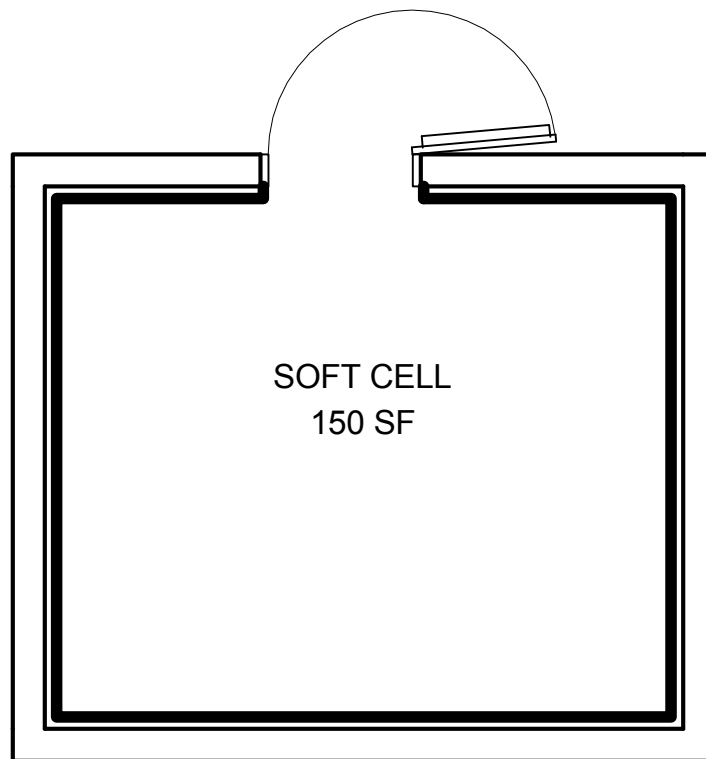
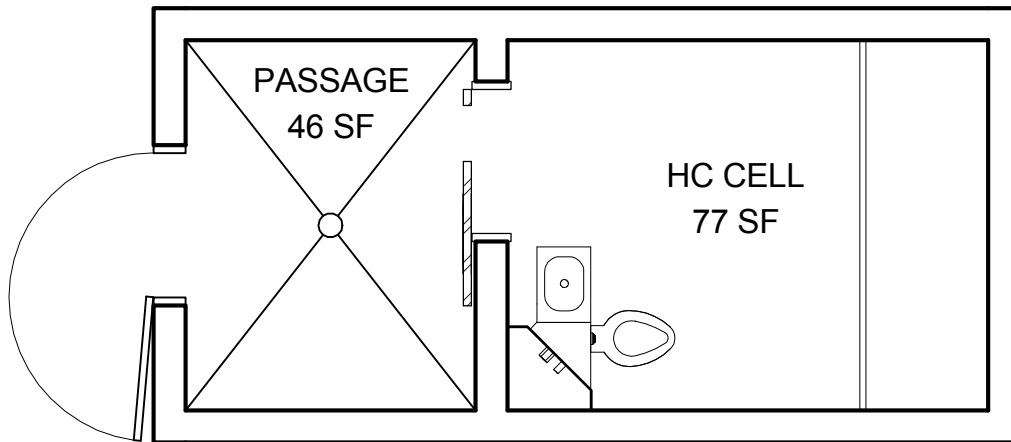
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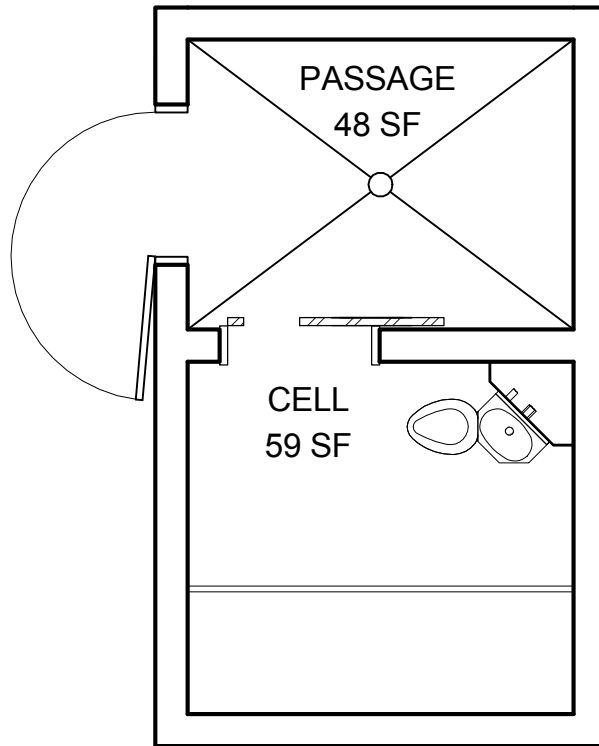
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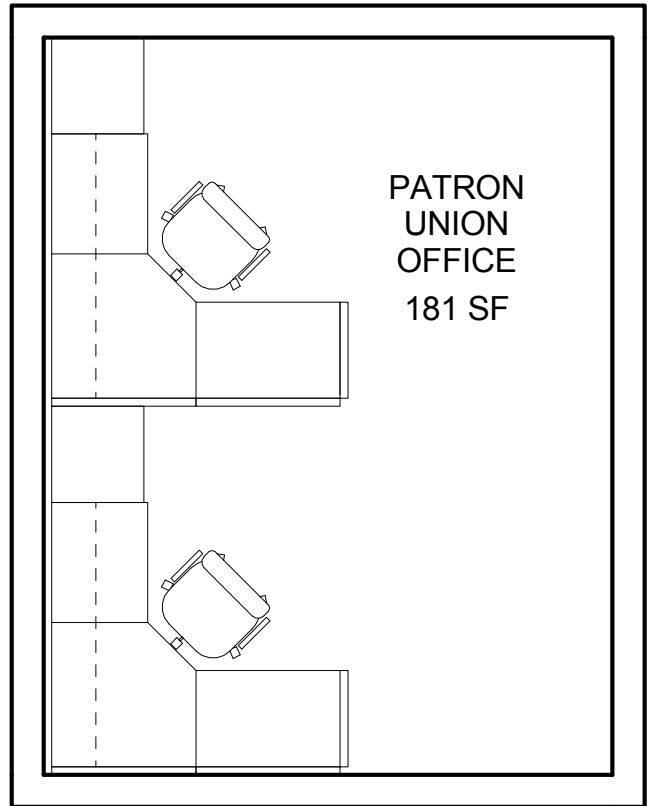
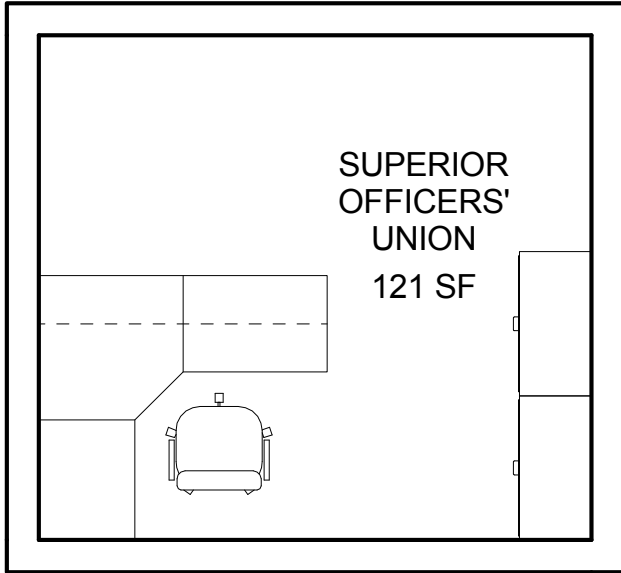
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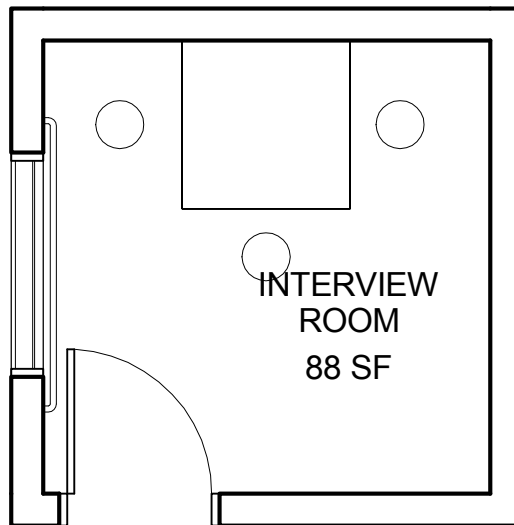
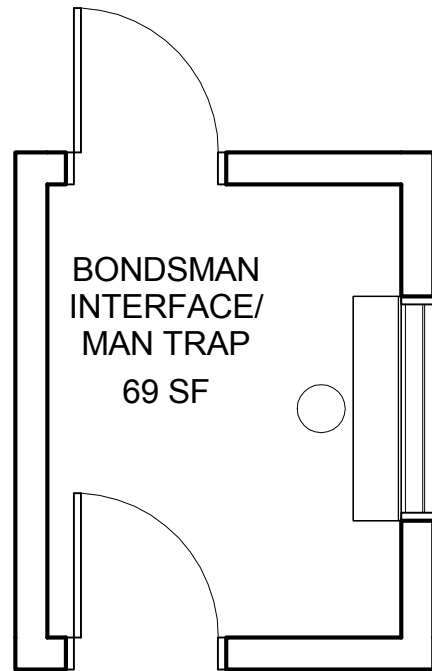
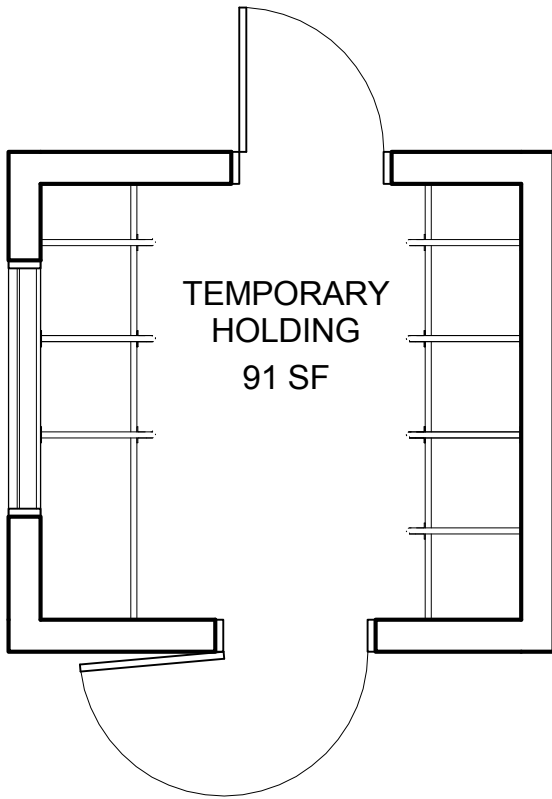
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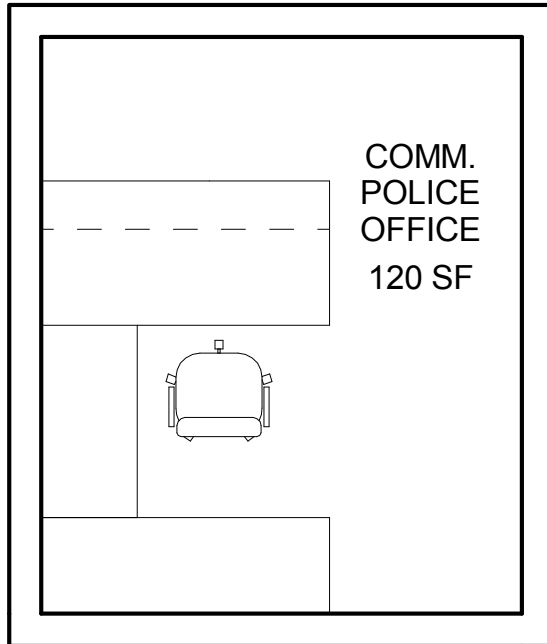
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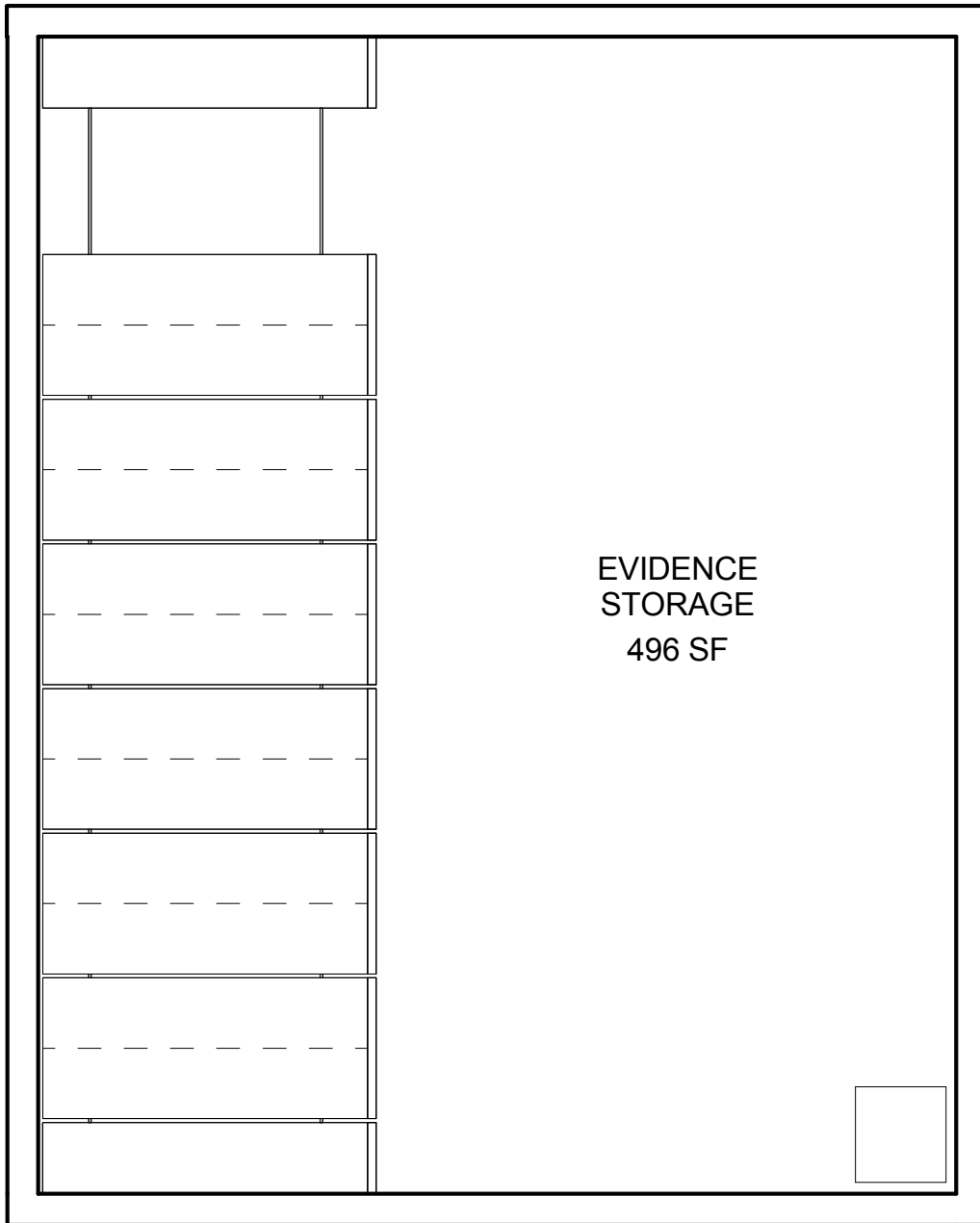
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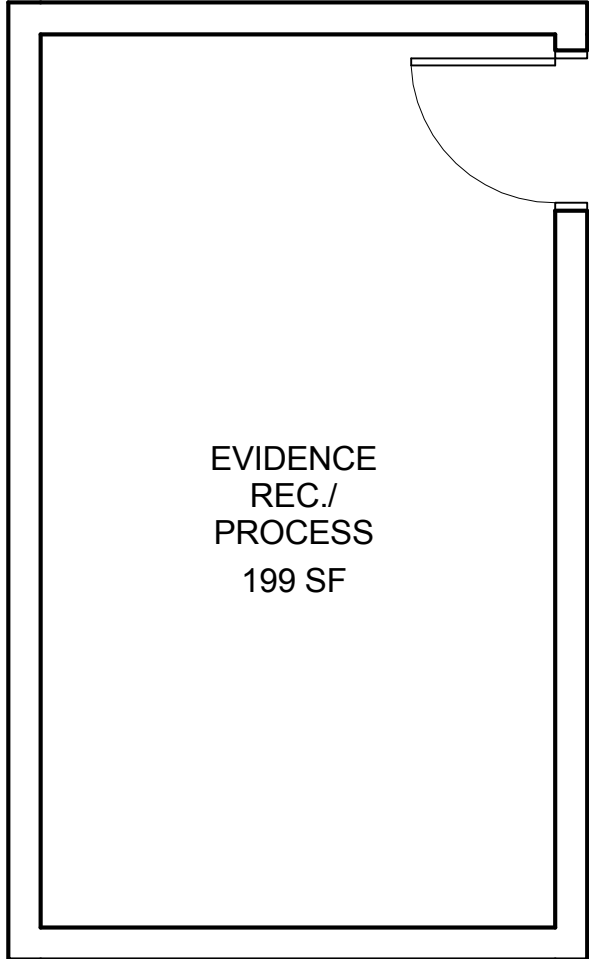
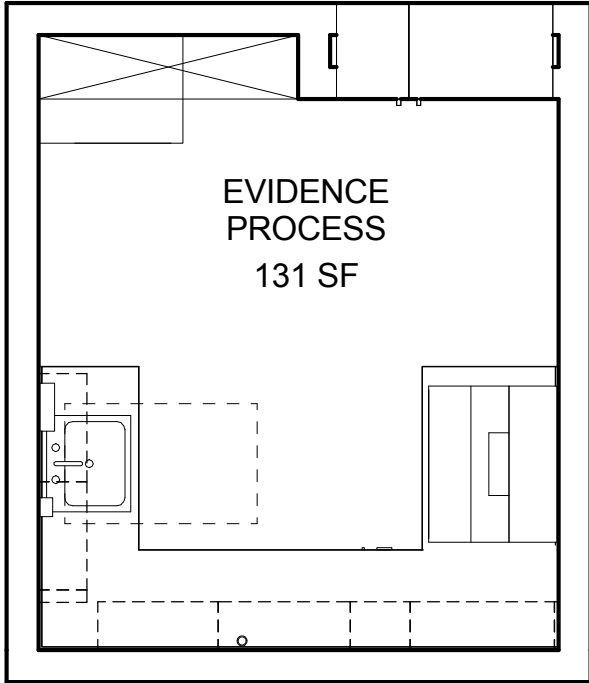
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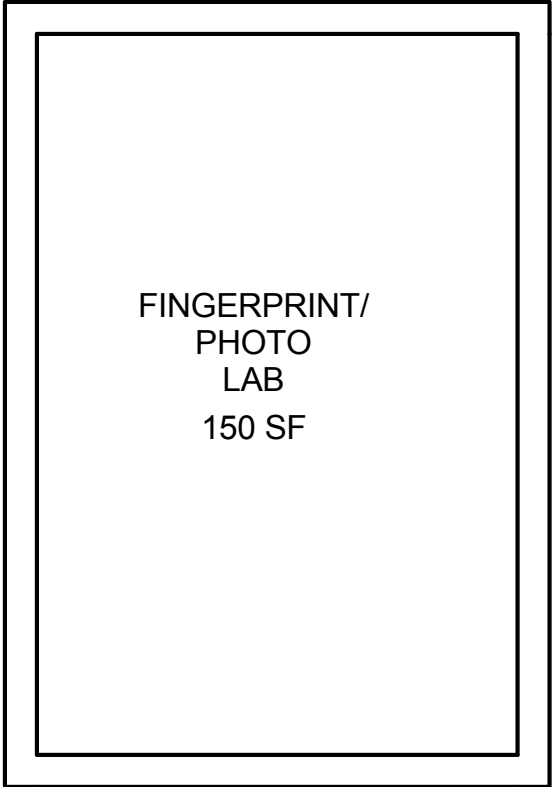
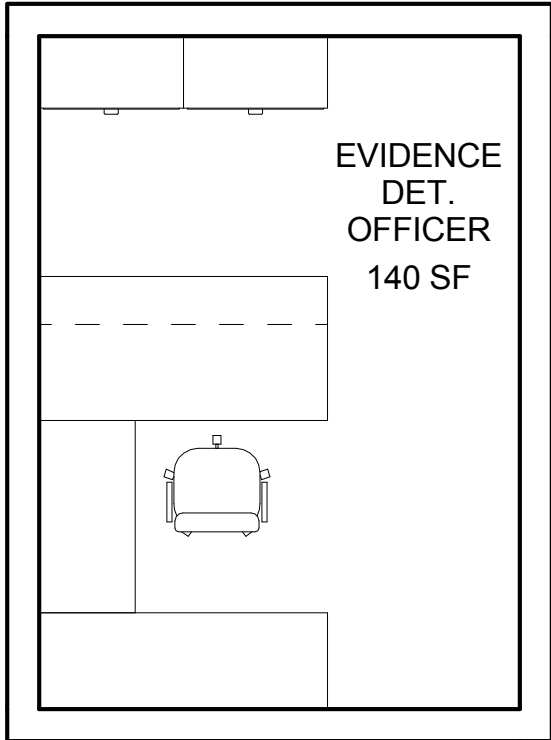
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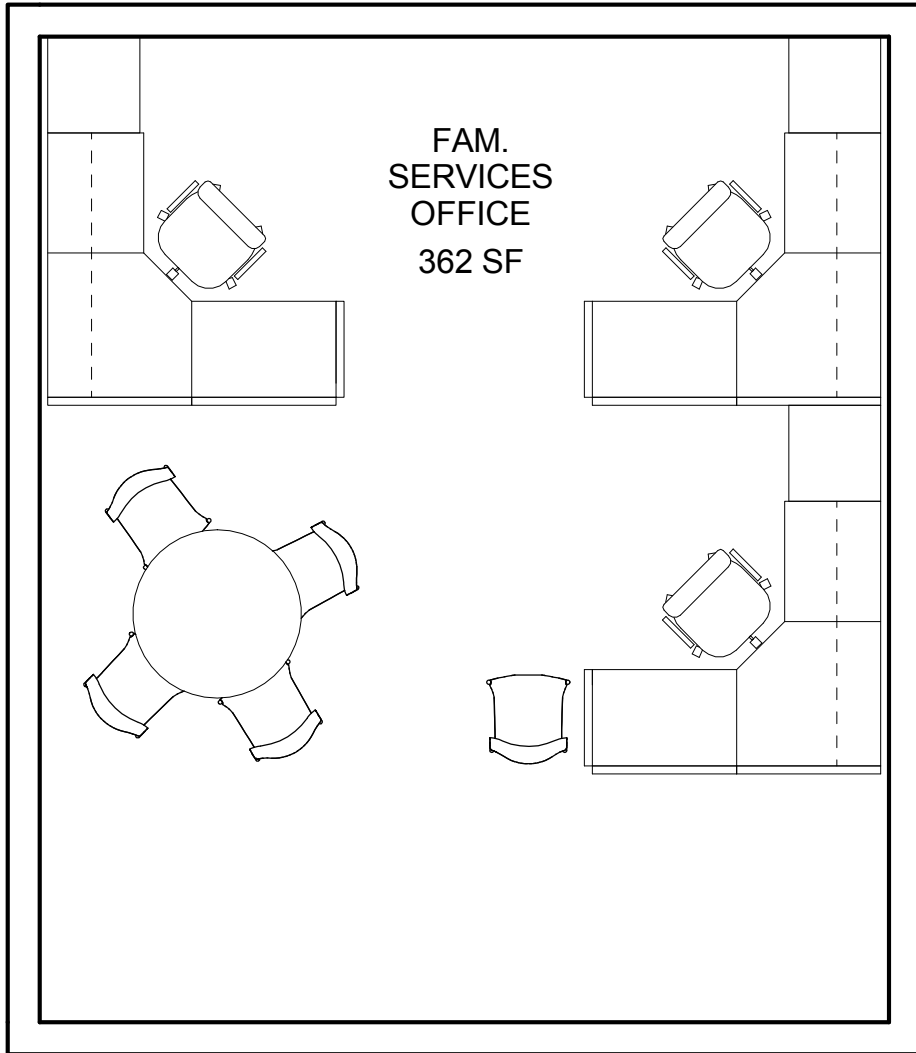
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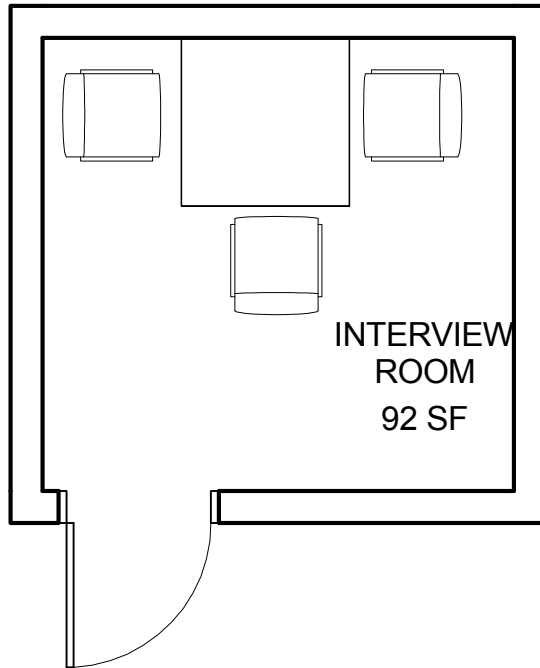
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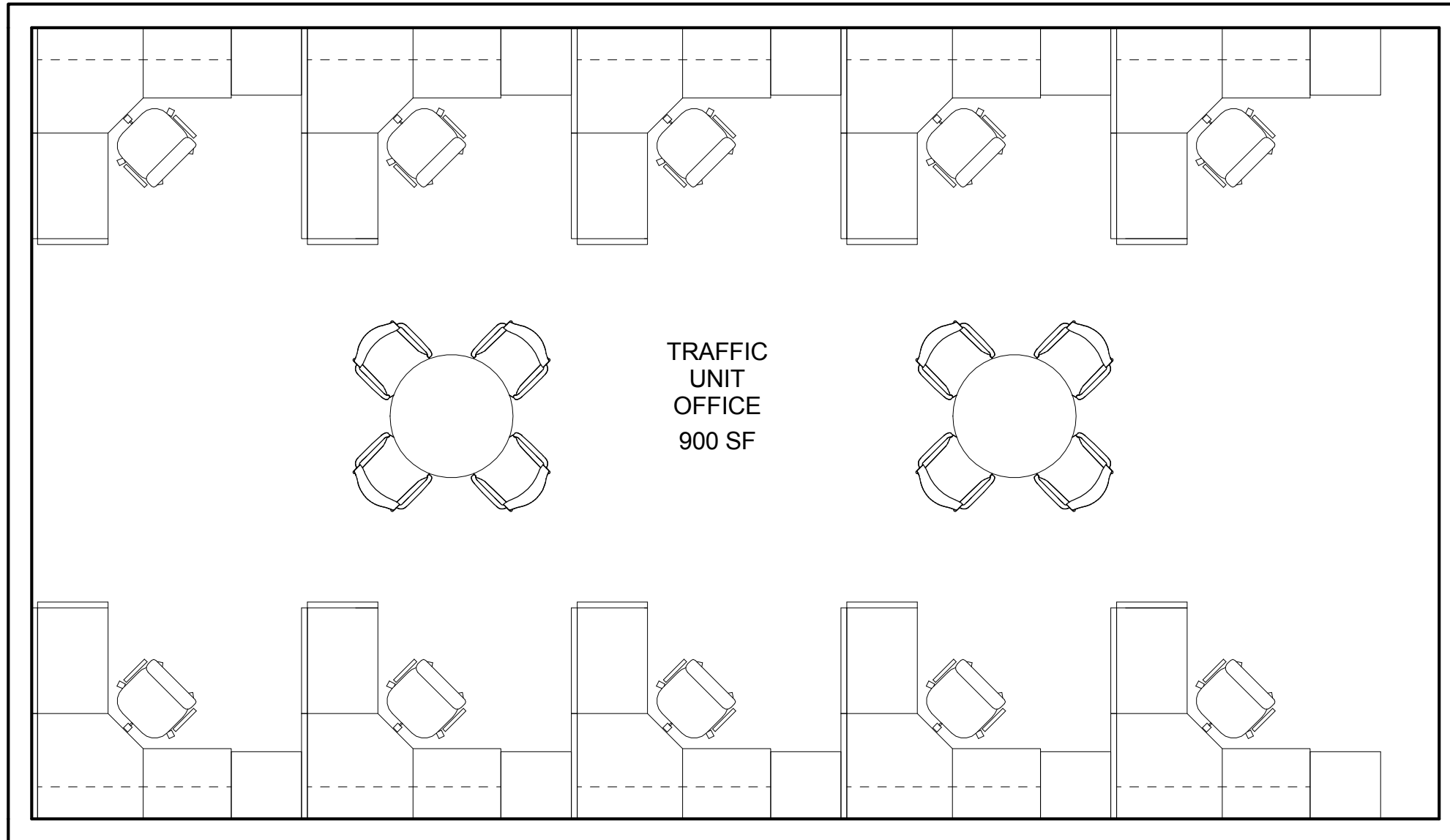
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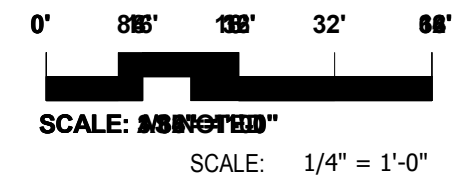
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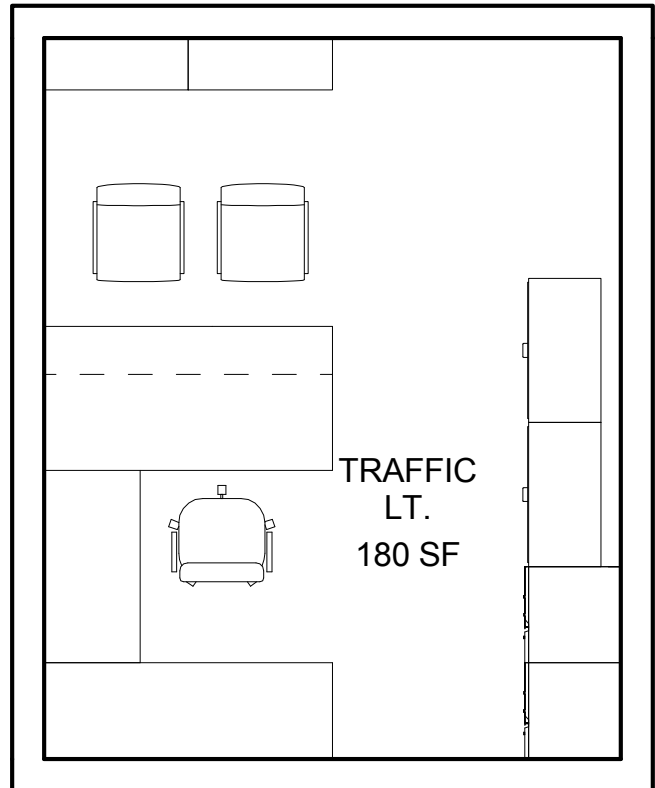
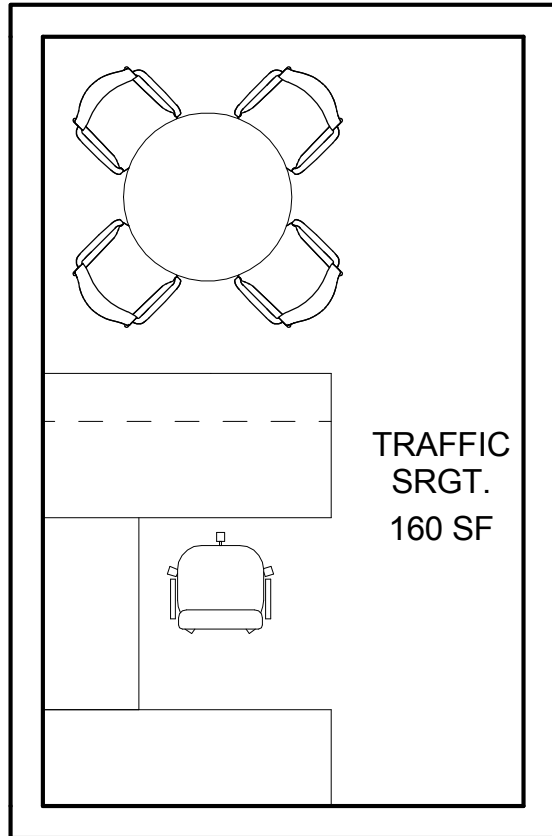
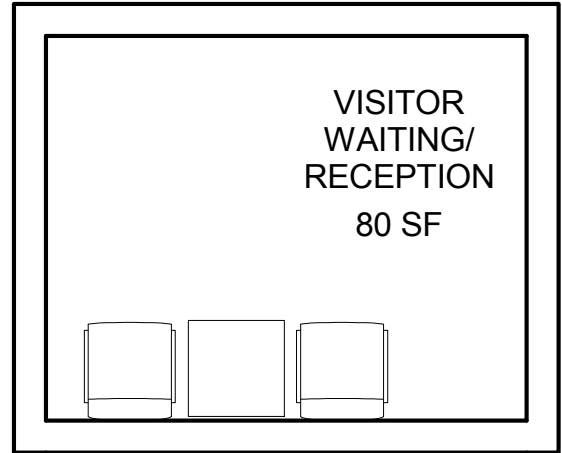
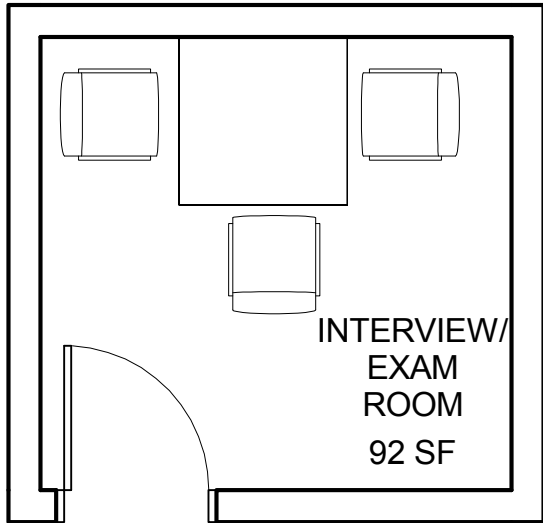


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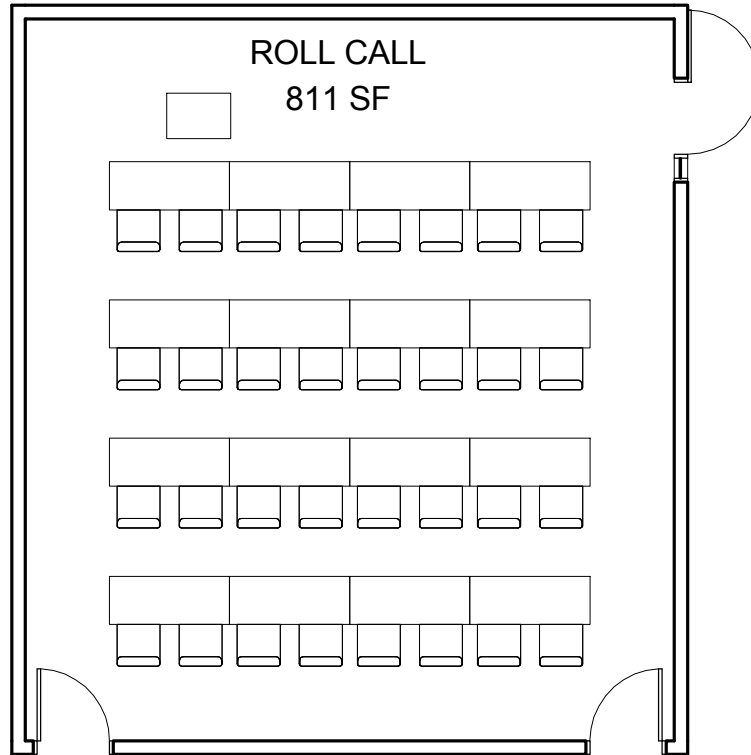
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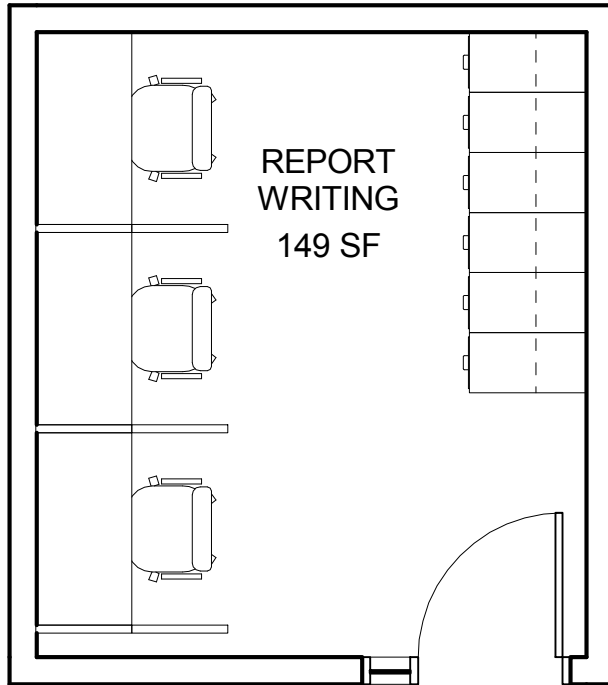
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associates, inc

**APPENDIX B**

Site Selection Analysis Materials

City of Somerville  
 Police Headquarters Feasibility Study  
 Site Investigation: General Site Information  
 June 15, 2018

Site Info

Site No.	Lot # (s)	Site Address	Proposed for:	Assessment	Lot Size (Acres)	Usable Site Size (Acres)	Ownership	Receptor	Env. Risk 1-5 (low-high)	Zone	Use Allowed by Zoning	FAR	Max Story	Setbacks			Min Planted Area	Max Lot Coverage	Max Bldg Footprint	Max Bldg SF	Comments
														Front	Sides	Rear					
1	106-A-4	17 Inner Belt Road	Police HQ	\$1,688,300	0.79	0.63	Private	None	2	BB	Special Permit Site Plan Review	2.0	50 ft	15 ft	0 ft	18 ft	10%	80%	27,530	68,825	
2	115-B-6, 7, 9, 10	17 McGrath Highway	Police HQ and Fire Engine 3	\$3,870,100	1.12	0.89	Private	None	3	IA	Special Permit Site Plan Review	2.0	50 ft*	0 ft	0 ft	18 ft	10%	80%	38,910	97,276	
3	94-D-13, 14, 15, 16	185 Somerville Ave	Police HQ and Fire Engine 3	\$1,906,800	0.94	0.75	Private	None	2	CCD55 Arts Overlay	Special Permit Site Plan Review	3.0	55 ft*	0 ft	0 ft	0 ft	10%	80%	32,788	122,955	
4	2-A-32	501 Mystic Valley Parkway	Police HQ	\$1,021,400	0.92	0.46	Private	None	1	RA	Special Permit Site Plan Review	0.75	2.5	15 ft	8 ft	20 ft	25%	50%	20,038	30,056	
5	45-B-22	526 Somerville Ave	Police HQ	\$1,810,400	0.78	0.62	Private	None	3	BA	Special Permit Site Plan Review	2.0	4	0 ft	0 ft	18 ft	10%	80%	21,745	67,954	
6	106-A-6	90 Washington ST	Police HQ and Fire Engine 3	\$4,671,900	3.99	3.19	Private	Tier II Site	3	BB	Special Permit Site Plan Review	2.0	50 ft*	15 ft	0 ft	16 ft	10%	80%	111,235	347,609	



Police Headquarters Feasibility Study

Site Investigation: Site Scoring Matrix

Site 1	17 Inner Belt Road
Site 2	17 McGrath Highway*
Site 3	185 Somerville Ave*
Site 4	501 Mystic Valley Parkway
Site 5	526 Somerville Ave
Site 6	90 Washington St*

\* Site with both Police and FD Engine 3

Site Rankings		1	2	3	4	5	6
Criteria	Factors	Site 6*	Site 2*	Site 3*	Site 4	Site 5	Site 1
		Score	Score	Score	Score	Score	Score
1. Location (15 points)	Fire Response Time (5 = >90% 5 min Response; 1 = <25% 5 min Response) <i>(Based on City data)</i>	5	4	5	5 <i>See note 1</i>	5 <i>See note 1</i>	5 <i>See note 1</i>
	Community Visibility/Connection (5 = Highly Visible/Connected; 1 = Disconnected)	4	4	4	3	4	2
	Site Access (5 = Good Access 1 = Poor Access)	4	4	1	1	2	2
2. Physical Features (15 points)	Size of Usable Site (5 = Greater than 1.0 acre; 0 = Less than 0.5 acres)	5	4	3	3	2	2
	Shape of Site (5 = Favorable Shape; 0 = Restrictive Shape/Size)	3	4	2	4	2	2
	Fit Engine 3? (5 = Engine 3 fits; 0 = Engine 3 Does Not Fit)	5	5	5	0	0	0
3. Zoning Consistency (10 points)	Proximity to Residential District (5 = Good Separation; 0 = Within Residential Area)	4	5	4	2	4	4
	Allowed Area Coverage (5 = Not Restrictive 1 = Restrictive)	5	5	5	2	3	4
4. Environmental Impacts (10 points)	Presence of Receptors (5 = No Receptors 0 = Significant Receptors)	2	4	4	4	4	4
	Hazardous Materials Issues (5 = No Evidence; 0 = Known Contamination)	2	3	4	4	4	4
5. Infrastructure (5 points)	Availability of Utilities (5 = Utilities Available; 0 = Major Extensions Req'd)	5	5	5	5	5	5
6. Permitting (5 points)	Permit Requirements (5 = Bldg. Permit only 1 = Variance Req'd)	2	2	2	2	2	2
7. Traffic Impacts (5 points)	Traffic Impacts (5 = No Impact 1 = Significant Impact)	3	3	4	4	2	3
8. Cost of Development (20 points)	Existing Structures (5 = Clear Site; 1 = Heavily Developed Site)	2	1	2	3	2	2
	Existing Tenants/Owners (10 = No Existing Tenants/1 owner; 1 = Many Tenants/Businesses/Multiple Owners)	8	4	4	10	8	6
	Site Assessment Cost (5 = Low \$; 1 = High \$) <i>(Based on MA GIS land and bldg assessed values/acre)</i>	4	1	3	4	3	3
Total Raw Score (out of 85 total possible points)		63	58	57	56	52	50
Total Percentage Score		74%	68%	67%	66%	61%	59%

*Note 1:* Sites that do not fit Engine 3 have been ranked for Fire Response Time based on existing location of Engine 3 - However, it is understood that future development in this area may have a negative impact on future response times if Engine 3 remains at its current location.

\* Site with both Police and FD Engine 3

Site Rankings	1	2	3	4	5	6
Criteria	Site 6* 90 Washington Street 13 out of 15	Site 2* 17 McGrath Highway 12 out of 15	Site 3* 185 Somerville Ave 10 out of 15	Site 4 501 Mystic Valley Parkway 9 out of 15	Site 5 526 Somerville Ave 11 out of 15	Site 1 17 Inner Belt Road 9 out of 15
1. Location (15 points)	Fire response time is good at 92% less than 5 minute response time. Site has good orientation for visibility and connection to Washington Street - Site has prominent corner for public "face" of building. Site access is good due to adjacency to Washington Street and New Washington St.	Fire response time is adequate at 88% less than 5 minutes. Site has adequate orientation for public visibility, but less than desirable connection to community due to adjacency to McGrath Hwy. Site access is adequate, but only access on McGrath Hwy and may require new traffic light for emergency response access.	Fire response time is good at 98% less than 5 minute response time. Site allows for prominent locations, but elevated McGrath Hwy adjacent cuts site off from east. While the site is adjacent to multiple roads, access is limited due to the constraints of the site size and shape. Access along McGrath Highway ramp is one-way.	Fire response time based on existing location in Union Square - 98% less than 5 minutes. It is anticipated that future development may have negative effect on response time. Community visibility is adequate, but limited by the shape and orientation of the lot. Site access is limited to Mystic Valley Parkway. The shape of the site is narrow against Mystic Pkwy which further limits access	Fire response time based on existing location in Union Square - 88% less than 5 minutes. It is anticipated that future development may have negative effect on response time. Community visibility and connection is good along Somerville Ave. Site access is limited due to the narrow frontage on Somerville Ave and from the limited capacity of Park St.	Fire response time based on existing location in Union Square - 98% less than 5 minutes. It is anticipated that future development may have negative effect on response time. Community visibility and connection are limited due to the site's location. Site access is limited due to the size and proportion (narrow) of the site.
2. Physical Features (15 points)	Site size is good at 3.99 acres. Site shape is adequate, but not optimal. Site is adequate for fitting FD Engine 3 at grade.	Site size is good at 1.12 acres. Site shape is good and has long portion adjacent to road. Site is adequate for fitting FD Engine 3 at grade.	Site size is adequate at just under one acre (0.94). Site shape limits layout of facility due to irregular shape. Site is adequate for fitting FD Engine 3 at grade.	Site size is limited at 0.91 acre. Shape of site is good with a rectangular lot. Site size is inadequate to fit FD Engine 3 / Location does not meet FD Engine 3 needs.	Site size is very limited at 0.62 acre. Shape of site is adequate, but limited due to size and orientation. Site size is inadequate to fit FD Engine 3 / Location does not meet FD Engine 3 needs.	Site size is severely limited at 0.49 acre. Site shape is limited due to long and narrow proportion. Site size is inadequate to fit FD Engine 3.
3. Zoning Consistency (10 points)	Site is within commercial district (BB), adjacent to Industrial (IA) and across Washington Street from multi-family residential (RC). Maximum lot coverage good at 80% allowable	Site is within Industrial District (IA) with no Residential area adjacent. Maximum lot coverage good at 80% allowable	Site is within Corridor Commercial District (CCD55) and under an Arts Overlay District. The site is immediately adjacent to Residential B (RB). Maximum lot coverage good at 80% allowable.	Site is within a residential A (RA) district, the least dense of the residential areas. Site is limited by maximum 50% lot coverage.	Site is within a Commercial (BA) district. Site has a buffer of commercial district to residential areas to the north. Maximum lot coverage good at 80% allowable.	Site is within a Commercial Residential (BB) district. The Site is not adjacent to any Residential areas. Maximum lot coverage good at 80% allowable.
4. Environmental Impacts (10 points)	Mass DEP RTN listed for the site indicates potential for hydrocarbon contamination due to a reported spill in 2012. Mass DEP has classified site as a Tier II disposal site. Further environmental investigations will be required to determine extent of contamination.	The site does not have any listed RTNs, however there are a number of RTNs on adjacent/nearby properties, and therefore is at small elevated risk for environmental contamination.	Site has no active RTNs, although there are two RTNs that have been since closed out. Given the past history of an automobile repair garage, some risk of contamination exists.	Site has no active RTNs. There are two RTNs on adjacent/nearby sites that have been since closed out. Likelihood of contamination is low, but cannot be ruled out completely.	Site has no active RTNs, although there are several RTNs on adjacent/nearby properties. Given the past history of an adjacent fuel station some risk of contamination exists.	Site has no active RTNs, although there are several RTNs on adjacent/nearby properties. Given the past history of a automobile repair garage, some risk of contamination exists.
5. Infrastructure (5 points)	All utilities readily available	All utilities readily available	All utilities readily available	All utilities readily available	All utilities readily available	All utilities readily available
6. Permitting (5 points)	Special Permit and Site Plan Review required	Special Permit and Site Plan Review required	Special Permit and Site Plan Review required	Special Permit and Site Plan Review required	Special Permit and Site Plan Review required	Special Permit and Site Plan Review required
7. Traffic Impacts (5 points)	Moderate traffic impact anticipated on Washington Street - Washington street, while busy is large enough to accommodate added emergency response traffic from the proposed facility.	Moderate traffic impact is anticipated on McGrath Highway, including possible additional of new intersections/traffic light for emergency response vehicles.	Minimal impact to traffic on the McGrath Highway off ramp may be anticipated.	No significant impact to Mystic Valley Parkway is anticipated.	Some traffic impact is expected along Somerville Ave because of existing congestion and adjacency to the intersections of Park and Central Streets.	Minimal traffic impact is anticipated.
8. Cost of Development (20 points)	Site has one building to be demolished. Building is currently vacant, with no existing tenants and one owner. Anticipated site acquisition costs are moderate to low with an assessed value per acre of appr. \$1.2 m	Site has multiple structures and multiple tenants. The site has multiple lots, however appears to have a single owner. Site acquisition costs appear to be high with an assessed value per acre of appr. \$3.5 m	Site has multiple structures, multiple tenants, and multiple owners. Site acquisition costs appear to be more moderate with an assessed value per acre of appr. \$2.0 m	Site have a large residence and garage on the site. The site does not have any tenants and has only one owner. Site acquisition costs appear to be moderate with an assessed value per acre of appr. \$1.1 m	Site has an existing moderately large pharmacy on site. The site has one owner and one tenant. Site acquisition costs appear to be moderate to high with an assessed value per acre of appr. \$2.3 m	Site has multiple structures, multiple tenants, and a single owner. Site acquisition costs appear to be moderate with an assessed value per acre of appr. \$2.1 m

## APPENDIX C

Conceptual Site Layout for Site 6, 90 Washington Street

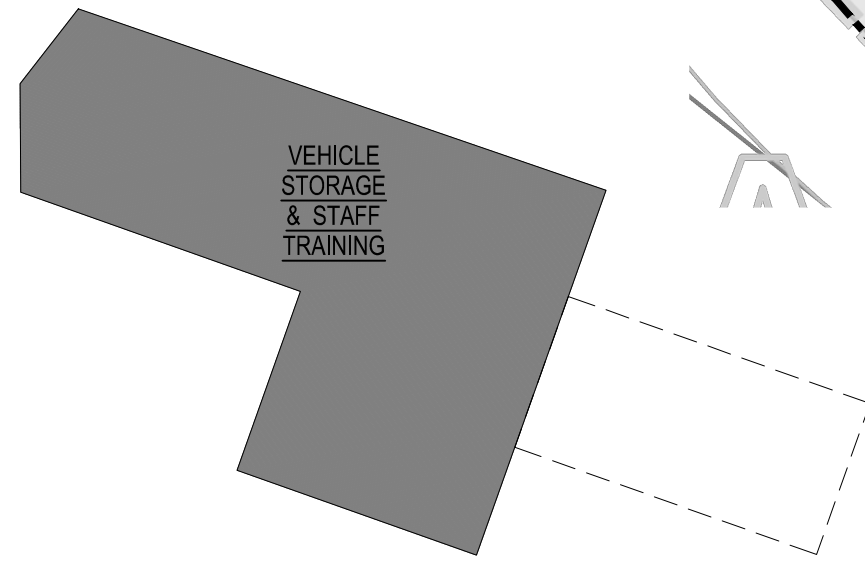
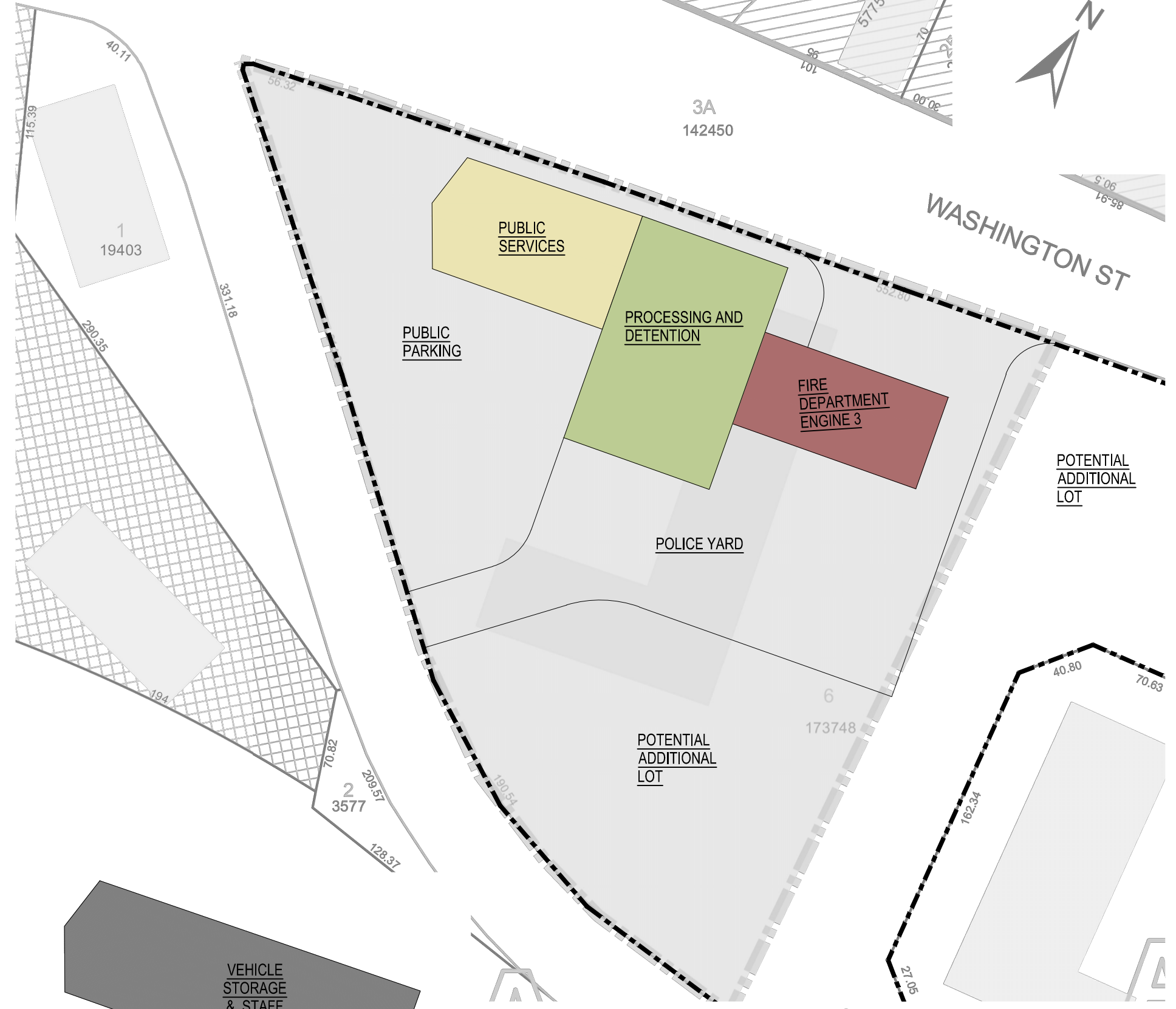
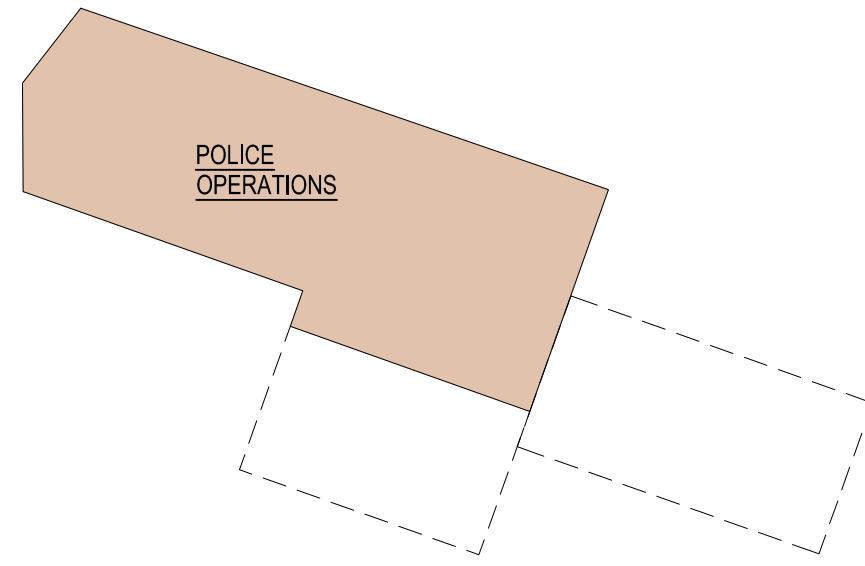
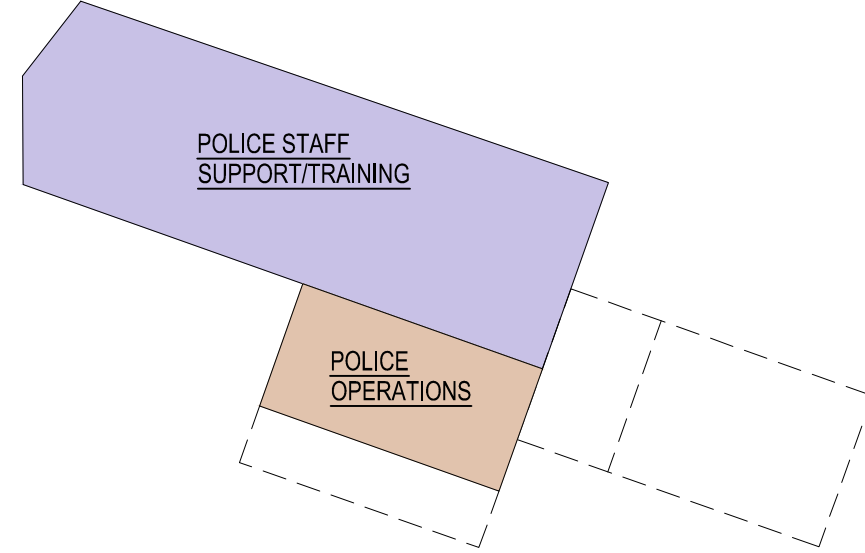
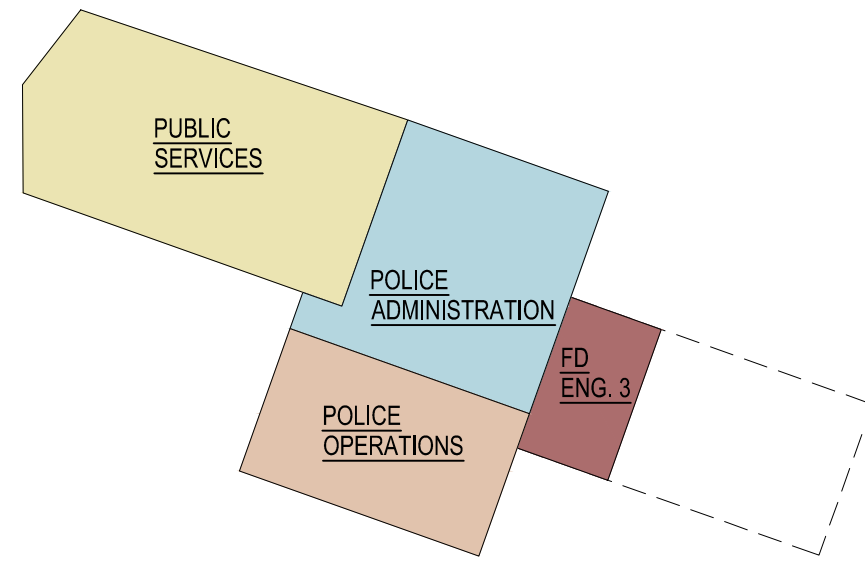
Revisions:

Rev	Date	Description

Seal:

Issued For:  
**PRELIMINARY SITE LAYOUTS**

Date: September 21, 2017  
Scale: 1" = 30'  
Drawn By: MA  
Reviewed By: JPP  
Checked By: JPP  
Approved By:



**LEGEND**

- PUBLIC/COMMUNITY ACCESS  
12,700 SF
- POLICE ADMINISTRATION  
6,000 SF
- STAFF SUPPORT/TRAINING  
11,000 SF
- POLICE OPERATIONS  
16,000 SF
- DETENTION  
8,800 SF
- VEHICLE STORAGE AND TRAINING  
15,000 SF
- FIRE DEPARTMENT ENGINE 3  
6,500 SF



CITY OF SOMERVILLE, MASSACHUSETTS  
JOSEPH A. CURTATONE  
MAYOR

To: Board of Alderman  
Re: Future Public Safety Building  
Date: May 22, 2018

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This memo explains the Administration's rationale for building a new public safety building, the process we used to select a location for the building, the potential building program, and how the new facility fits into the City's capital and long-range financial planning.

**The need for a new public safety building**

The Somerville Police Department (SPD) adopted 220 Washington St. in Union Square as its headquarters in 1985. Engine 3 and other Somerville Fire Department (SFD) staff and apparatus moved into the building at the same time.

The current facility does not adequately serve the needs of the SPD and the SFD. The building was never designed to function as a police headquarters or to house a fire department company, having served as a car barn for the MBTA prior to 1985. The building has also experienced several serious floods, one of which led to the relocation of Engine 3 staff out of the building into temporary trailers and later modular units on site.

Recognizing that a longer-term solution is needed to appropriately serve our public safety departments and our residents, the City began planning for the relocation of public safety into a new facility in 2016. The Capital Projects and Planning Department (CPPD) hired a consulting team (Weston & Sampson) to conduct a space needs assessment to compile quantitative and qualitative data about the existing facility and to understand administrative and operational goals and how those goals relate to spatial requirements. Based on this information, a space needs summary was developed indicating specific interior and exterior requirements. Individual sketches of key administrative, operational, and support spaces were developed including specific layout information for required furniture and equipment as well as technology, communications, audio/visual, lighting, HVAC, finishes, and privacy requirements. This information provides critical detail in identifying the program for a new SPD headquarters. Similar

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E-MAIL: [mayor@somervillema.gov](mailto:mayor@somervillema.gov)



information for Engine 3 of the SFD was collected during the process of designing and constructing the company's new modular units in 2015-2016.

### **Selecting a location for a new public safety building**

The space needs assessment indicates that a new SPD headquarters will require at least 77,000 square feet of space and a floorplate of at least 30,000 square feet. To identify potential locations that could accommodate this program, CPPD and the Planning and Zoning Division identified all parcels in Somerville that are at least 30,000 square feet.<sup>1</sup> They then selected from this list the most underutilized parcels. Weston & Sampson evaluated each of the resulting six sites against a uniform set of criteria to determine the best location for the new public safety building. These criteria include, but are not limited to, site access, whether the site can accommodate Engine 3 (in terms of size and location), estimated response times for Engine 3, the size of the site and the extent to which its shape accommodates public safety uses, environmental factors, and the estimated cost of development.

This site scoring matrix identified 90 Washington St., the current site of the vacant Cobble Hill shopping center, as the preferred location for a new SPD headquarters and Engine 3. In keeping with the recommendations from the [2016 Carlson Group Fire Study](#), the proposed new site for Engine 3 is to the east of Union Square, which will allow it to serve East Somerville, Union Square, and anticipated new development in Brickbottom, Boynton Yards, and Inner Belt. The median estimated response time for critical calls from this location is 3.98 minutes, well below the National Fire Protection Association (NFPA) standard of 5 minutes, and Engine 3 will be able to respond to an estimated 92% of critical calls within 5 minutes. Additional key benefits of the site include its size (3.98 acres) and access and the fact that there are no existing tenants on the site.

### **Program for a new public safety building at 90 Washington St.**

At a minimum, the new facility at 90 Washington St. will house the SPD headquarters (including the e-911 call center) and Engine 3. As part of the design process, the City will investigate locating other uses at the building. For example, the City could consolidate all of our dispatch and call service operations in one location, which would include Fire Alarm and Constituent Services in addition to e-911. The City will also consider relocating Traffic & Parking to the new facility. These decisions will be made during the design process, and the rationale for these potential relocations will be discussed with the Board of Aldermen when we report on the recommendations from the Building Master Planning Committee in the fall. We will also examine whether the site can accommodate the spare fire apparatus and other fire uses currently located in Union Square.

In keeping with Somerville's goal to be carbon neutral by 2050, the City is proposing to build a net-zero-ready facility, which means, at a minimum, that the building will be ultra-efficient and only use electricity as its energy source.

---

<sup>1</sup> While the City's preference is to locate the new SPD headquarters and Engine 3 on the same site, it did not restrict its search to sites located in the Engine 3 response area.

### **Financial implications of a new public safety building**

The City is requesting an authorization to borrow and appropriate \$8.745 million to acquire the 90 Washington St. site based on the appraisal ordered by the City and conducted by Mark Reenstierna of T. H. Reenstierna, LLC, which the City received on March 21, 2018. The City has included this amount in its revised Capital Investment Plan (CIP) project list in the critical category.<sup>2</sup> The construction of the new public safety building has been included as a critical project since November 2016. The associated debt service of these two expenses has been factored into the City's long-range financial model for the General Fund, and the City is exploring using the proceeds from the anticipated sale of D1 (where the police headquarters is currently located) to net down this debt service. We are available to brief the BOA on our projected long-term financial health at their convenience.

### **Items before the Board of Aldermen**

We are submitting three requests to the Board of Aldermen:

1. An order of taking for the acquisition of 90 Washington St.
2. Borrowing authorization and appropriation request for the acquisition of 90 Washington St.
3. Borrowing authorization and appropriation request for owner's project manager (OPM) and contractual project management services for the construction of a new public safety building. Massachusetts procurement law requires municipalities to hire an OPM for building projects estimated to cost \$1.5 million or more.

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<sup>2</sup> Critical projects are defined as those required to fulfill SomerVision and the USQ Neighborhood Plan. The current public safety building must be relocated to allow the development on D1 called for in the USQ Neighborhood Plan.



# **Proposed Public Safety Building and Fire Department (Engine 3)**

**90 Washington Street  
July 10, 2018**



# Agenda

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1. Introduction: Rob King
2. Space needs assessment: Weston & Sampson
3. Site selection: Weston & Sampson
4. Site acquisition: Eileen McGettigan & Tom Galligani
5. Finances: Rob King
6. Next steps: Rob King

# 1. Introduction

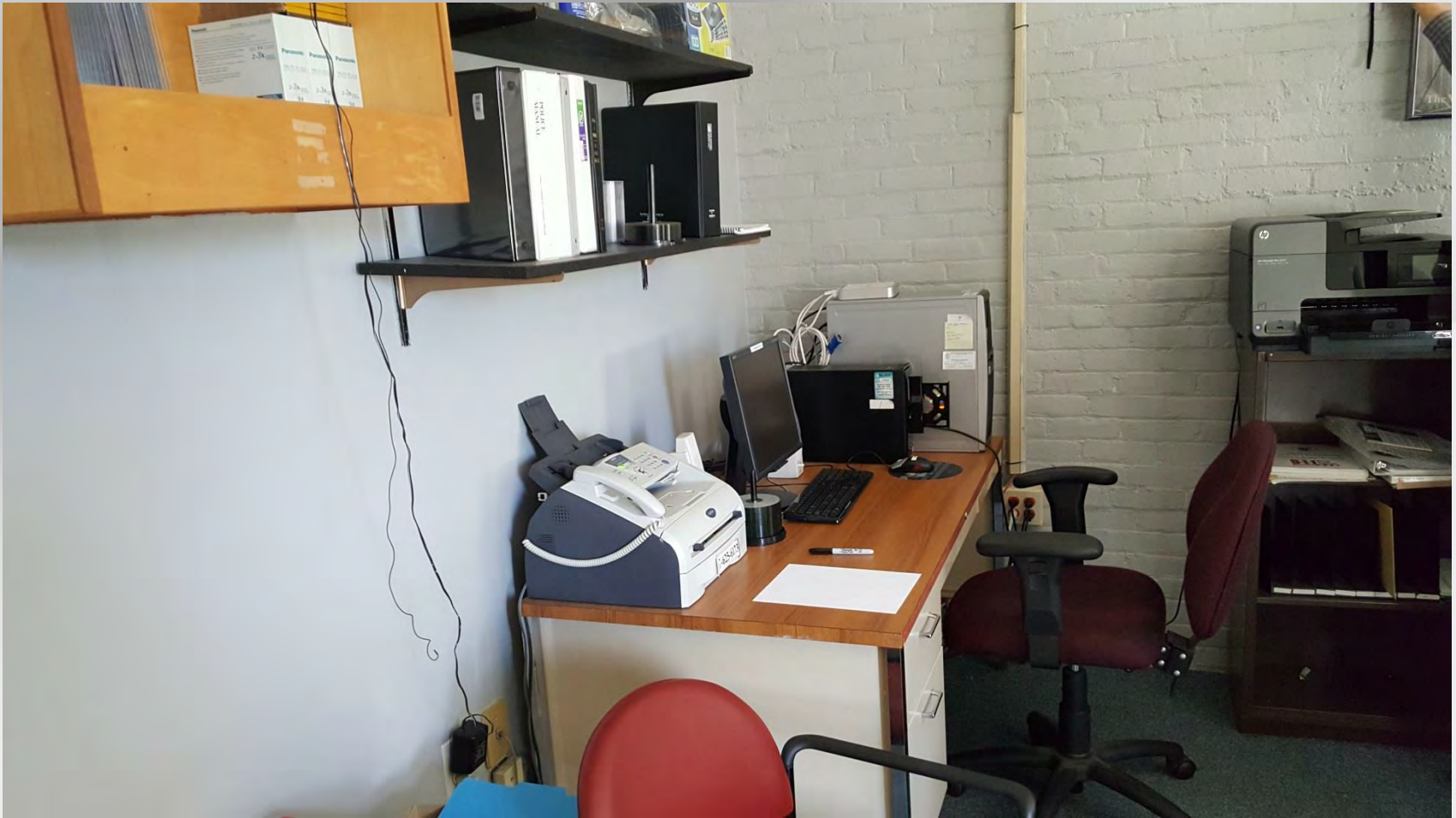
# The Need (Existing Challenges):

---

- Inadequate space for current and future needs
- Inadequate space for police vehicles on the site
- Inefficient adjacencies
- Severe flooding potential:
  - police and fire vehicles
  - building generator
  - flooding led to the relocation of Engine 3
- Inefficient building envelope
- Inadequate parking
- Scheduling and security conflicts

# The Need (Existing Challenges):

---



# The Need (Existing Challenges):

---



# The Need (Existing Challenges):



# The Need (Existing Challenges):

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# The Need (Existing Challenges):





# The Need (Existing Challenges):

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# The Need (Existing Challenges):

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# The Need (Existing Challenges):

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# The Need (Existing Challenges):

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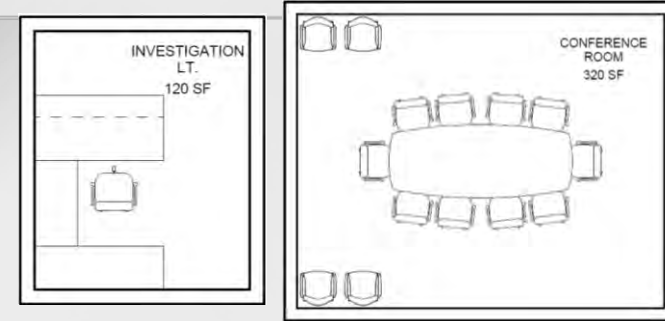


## 2. SPACE NEEDS ASSESSMENT

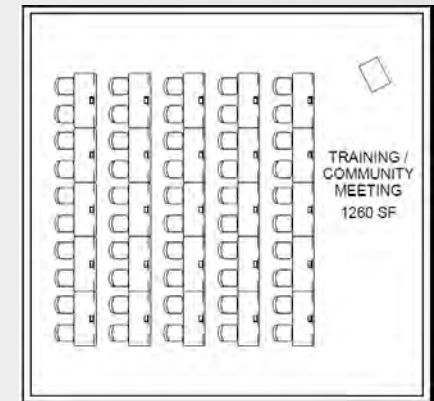
# Space needs assessment

## Programming Process:

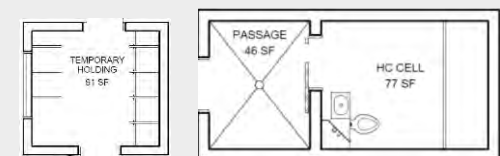
1. Documented existing facility to quantify existing program and identify deficiencies
2. Conducted staff interviews to identify current and future needs
3. Developed room programming sketches
4. Assembled comprehensive space needs assessment



*Office and office support*



*Training / shared community space*



*Detention facilities*

# Space needs assessment

---

<u>Police</u>	<u>Size (SF)</u>
Public / Community Access	12,200
Police Administration	7,900
Staff Support / Training	14,500
Police Operations	19,800
Detention / Detention Support	8,800
Vehicle Storage / Maintenance	<u>14,800</u>
Subtotal Police:	78,000
Fire Department Engine 3	6,500
Total Building Program:	84,500

# Space needs assessment

---

## Programming Process:

1. Utilizing the space needs assessment, developed generic conceptual site layouts to define the minimum building footprint for site selection
2. Reviewed 3-story and 4-story schemes
3. Identified minimum building footprint range of 18,000 to 30,000 square feet (varies based on number of stories)



# 3. SITE SELECTION

# Site selection

1. City developed an initial list of potential sites
2. Conducted an initial site screening:
  - Size
  - Allowable development size
  - Ownership
  - Zoning
  - Permitting challenges
  - Environmental restrictions
3. Identified six (6) potential sites capable of meeting basic programming and site requirements

Site 1	17 Inner Belt Road
Site 2	17 McGrath Highway*
Site 3	185 Somerville Ave*
Site 4	501 Mystic Valley Parkway
Site 5	526 Somerville Ave
Site 6	90 Washington St*

*\* Site with both Police and FD Engine 3*

4. Developed a detailed site selection matrix to rank the sites

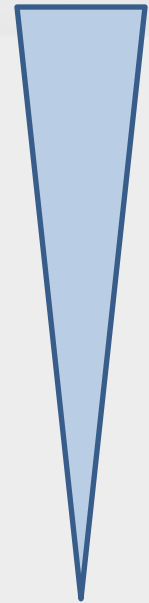
# Site selection

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Conducted a detailed site selection analysis based on criteria developed in coordination with the City:

- Cost of Development (20 points)
- Location (15 points)
- Physical Features (15 points)
- Zoning Consistency (10 points)
- Environmental Impacts (10 points)
- Infrastructure (5 points)
- Permitting (5 points)
- Traffic Impacts (5 points)

Estimated to be  
Most Critical



Estimated to be  
Less Critical

# Site selection

Evaluated and ranked each site

Site Rankings		1	2	3	4	5	6
Criteria	Factors	Site 6*	Site 2*	Site 3*	Site 4	Site 5	Site 1
		Score	Score	Score	Score	Score	Score
1. Location (15 points)	Fire Response Time (5 = >90% 5 min Response; 1 = <25% 5 min Response) <i>(Based on City data)</i>	5	4	5	5 <i>See note 1</i>	5 <i>See note 1</i>	5 <i>See note 1</i>
	Community Visibility/Connection (5 = Highly Visible/Connected; 1 = Disconnected)	4	4	4	3	4	2
	Site Access (5 = Good Access 1 = Poor Access)	4	4	1	1	2	2
2. Physical Features (15 points)	Size of Usable Site (5 = Greater than 1.0 acre; 0 = Less than 0.5 acres)	5	4	3	3	2	2
	Shape of Site (5 = Favorable Shape; 0 = Restrictive Shape/Size)	3	4	2	4	2	2
	Fit Engine 3? (5 = Engine 3 fits; 0 = Engine 3 Does Not Fit)	5	5	5	0	0	0
3. Zoning Consistency (10 points)	Proximity to Residential District (5 = Good Separation; 0 = Within Residential Area)	4	5	4	2	4	4
	Allowed Area Coverage (5 = Not Restrictive 1 = Restrictive)	5	5	5	2	3	4
4. Environmental Impacts (10 points)	Presence of Receptors (5 = No Receptors 0 = Significant Receptors)	2	4	4	4	4	4
	Hazardous Materials Issues (5 = No Evidence; 0 = Known Contamination)	2	3	4	4	4	4

# Site selection

Evaluated and ranked each site

Site Rankings		1	2	3	4	5	6
Criteria	Factors	Site 6*	Site 2*	Site 3*	Site 4	Site 5	Site 1
		Score	Score	Score	Score	Score	Score
5. Infrastructure (5 points)	Availability of Utilities (5 = Utilities Available; 0 = Major Extensions Req'd)	5	5	5	5	5	5
6. Permitting (5 points)	Permit Requirements (5 = Bldg. Permit only 1 = Variance Req'd)	2	2	2	2	2	2
7. Traffic Impacts (5 points)	Traffic Impacts (5 = No Impact 1 = Significant Impact)	3	3	4	4	2	3
8. Cost of Development (20 points)	Existing Structures (5 = Clear Site; 1 = Heavily Developed Site)	2	1	2	3	2	2
	Existing Tenants/Owners (10 = No Existing Tenants/1 owner; 1 = Many Tenants/Businesses/Multiple Owners)	8	4	4	10	8	6
	Site Assessment Cost (5 = Low \$; 1 = High \$) (Based on MA GIS land and bldg assessed values/acre)	4	1	3	4	3	3
Total Raw Score (out of 85 total possible points)		63	58	57	56	52	50
Total Percentage Score		74%	68%	67%	66%	61%	59%

# Final Site Rankings:

---

Rank	Site No. / Address	Percent Score (raw score)
1	Site 6 (90 Washington Street)	74% (63 out of 85)
2	Site 2 (17 McGrath Hwy)	68% (58 out of 85)
3	Site 3 (185 Somerville Ave)	67% (57 out of 85)
4	Site 4 (501 Mystic Valley Pkwy)	66% (56 out of 85)
5	Site 5 (526 Somerville Ave)	61% (52 out of 85)
6	Site 1 (17 Inner Belt Rd)	59% (50 out of 85)

# Recommended Location:

## 90 Washington Street Benefits:

- Site is of adequate size.
- Site can accommodate Engine 3.
- Engine 3 response times would provide 92% less than 5 minutes.
- Good orientation for visibility and connection to Washington Street.



1 90 WASHINGTON ST - GROUND FLOOR  
SCALE: 1" = 30'

# 4. SITE ACQUISITION



# Recommended Location:



Capuano School

90 Washington

Washington St

New Washington St

Cobble Hill Apartments

Future T Station

# Site Boundaries



# Aerial Image



# Site Photos



# Site Photos



# Eminent domain

---



Public Purpose



Fair Market Value



M.G.L.c. 40, §14

# Municipal property acquisition process

- Enabled by MGL c. 40 Section 14
  - Allowed by 2/3 vote of Board of Aldermen
  - Required appropriation of funding
  - Must be for a public purpose
  - Cannot pay more than 125% of the average of the last three years' assessed value

# Eminent Domain Process

---

- Process regulated by MGL C. 79
  - Conduct appraisal
  - BOA vote to appropriate and take
  - Record Order of Taking within 30 days of vote
  - Notice of taking to owner
  - Pay Pro Tanto within 60 days of recording



# Appraisal

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- Date of appraisal: March 15, 2018
- Completed by Mark S. Reenstierna  
of T.H. Reenstierna, LLC
- MA Certified General Real Estate Appraiser #3803

# 5. FINANCES

# Current funding request:

---

- Two items currently held in the FY18-FY27 Capital Investment Plan (CIP) Project List:
  - Acquisition of 90 Washington St.: \$8.745 million
    - Added as a Critical Project to the June 2018 CIP
  - Construction of new public safety building
    - Has been included as a Critical Project since the creation of the CIP Project List in November 2016
    - CIP estimate for construction: \$36 million (costs will escalate)

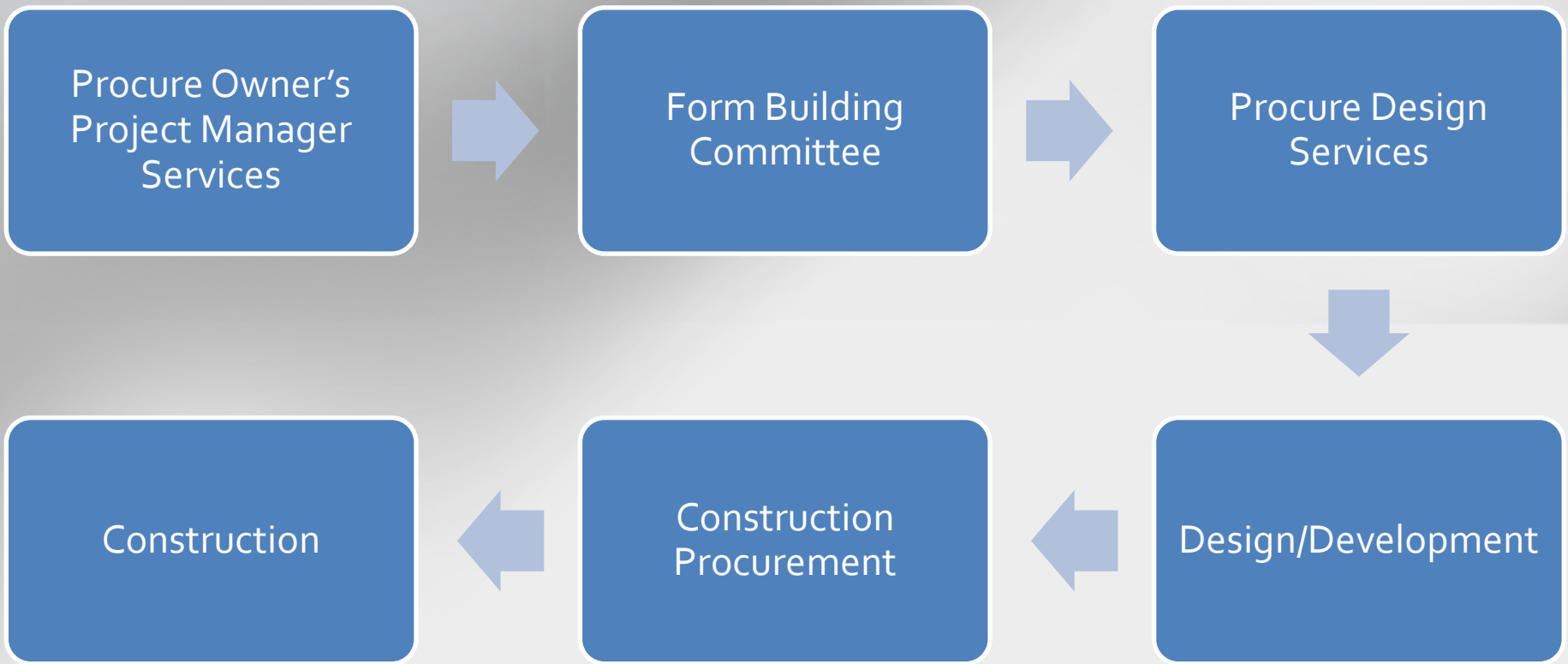
# 6. Next Steps

# Items currently before the BOA

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1. Order of Taking for 90 Washington St. (Agenda Item 206003)
2. \$8.745 million bond authorization & appropriation request to purchase 90 Washington St. (Agenda Item 206004)
3. \$1.86 million bond authorization & appropriation request for Owners Project Manager (OPM) & project management services for new public safety building (Agenda Item 206005)

# If BOA approves items, next steps are . . .



## Timeline:

- Design estimated to take one year.
- Construction estimated to take 18-24 months.



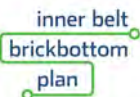
# INNER BELT BRICKBOTTOM PLAN



SEPTEMBER 2015



**GOODY CLANCY** with  
Carol R. Johnson Associates | Fay, Spofford & Thorndike  
Kittleson Associates | Placematters | SYSTRA | W-ZHA



City of Somerville  
Joseph A. Curtatone, Mayor





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## APPENDIX (SUPPLEMENTARY VOLUME)

- A. Abstracts of past circulation studies
- B. Existing Circulation Conditions Analysis
- C. Existing Circulation Conditions Technical Appendix
- D. Walkability Audit
- E. Urban Ring Corridor Shuttle Feasibility Analysis
- F. Office and Research Market and Positioning Analysis
- G. Not Used
- H. Infrastructure Financing Approach Analysis
- I. Build-out Alternatives
- J. Street Sections



# 1 | EXECUTIVE SUMMARY



The Inner Belt/Brickbottom study area, seen in part in the lower half of this photo, is a strategic location for mixed use development thanks to new transit connections to downtown Boston (top center) and East Cambridge (center right).

**T**he 140 acres of the Inner Belt/Brickbottom study area offer Somerville a special—and essential—opportunity for economic development at a transformative scale. As at Assembly Square and Boynton Yards, inauguration of new rail transit service to Inner Belt and Brickbottom is turning underutilized, partially forgotten industrial land into fertile ground for new jobs, businesses, homes, services, parks and cultural destinations that will drive prosperity in Somerville for decades to come. Constrained for years by limited access and visibility, Inner Belt and Brickbottom are quickly becoming a regionally significant workplace center as well as a center of community for Somerville.

The following pages provide an overview of the Inner Belt Brickbottom Plan through these components:

- Community-based vision
- Economic development potential
- Integrated transportation and development approach
- Distinctive districts
- Public places network
- Inner Belt/Brickbottom illustrated vision
- Development framework

See later chapters on *Critical Questions*, *Master Plan* and *Putting the Plan to Work* for more detail on the plan

## CORE VALUES OF THIS PLAN

*Five value principles, informed by community engagement during the Inner Belt/Brickbottom planning process, should guide development of buildings, infrastructure and public spaces in the study area.*



### **Create great places for people**

Inner Belt and Brickbottom lack strong identity today, owing to their isolation, internal obstacles and impersonal nature of much development. Enhance market position and sense of community by using all new investments in buildings, streets and other public spaces to create people-centered places.



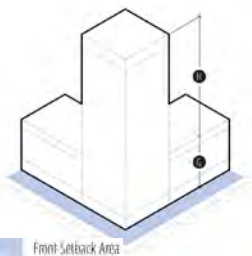
### **Connect neighborhood to neighborhood**

Physical barriers limit access to/from and awareness of Inner Belt and Brickbottom. Complement new Green Line service with critical walking, transit, biking and driving connections to make the study area a major regional destination for working, living and playing.



### **Grow the economy**

Green Line service offers transformative opportunities for Inner Belt/Brickbottom—if the streets, buildings and land uses around Washington Station create a safe, inviting walking environment. The greater the quality of walkable streets and transit access in the area, the greater the extent of job and business growth it will foster.



### **Coordinate public and private investment**

Market-driven private investment is the most important vehicle for economic development in the study area and Somerville overall. Invite investment through clear, predictable development approval standards that maximize value potential throughout the study area.



### **Deliver ongoing value with sustainable development approaches**

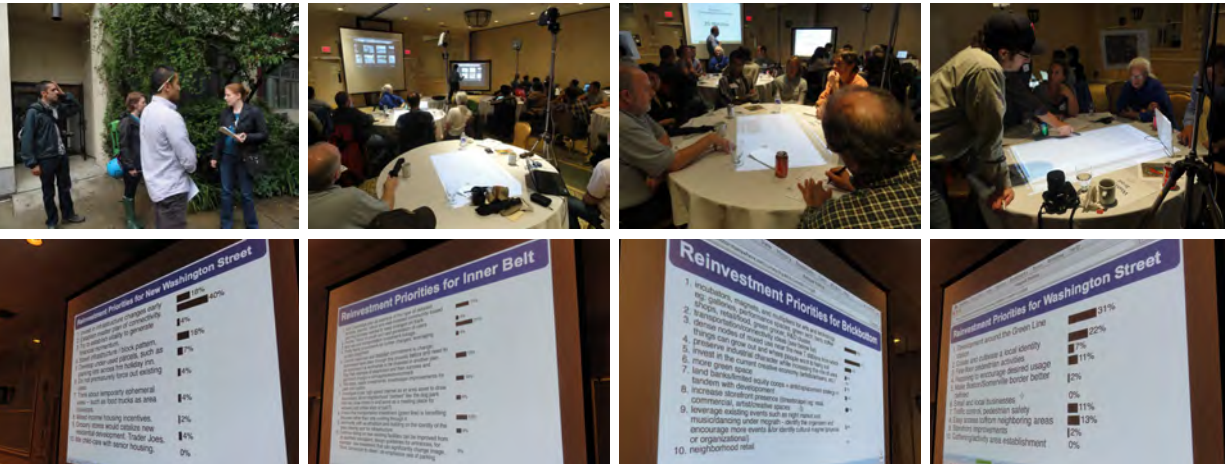
To ensure Inner Belt and Brickbottom support economic and community development in Somerville for decades to come, invest in infrastructure, real estate and businesses in ways that simultaneously build sustainable value in three key areas: the economy, social community, and the natural environment.

## COMMUNITY ENGAGEMENT

*The planning process invited dialogue on the future for Inner Belt and Brickbottom through a public “walkshop,” public vision workshop, and a two-year series of public focus group meetings including key community, business and government agency stakeholders.*

### WALKSHOP | June 2011

Collaborative observation of the study area and identification of opportunities, challenges, and priorities.



### VISION WORKSHOP | October 2011

Building vision alternatives together using maps; blocks representing market-driven development, streets and parks; and images showing possible models to follow.



# ECONOMIC DEVELOPMENT POTENTIAL

*Market-driven opportunity for business and real estate development sets the foundation for the Inner Belt/Brickbottom Plan—informing decisions around land use mix, infrastructure priorities, urban design and other critical plan elements.*

## Market position: distinguished by access and development choices unparalleled in the Boston region

### Access choices

- Multiple transit corridors with access to skilled workforce, Kendall, Boston
- Safe, inviting pedestrian network connected to neighborhoods, Union Square
- Unique off-street biking and recreation network
- Excellent road access

### Development choices

- Multiple large parcels, and opportunities to further aggregate large parcels, offering flexible program, building, street and amenity configurations
- Substantial opportunity for building heights from 5 to 20 or more stories in many locations—adding significant development capacity, views, and visibility
- Multiple parcels with opportunity for large floorplates of 50,000sf or more, serving certain office and fabrication program needs
- Choice of working within established address/identity contexts in parts of Brickbottom and the Washington Street corridor, or defining new address/identity environment

### Priority assets to leverage for near-term development

- New Green Line service at Washington Street; existing Orange Line service at Sullivan Square
- Established character, address and mixed-use context in Brickbottom and along Washington Street
- Lower land cost than competing areas
- Opportunity for smaller office/research buildings between 50,000sf and 100,000sf
- Established life sciences presence on Roland Street
- Established housing market potential

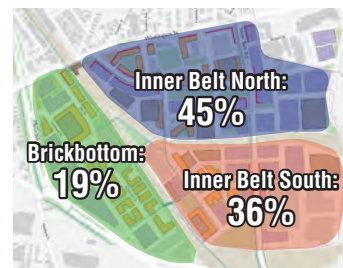
### Priority assets to leverage for longer-term development

- Large, flexible sites to accommodate spillover development as Kendall Square and North Point development opportunities diminish
- Direct connections to downtown Boston and Cambridge office and research centers support complementary general office and research space development
- Potential for large buildings, 200,000sf or more
- Urban Ring transit corridor connections
- New, prominent address identity of grade-level McGrath boulevard

## Inner Belt/Brickbottom Program Summary

- 5.5 to 10 million sf overall
- 60% office/research/fabrication, 37% housing, 3% retail

	2020 OPPORTUNITY	2035 OPPORTUNITY	SOMERVISION 2030 GOAL	MAPC 2035 PROJECTIONS — HB33	MAPC 2035 PROJECTIONS — CITYWIDE
Office and Research & Development Space	250,000sf	3,250,000sf			
Retail Space	45,000sf	165,000sf			
New Jobs	900	10,250	10,000-11,000	4,879	15,130
New Housing Units	360	2,250	2,000-2,500	838	5,869
New Residents	540	3,400		1,050	6,129



*Approximate share of new development floor space in the study area.*

# INTEGRATED TRANSPORTATION AND DEVELOPMENT APPROACH

**High-value, mixed use development potential will benefit from first class walking, transit and bike access that reduces need for costly roadway improvements.**

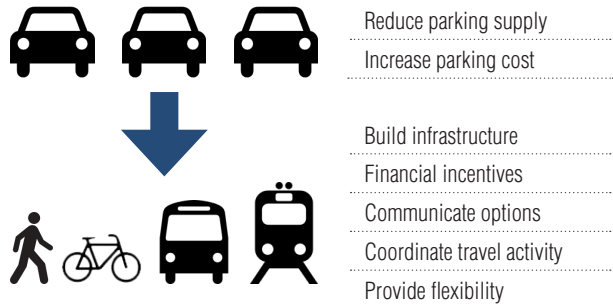
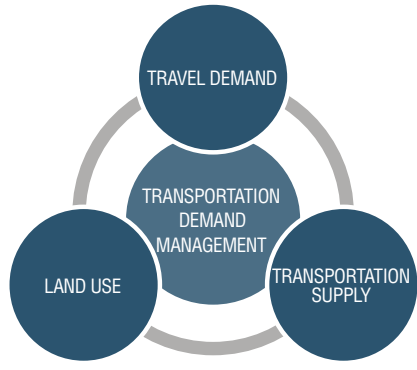
## Travel Demand Management

**Make the most of assets**

- Leverage new Green Line station and Urban Ring transit corridor
- Emphasize transit, walkability, and great bike infrastructure

**A practical approach**

- Minimize expense of mitigating existing barriers to circulation
- Implementing TDM strategies can cost relatively little for comparable benefits in many cases
- Minimizing new traffic helps:
- Promote livability within and around IBBB
- Preserve vehicle capacity so IBBB can continue to benefit from convenient access to I-93 and other regional roads for trips that must remain vehicular (i.e. trucks)





# DISTINCTIVE DISTRICTS THAT BUILD MARKET POSITION AND COMMUNITY CHARACTER

## INNER BELT GATEWAY: WASHINGTON

### Public realm

- Sidewalks: accommodating mixed residential and retail with planted & paved setbacks; buffered from traffic by parking, trees
- Plantings: Canopy trees marking Somerville gateway and mitigating scale transition across street

### Built form

- Height range: 4–12 stories
- Transitioning to East Somerville neighborhood scale through height step-backs, facade articulation



Pearl District—Portland, OR

## BRICKBOTTOM: MCGRATH EDGE



Waterside Blvd—Norfolk, VA



Commonwealth Ave—Boston, MA



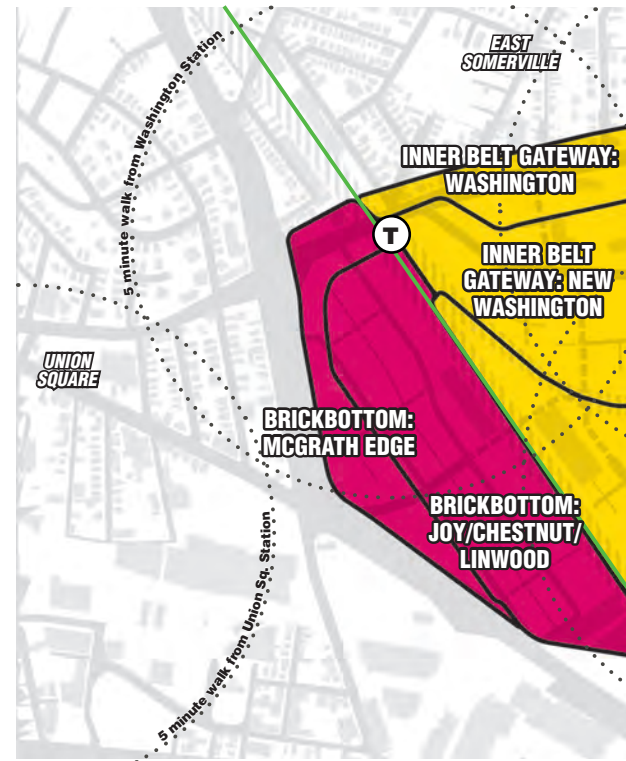
Memphis, TN

### Public realm

- Sidewalks: generous scale, buffered from traffic by parking and/or plantings
- Plantings: canopy street trees framing boulevard greenway; compact ornamental front yards

### Built form

- Height range: 4–12 stories
- Greater height possible as landmarks and to leverage visibility, value. More refined, larger scale version of Joy/Chestnut/Linwood character



## BRICKBOTTOM: JOY/CHESTNUT/LINWOOD

### Public realm

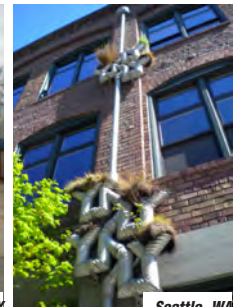
- Sidewalks: compact; accommodating art, dining, periodic events; shared pedestrian/vehicle spaces
- Plantings: intermittent street trees supplemented by planters, green walls

### Built form

- Height range: 4 – 6 stories
- Character: industrial, significant transparency; smaller building scale, larger window scale



Southtown—San Antonio, TX

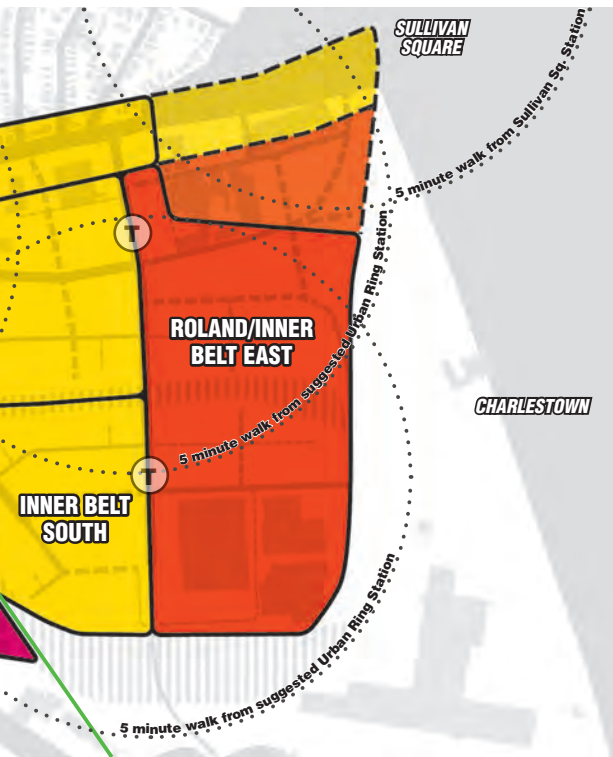


Seattle, WA

*The Inner Belt and Brickbottom portions of the study area each possess unique characteristics that will influence private and public investment in them. The two areas are further distinguished by emerging subdistricts with unique sense of place, shaping and shaped by unique market position and community culture.*



Pentagon Row—Arlington, VA



### INNER BELT GATEWAY: NEW WASHINGTON

#### Public realm

- Sidewalks: generous width, tied into park landscape; accommodate mixed office, retail, housing frontage
- Plantings: canopy trees, lawn, ornamental plantings



Gastown—Vancouver, BC

#### Built form

- Height range: 4–20 stories
- Significant transparency; mix of materials—traditional and modern, dark and light



University Park—Cambridge, MA

### ROLAND/INNER BELT EAST

#### Public realm

- Sidewalks: generous on Inner Belt & New Washington, compact on Roland, Third
- Plantings: canopy trees, tree lawns, planters, green roofs; buffer rail infrastructure



Georgetown—Washington DC

#### Built form

- Height range: 4–20 stories
- Complement industrial character of Roland buildings, transition to modern face on Inner Belt; opportunity for large floorplates, retaining pedestrian scale along Inner Belt; significant transparency, height



South Lake Union—Seattle, WA

### INNER BELT SOUTH

#### Public realm

- Sidewalks: moderate width; accommodate mixed office, housing, occasional retail frontage
- Plantings: trees, planters; extend scale of park spaces and greenways; buffer rail infrastructure



#### Built form

- Height range: 4–20+ stories
- Significant height, transparency to leverage views; large floorplates possible if ped scale retained



South Lake Union—Seattle, WA

# A PUBLIC PLACES NETWORK CREATING DESTINATIONS FOR ALL OF SOMERVILLE—AND THE REGION

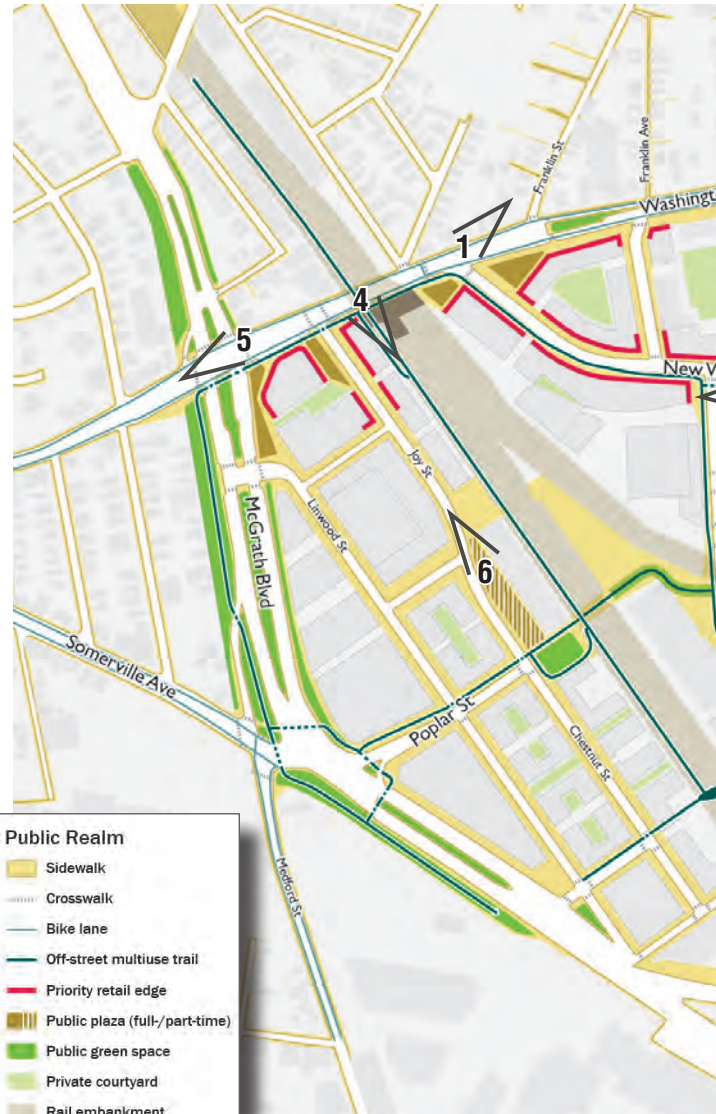
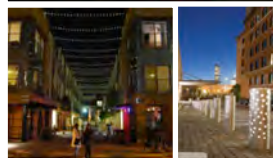
## DISTINCTIVE DESIGN THEMES FOR PARKS AND STREETS

### Inner Belt

- Larger scale
- Stone, metal, concrete, refined
- Distinctive, contemporary
- Dedicated activity spaces

### Brickbottom

- Smaller scale
- Brick, metal, concrete, rugged
- Dynamic, creative
- Overlapping activity spaces



## 6 | JOY ST.

INFILL: MIX OF OFFICE, ARTS, HOUSING, LIGHT INDUSTRY

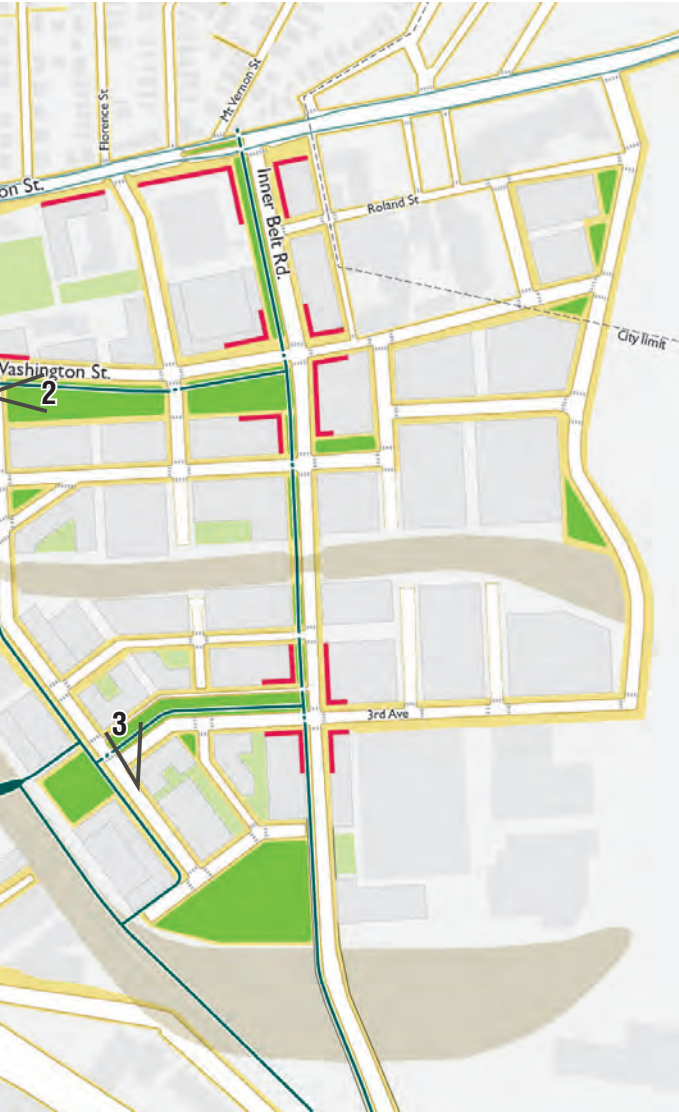
STREETSCAPE, WALKING AND BIKING IMPROVEMENTS LINKING BRICKBOTTOM TO GREEN LINE

DUAL USE OF PARKING/LOADING AREA FOR OCCASIONAL PUBLIC/ARTS EVENTS



NIGHT TIME ACTIVITY

**A variety of parks, streets and pathways designed for people introduce activity and identity where lacking today. This supports a vibrant live/work/play environment that attracts new jobs and development, and forms a new center of community within Somerville.**



### 1 | WASHINGTON ST. EAST SIDE

HOUSING

EARLY STAGE SMALL-OFFICE & RETAIL DEVELOPMENT

PUBLIC SIDEWALKS & PLAZAS WITH ENGAGING BUILDING USES, ART, DESIGN

EXPANDED, IMPROVED WALKING NETWORK



### 2 | NEW WASHINGTON PARK

FLEXIBILITY FOR SIGNIFICANT BUILDING HEIGHT AND FLOORPLATES—DESIGNED TO HUMAN SCALE

PUBLIC SPACE AMENITY SERVING WORKERS, RESIDENTS, VISITORS



### 3 | INNER BELT SOUTH

HIGH-VALUE COMMERCIAL AND HOUSING DEVELOPMENT

NEW CONNECTIONS TO WASHINGTON STATION, BRICKBOTTOM

PARK, COMMUNITY PATH CONNECTIONS CREATING DISTINCT SENSE OF PLACE



### 5 | WASHINGTON ST. WEST SIDE

MIXED OFFICE AND HOUSING WITH GROUND FLOOR RETAIL

EXPANDED, IMPROVED WALKING AND BIKING NETWORK

STATION INTEGRATED WITH BUILDING DESIGN

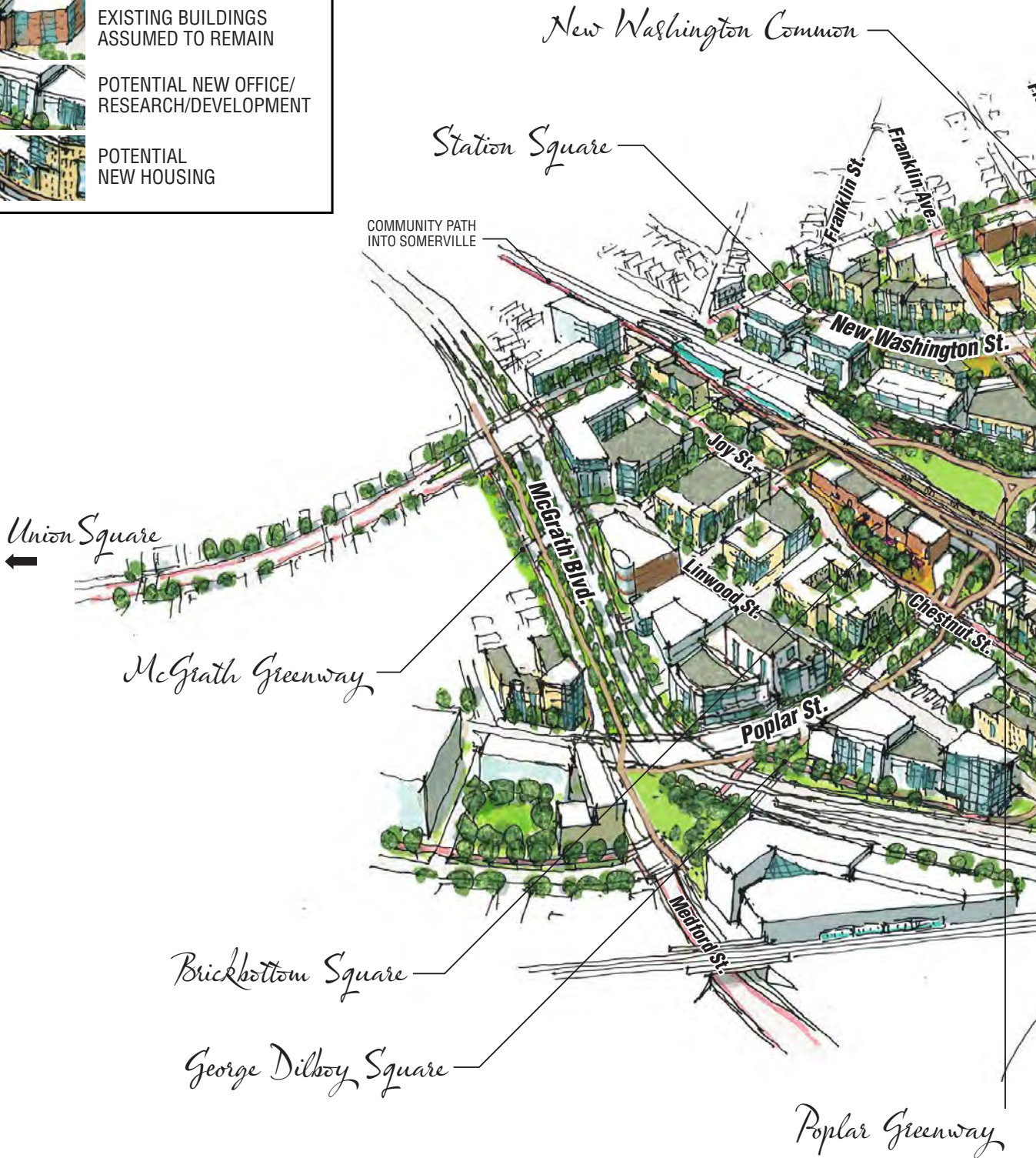


### 4 | COMMUNITY PATH AT WASHINGTON STATION

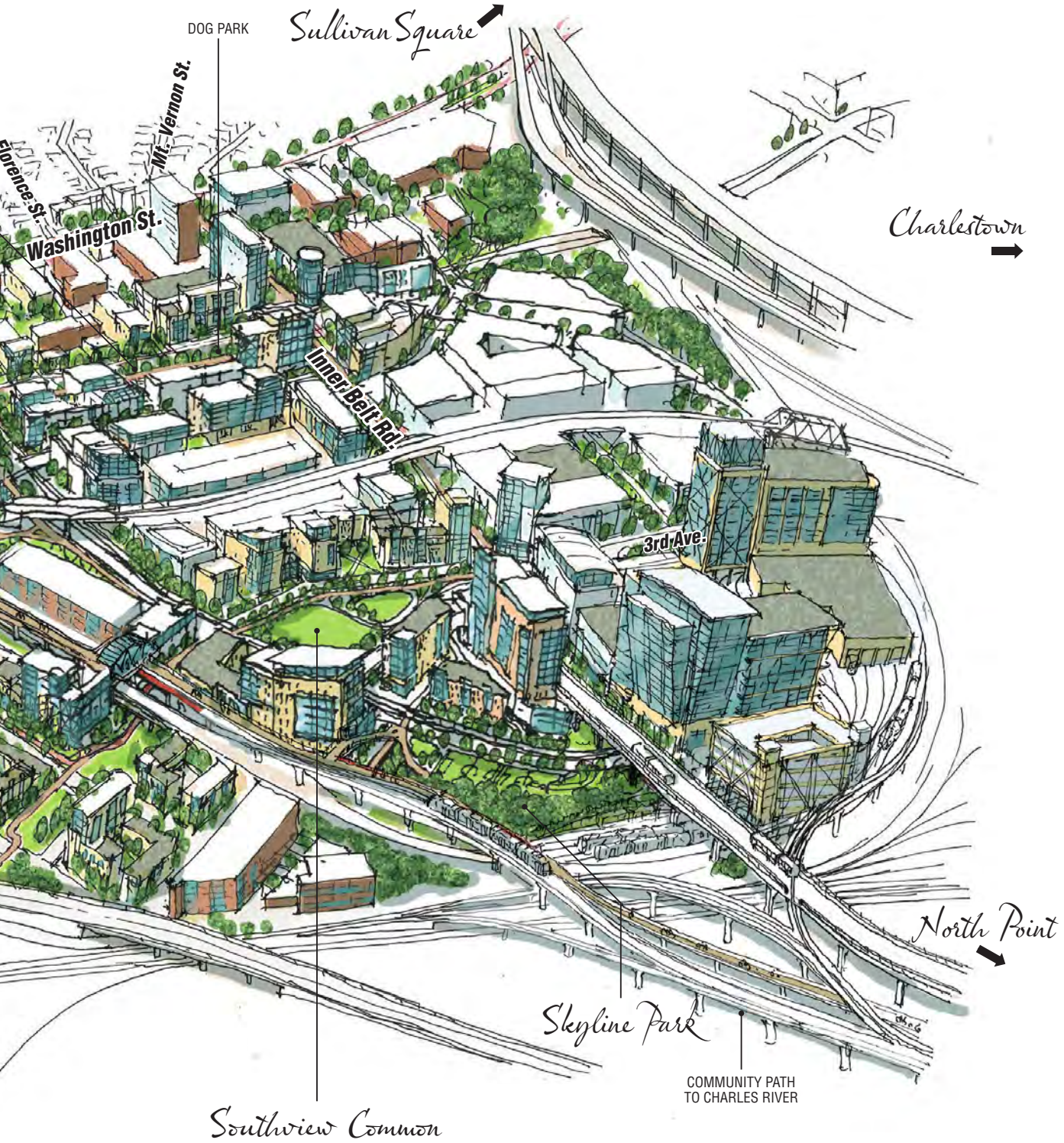


# INNER BELT/BRICKBOTTOM VISION

	EXISTING BUILDINGS ASSUMED TO REMAIN
	POTENTIAL NEW OFFICE/RESEARCH/DEVELOPMENT
	POTENTIAL NEW HOUSING



**A conceptual scenario of potential new real estate development, supportive street, park and transit infrastructure, and the places they create together.**



# PUTTING THE PLAN TO WORK: DEVELOPMENT FRAMEWORK

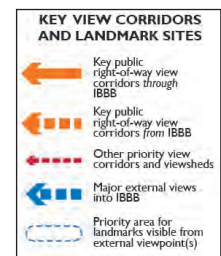
## STREET NETWORK



## EFFICIENT SHARED-USE PARKING

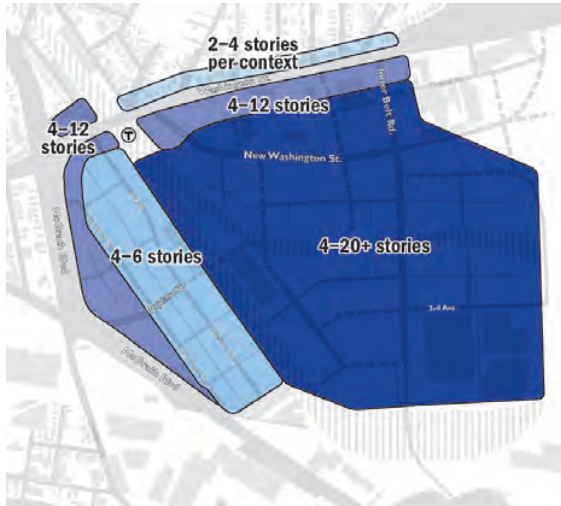


## VIEW CORRIDORS



***A guide to land and infrastructure development that adds predictability and value while retaining the flexibility to accommodate various market-driven investment opportunities, creative design approaches and public open space goals as Inner Belt and Brickbottom mature.***

## DEVELOPMENT INTENSITY



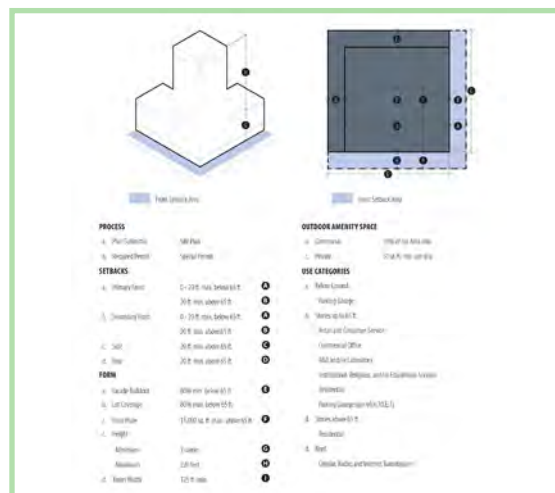
## LAND USE SCENARIO

- Office and research/development welcome anywhere in study area
- Housing welcome west of Inner Belt Road
- Retail welcome anywhere, but should be prioritized in clusters indicated
- Large-floorplate buildings (over about 30,000sf) and fabrication uses welcome in areas indicated



## DEVELOPMENT CODE STRATEGIES

- Addressing building and site development/rehabilitation as well as its integration with improved and new street corridors
- Brickbottom: Form-based
  - > Addresses smaller and more complex existing parcel boundaries, ownership
  - > Promotes as-of-right opportunity
- Inner Belt: Master plan
  - > Addresses larger scale sites with greater flexibility
  - > Design review required
- 5.5 to 10 million sf overall
- 60% office/research/fabrication, 37% housing, 3% retail





## 2 | CRITICAL QUESTIONS SHAPING THE FUTURE OF INNER BELT AND BRICKBOTTOM



What changes in Inner Belt and Brickbottom will be most effective in achieving community goals?

**T**his planning process for Inner Belt and Brickbottom examined a comprehensive set of critical questions whose answers provided fundamental guidance to the plan. The questions address issues of market-driven investment potential, priority infrastructure improvements, and implementation mechanisms that had to be considered together to determine the most appropriate plan approaches—those that are both transformative in their vision, and practical in their application. This chapter begins with background information on public engagement and study area data, then summarizes findings to a series of twelve critical questions.

## BACKGROUND

- The Inner Belt/Brickbottom Plan public process
- Inner Belt and Brickbottom Today: critical figures

## CRITICAL QUESTIONS

1. How does Somerville’s strategic plan guide change in Inner Belt and Brickbottom?
2. What is the regional outlook for smart growth in Greater Boston?
3. What recent investments have been made in Inner Belt/Brickbottom?
4. How can we most effectively harness the study area’s economic development potential?
5. What access improvements would do the most to unlock opportunity in the study area?
6. How can we fund needed infrastructure improvements using the value of new development?
7. What will new Green Line service bring—and when?
8. How will the Green Line station at Brickbottom work?
9. When will McGrath Highway be rebuilt as an at-grade roadway connecting neighborhoods?
10. Will congested roads threaten our smart growth goals?
11. Will stormwater drainage threaten growth in Inner Belt & Brickbottom?
12. What constraints do “The Tubes” impose?
13. How can zoning reform work for Inner Belt and Brickbottom?

## PUBLIC PROCESS



INNER BELT / BRICKBOTTOM PLAN



GROUNDING MCGRATH



MBTA GREEN LINE

Year	Month	Inner Belt / Brickbottom Plan	Grounding McGrath	MBTA Green Line
2011	J			
	F			
	M			
	A			
	M	FOCUS GROUP   MAY 16, 2011		MAY 26, 2011
	J	PUBLIC MEETING #1   JUNE 25, 2011 WALKSHOP	JUNE 29, 2011	JUNE 23, 2011
	J			
	A	FOCUS GROUP   AUGUST 4, 2011	AUGUST 3, 2011	AUGUST 25, 2011
	S	FOCUS GROUP   SEPTEMBER 21, 2011	SEPTEMBER 20, 2011	SEPTEMBER 15, 2011
	O	PUBLIC MEETING #2   OCTOBER 5, 2011 VISION WORKSHOP		
	N	FOCUS GROUP   NOVEMBER 9, 2011		
	D		JUNE 29, 2011	
2012	J			
	F			FEBRUARY 8, 2012
	M		DECEMBER 12, 2011	
	A			
	M			
	J	FOCUS GROUP   JUNE 29, 2012		
	J			
	A			
	S		MARCH 7, 2012	
	O			
	N			NOVEMBER 15, 2012
	D			DECEMBER 11, 2012
2013	J			
	F		FEBRUARY 13, 2013	
	M			
	A		APRIL 25, 2013	
	M	FOCUS GROUP   MAY 15, 2013	MAY 15, 2013	
	J			JUNE 11, 2013
	J			
	A			
	S			
	O	FOCUS GROUP   OCTOBER 24, 2013		OCTOBER 3, 2013
	N			
	D	PUBLIC MEETING #3   DECEMBER 16, 2013 FINAL PLAN OPEN HOUSE		

Community conversation on priorities for the Inner Belt and Brickbottom study area was an important foundation of the planning process. The conversation occurred in two major types of forums. **Focus Group** meetings engaged a selected group of stakeholders to discuss planning questions and concepts in detail. These stakeholders included property and business owners,

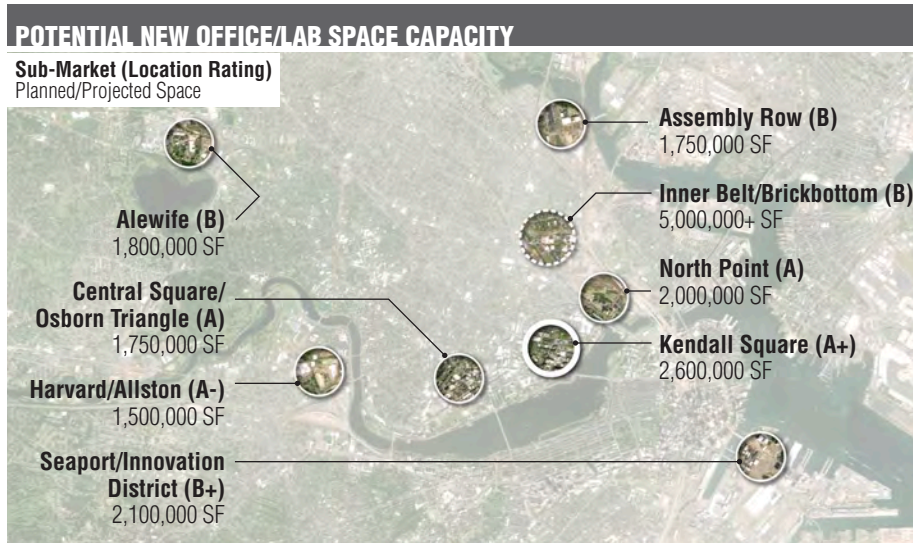
residents, other Somerville community members, and planning staff from Boston and Cambridge, which directly adjoin the study area. Focus Group meetings also welcomed attendance by the general public. Public meetings expressly invited the broader Somerville community and included significant participation by Focus Group members.



## INNER BELT & BRICKBOTTOM TODAY

Figures and images below highlight important data and conditions that inform the critical questions on the following pages.

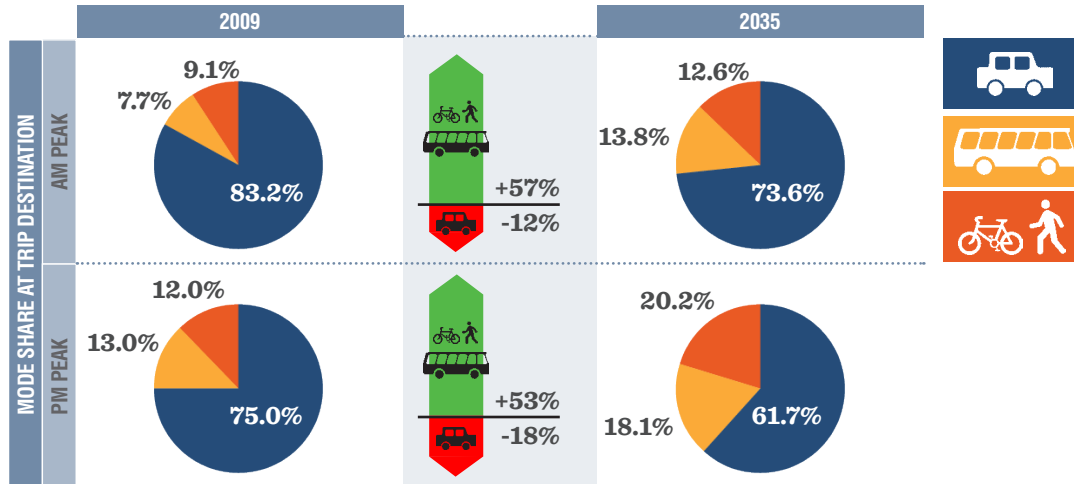
### Competitive life sciences development areas



*Inner Belt/Brickbottom has two to three times the development capacity of peer locations—and high potential to leverage research cluster proximity*

	CLUSTER PROXIMITY	EASE OF DEVELOPMENT	ACCESS AMENITIES	OTHER CONSIDERATIONS	SUM: DEVELOPER CONFIDENCE
<b>Kendall Area (A+)</b>	Best	Redevelopment	Red Line station	Best location; highest rent	Highest
<b>North Point (A)</b>	Adjacent	Ready	Green Line station	Can accommodate large-scale development	Very good/future
<b>Central Square/Osborn Triangle (A)</b>	Adjacent	Redevelopment	Red Line station	Parts of University Park already closer to Central than Kendall	Very good/future
<b>Harvard/Allston (A-)</b>	Potential new cluster location	Land assembled	No MBTA	Harvard University as anchor investor and tenant	Potentially excellent
<b>Seaport/Innovation District (B+)</b>	No	Ready; ample underdeveloped land	Silver Line	Waterfront; proximity to downtown Boston and airport	Moderate
<b>Alewife (B)</b>	No	Redevelopment	Red Line station; not pedestrian-friendly	Suburban environment w/o suburban advantages	Moderate
<b>Assembly Row (B)</b>	No	Needs infrastructure; ample underdeveloped land	Future Orange Line station	Planned environment will add amenity	Moderate
<b>Inner Belt/Brickbottom (B)</b>	No	Redevelopment/ portions need infrastructure	Future Green Line station	Very good access to I-93; two T stops	Moderate

**Regional transportation and development projections assume a modest shift toward walking, transit, and biking in the study area.**



	WALK SCORE	TRANSIT SCORE
Inner Belt Brickbottom	85	54
Davis Square	97	71
City Averages	85	55

VEHICULAR TRAFFIC	CARS / DAY
Interstate 93	250,000
McGrath Highway	33,000
Washington Street	23,000
Inner Belt Road	6,000
Joy Street	2,100
New Washington Street	2,000
Linwood Street	1,300

BUS RIDERSHIP	RIDERS / DAY
<b>All routes</b>	<b>3,200</b>
Route 80	590
Route 86	600
Route 87	432
Route 88	630
Route 90	220
Route 91	445
Route CT-2	260

PROPERTY IMPROVEMENTS	\$
<b>Total 2004–2013</b>	<b>51 million</b>
2004	0.9 million
2005	6.5 million
2006	3.5 million
2007	26.3 million
2008	1.3 million
2009	6.2 million
2010	8.2 million
2011	0.1 million
2012	2.0 million
2013	0.1 million

TAX LEVY	\$/YEAR
Personal property	6.2 million
Real property	2.5 million

EMPLOYMENT	JOBS
Total jobs	1,500

LAND AREA	ACRES
Study area	195
Rail right-of way	43
Boston Engine Terminal	23
Interstate 93	7
NSTAR Land	6
Other MBTA land	3
Approximate land area available for redevelopment or reuse	100

OTHER SPACE	ACRES
Parking lots	32
Civic space	2

BUILT SPACE	SQ. FT.
Warehouse / garage	1,000,000
Office	600,000
Residential	200,000
Hotel	125,000

HOUSING	UNITS
Total units	368
Affordable units	223

## CRITICAL QUESTION 1

## How does Somerville's strategic plan guide change in Inner Belt and Brickbottom?

Recognizing the transformational impact that Somerville's six new Green Line stations would have on their neighborhoods, and on the City as a whole, Mayor Joe Curtatone took an unprecedented step in 2008—he asked community members to prepare the city's first-ever Comprehensive Plan to guide growth and development. A four-year public process ensued, and in 2012 the City's Board of Aldermen and Planning Board adopted the SomerVision Comprehensive Plan as the official master plan for Somerville under Massachusetts General Law.

SomerVision is a community-based plan intended to ensure that Somerville remains a great place to live, work, play and raise a family. Existing trends suggest that absent a strategic plan, regional economic development will once again leapfrog Somerville, while extreme housing demand will fundamentally erode our character as an accessible, mixed-income community.

Somerville residents articulated a series of core values during the planning process, advocating for a vibrant and diversified economy, a range of choices in the housing market, environmental stewardship, accessible urban streetscapes, and innovation in government.

Next, a Steering Committee of sixty residents was formed, representing every neighborhood of the City and every public agency or advocacy organization operating in Somerville. This group worked for more than two years to prepare an overall public policy framework for the City, addressing topics from infrastructure planning to public education to the small business environment.

By the end of the process, the Steering Committee had listed nearly 600 goals, policies and actions. Participants recognized the need to telescope out to a bigger picture, so their final element of work became the SomerVision Numbers, a series of aspirational targets for land use and development that would be essential in order to meet the more detailed goals. The SomerVision Numbers call for roughly 18 million square feet of new development over the next two decades, with the vast majority in places like Inner Belt and Brickbottom, where infrastructure can support it and economies of scale can allow private property owners to make a business case for smart growth while helping underwrite the costs of public benefits like new open space and affordable housing.



**30,000 new jobs** as part of a reasonable plan to create opportunity for all Somerville workers and entrepreneurs.



**125 new acres of publicly-accessible open space** as part of our realistic plan to provide high-quality and well-programmed community spaces.



**6,000 new housing units—1,200 permanently affordable** as part of a sensitive plan to attract and retain Somerville's best asset: its people.



**50% of new trips via transit, bike, or walking** as part of an equitable plan for access and circulation to and through the City.



**85% of new development in transformative area** as part of a predictable land use plan that protects neighborhood character.

## A LEGALLY-ADOPTED PLAN

Comprehensive Plans (known as Master Plans in some states) are a best practice in public administration. When community members agree on a shared vision for the future, it can become easier to build consensus on policies and projects that implement the vision. Somerville is a leader in municipal management, and in 2012 the City formally adopted its first-ever Comprehensive Plan for the future.



Endorsed by the Somerville Board of Aldermen April 12th, 2012  
Adopted by the Somerville Planning Board April 19th, 2012

*Somerville: an Exceptional Place to Live, Work, Play, and Raise a Family*

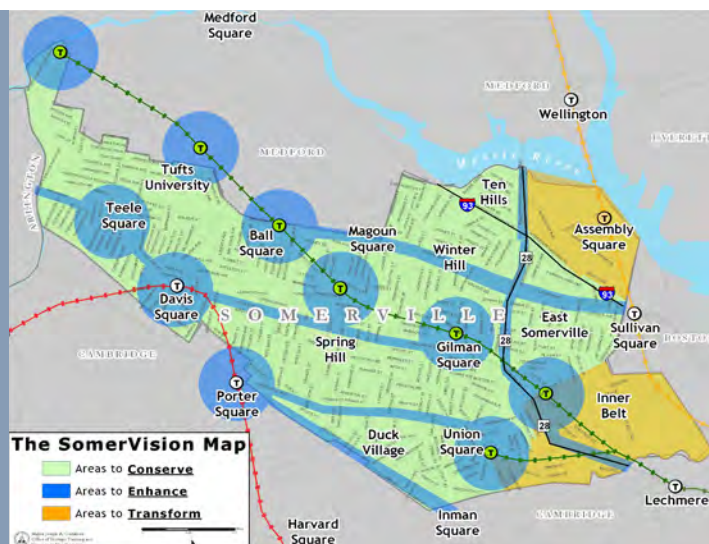
## PUBLIC VISIONING

The four-year public process around SomerVision brought hundreds of residents, businesspersons and community leaders together, including numerous stakeholders from the Inner Belt and Brickbottom districts. An early step in the process was to understand what core values the community. The "Word Cloud" illustrates terms that community members used most frequently during the visioning process.



## SOMERVISION MAP

SomerVision is both a preservation plan and a growth plan. Residents want to steer market energy away from traditional neighborhoods of two- and three-family homes and into existing commercial squares and transitioning industrial districts like Inner Belt and Brickbottom. Roughly 365 acres of industrial land exist on Somerville's eastern and southern edges: plenty of space for new growth that is designed at a human scale and integrated into the City's fabric of great neighborhoods.





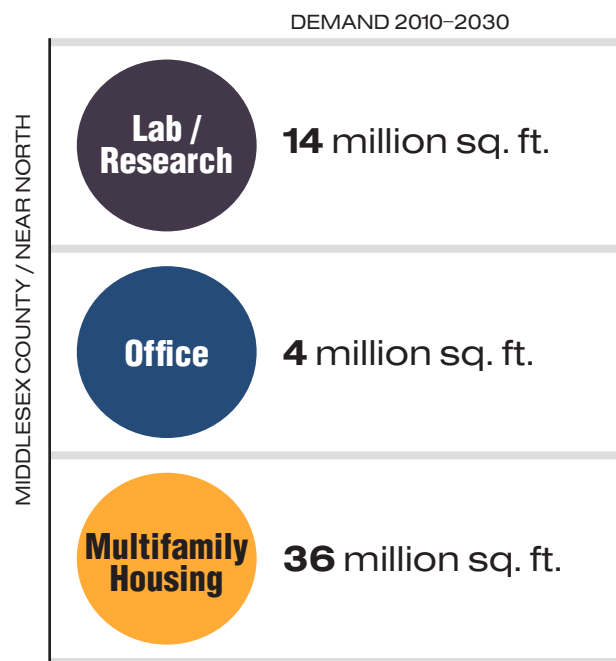
CRITICAL QUESTION **2**

# What is the regional outlook for smart growth in Greater Boston?

The Boston region gets smart growth. In 2008, after five years of public dialogue, the Metropolitan Area Planning Council and its 101 member municipalities adopted a long-range strategic plan for the region’s future. The MetroFuture Plan is an organizing framework to keep greater Boston livable, healthy and economically competitive. It calls for roughly 300,000 new jobs and 350,000 new housing units to be created by 2030, with the vast majority being built in urban core communities and walkable regional centers well-served by public transportation. We all know that snarled roadways undermine our quality of life as well as new economic development efforts, and our regional plan offers us a viable alternative.

At the local level, municipal governments in our region are creating plans that are in line with the regional vision for walkable smart growth. Every community has its own specific needs and opportunities, but neighboring municipalities are increasingly learning that coordinated plans produce better results. For example, the City of Boston and the City of Somerville have used an integrated approach to match up Boston’s plans for Sullivan Square and Somerville’s plans for the Inner Belt. And the City of Cambridge has partnered with Somerville to guide the 45-acre NorthPoint development project, which straddles the municipal boundary and is currently under construction.

In our era of limited resources, it is essential that local governments continue to collaborate, so that public and private investments reinforce each other. It is also essential that our investments are prioritized around walking, bicycling and mass transit. Federal and state funding are being allocated in a competitive environment, and communities that can’t demonstrate a commitment to walkability and to regional coordination are



losing out. For example, in 2010 and 2011, the federal Partnership for Sustainable Communities awarded major discretionary planning grants to the City of Boston (\$2 million), the City of Somerville (\$2 million) and the Metropolitan Area Planning Council (\$4 million) because of proven track records in creating new job and housing opportunities using transit-oriented development.

The Boston region has been a bright spot in United States’ economic recovery from the Great Recession of 2008, in part because our great neighborhoods attract skilled workers from all over the country and all over the globe. We must build on this progress and continue to position our region as a national leader in smart growth.

## A MARKET FOR WALKABILITY

Transitioning industrial areas in Charlestown, East Cambridge and eastern Somerville are helping meet market demand for new walkable, transit-oriented development. Assembly Square and North Point are under construction, providing clear evidence that smart growth and walkability are viable investments north of the traditional downtown real estate market. Inner Belt, Brickbottom, Union Square and Sullivan Square stand to benefit next.



## NORTH POINT

A large-scale mixed-use district is being built along the Cambridge-Somerville border adjacent to the Lechmere Green Line station. Collaborative planning and zoning efforts between the two cities have helped streamline development totaling roughly 5 million square feet. Upon completion, roughly half of the new space will be commercial and half will be residential. Major open space amenities are included in the development plans.



## ASSEMBLY SQUARE

Fifteen years in the making, a great new Somerville neighborhood is under construction on the shoreline of the Mystic River. Assembly Square is a 125-acre former industrial district, isolated by elevated freeways and railroads. Roughly 3 million square feet of commercial development and 2 million square feet of residential development are being built, along with a new MBTA Orange Line subway stop that will open in 2014.



CRITICAL QUESTION **3**

# What recent investments have been made in Inner Belt / Brickbottom?

More than **\$50 million** in permitted construction has been invested in the past ten years.

The Inner Belt and Brickbottom districts are home to 400 residents, 100 employers, and 750 workers. The low density of these districts and their unfriendly pedestrian environment hide a healthy business

climate that features low vacancy rates and four of the ten largest taxpaying parcels in Somerville.

Important public and private investments have been made in recent years. Since 2008, tens of millions of dollars have been spent on new civic spaces, resurfaced roadways, gateway signage, facade improvements, and major property acquisitions. Businesses have expanded, and the area’s first transit-oriented development project has been permitted. These investments should be celebrated, and should inform phasing of the Master Plan’s implementation activities.

- A. Holiday Inn Bunker Hill repositioning
  - B. Inner Belt Gateway Sign
  - C. Triumvirate Environmental expansion and headquarters acquisition
  - D. 150-200 Inner Belt Road sale and repositioning
  - E. Joy Street Studios facade improvement and repositioning
  - F. Grossman Marketing corporate headquarters expansion
  - G. 90 Washington Street mixed-use redevelopment permitting
1. Zero New Washington off-leash recreation area construction
  2. Washington Street resurfacing (American Recovery and Reinvestment Act)
  3. Waste Transfer Facility demolition



## WASTE TRANSFER FACILITY

Brickbottom's Waste Transfer Facility has presented an unwelcoming front door for Somerville for sixty years. The two-acre City-owned property was leased by a private waste hauler, and hundreds of diesel trucks entered the site each day. In 2013, the City of Somerville demolished the hulking facility, sending a clear signal to neighbors and potential investors that Brickbottom is ready for higher-value investment.



## GATEWAYS

Clear signs of public and private investment are visible from the corner of Inner Belt Road and New Washington Street. The Bunker Hill Holiday Inn completed major facility upgrades in 2013. The City of Somerville completed the Zero New Washington Street dog park in 2009. Gateway signage was designed and financed in a collaboration between private landowners and business owners, with assistance from the City.



## BUSINESS EXPANSION

Many growing businesses in the district straddle the line between older economic models like warehousing, and new economy sectors like green technology and digital marketing. Triumvirate Environmental is a national leader in environmental engineering, and in 2012 bought a building on Inner Belt Road to serve as an expanded headquarters facility. Grossman Marketing is a fourth-generation family business on Cobble Hill Road that expanded employment from \_\_\_\_ to \_\_\_\_ in 2013.



## CRITICAL QUESTION 4

# How can we most effectively harness the study area's economic development potential?

## MARKET POTENTIAL AND POSITIONING; DEVELOPMENT ECONOMICS

SomerVision identifies economic development as a top priority for the Inner Belt and Brickbottom study area. It calls for adding more than 10,000 jobs in the study area by 2030. It also calls for adding more than 2,000 housing units in the study area, recognizing that housing helps attract business investment by supporting qualities businesses seek like presence of retail and active sidewalks. Through the guidance of this master plan, the study area can accommodate all of this and more, with flexibility to suit a variety of scenarios for mix and sequencing of different land uses. In all cases, it is recommended and assumed that at least 55% of building floor area be devoted to office, research & development and/or other employment-intensive uses.

### What is the market potential for office and research and development in Inner Belt and Brickbottom?

W-ZHA completed a market analysis for the study area by W-ZHA in 2011.

Key findings for **office-related** industry sectors:

- Principal industry sectors potentially interested in locating in the study area include
  - > Information
  - > Financial Activities
  - > Professional, scientific and Technical
  - > Management of Companies and Enterprises.
- Office buildings in urban locations in and around Boston have demonstrated lower vacancy and higher rents than suburban locations between 2001 and 2011. Inner Belt and Brickbottom can leverage the anticipated continuation of this trend.

- Principal location characteristics sought by businesses in these industry sectors include
  - > Multiple modes of access for workforce and clients
  - > Area with positive image to assist marketing and recruiting
  - > Services and amenities available
  - > Location near other office businesses
  - > Reasonable price

Key findings for **research and development**:

- Demand for research and development space in Middlesex County has been growing 5% annually and is expected to continue
- Kendall Square has limited capacity left (roughly 3 million square feet in the pipeline, roughly 3 million square feet more in potential largely dependent on Federally-owned Volpe site redevelopment)—and high rents. This will increase demand for additional research space conveniently accessible to Kendall Square, within approximately 5-10 years.
- Principal location characteristics sought by research and development businesses include—in **addition to those listed above for office**—the following:
  - > Skilled workforce available
  - > Presence of industry prestige/culture
  - > Ready ability to lease or build lab/research space
  - > Partnership opportunities with other businesses, institutions
  - > Nearby institutions with research funding potential

### How should we position Inner Belt and Brickbottom to be as competitive as possible against peer locations?

The adjacent table summarizing strengths of Inner Belt and Brickbottom against strengths of the principal locations it will compete against for business and real estate development. As the Inner Belt and Brickbottom area is just emerging as a center for high-value office and research and development activities, it has distinct near-term and long-term market positions.

The study area’s major assets include:

- Highly educated workforce residing in Somerville and adjacent cities
- Green Line service (coming soon enough to be a tangible benefit to prospective businesses, as demonstrated by this master plan)
- Orange Line service (for northeast portion of study area)
- Large parcels potentially available for redevelopment with potential for large building area and/or floor-plates (over 30,000sf)
- Large overall development potential (5 to 10 million square feet of building floor area)
- Excellent fiber optic/internet capacity
- Established character in Brickbottom
- Proximity to major office and research concentrations in Cambridge and Boston
- Good driving access to I-93, Cambridge and Boston

These assets can and should be leveraged now to attract an initial investment in development over the

next 5 years, establishing Inner Belt and Brickbottom as a regional center for high-value office and research and development. Development during this period will likely occur in relatively small increments of buildings up to 50,000-100,000sf.

Additional assets should be cultivated to unlock the study area’s much larger development potential over the next 5-20 years:

- Visible presence of housing, retail, hotels, the arts and parks/recreation opportunities in the study area
- Additional transit connections along the Urban Ring Corridor south to Kendall Square and the Longwood Medical and Academic Area, and north to Sullivan and Assembly Squares
- More complete, pedestrian-oriented network of streets within Inner Belt and Brickbottom, with walkable connections to Union Square and East Somerville
- A network of safe, convenient biking paths.

### Program opportunity summary

The table below outlines the potential number of new jobs, built floor area of office/research & development and retail space, housing units and residents possible in the study area through about 2035. [insert “Inner Belt/Brickbottom program summary” table, bullets and diagram from 12/16 boards; in the table, change the “office” label to “Office and Research & Development”] Figures are provided for both a 2020 timeframe—reflecting an initial round of development catalyzed by the inauguration of Green Line service—and a 2035 timeframe, reflecting near-capacity buildout. The 2035 figures are consistent with SomerVision goals.

	2020 OPPORTUNITY	2035 OPPORTUNITY	SOMERVISION 2030 GOAL	MAPC 2035 PROJECTIONS —IBBB	MAPC 2035 PROJECTIONS —CITYWIDE
<b>Office and Research &amp; Development Space</b>	250,000sf	3,250,000sf			
<b>Retail Space</b>	45,000sf	165,000sf			
<b>New Jobs</b>	900	10,250	10,000-11,000	4,879	15,130
<b>New Housing Units</b>	360	2,250	2,000-2,500	838	5,869
<b>New Residents</b>	540	3,400		1,050	6,129

## CRITICAL QUESTION 5

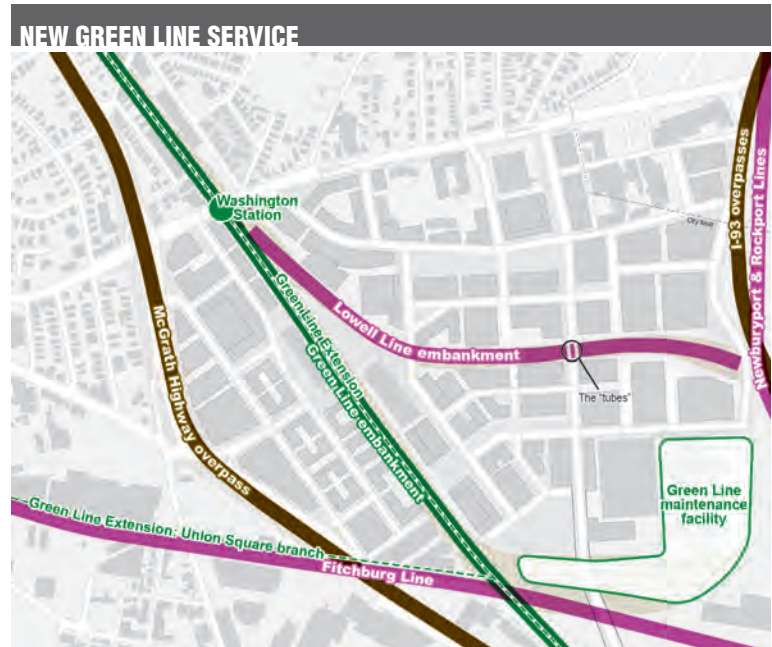
## What access improvements would do the most to unlock opportunity in the study area?

Economic development potential in Inner Belt and Brickbottom has clearly been limited by the area's access constraints. These constraints are created primarily by the presence of four different active rail corridors that have converged on the area's rail yards and Boston's North Station since the 1835–1850 period:

- the Lowell Line, whose embankment splits Inner Belt into north and south sections, connected primarily by the “tubes,” a makeshift underpass along Inner Belt Road that lacks walking and biking accommodations and chronically traps trucks with its low clearances
- the Green Line corridor, historically a segment of the Lowell Line, whose embankment separates Inner Belt from Brickbottom.
- the Fitchburg Line, which separates Inner Belt and Brickbottom from Somerville's Boynton Yards area and Cambridge
- the Newburyport and Rockport Lines, later reinforced as a barrier by I-93 and the Orange Line, separating Inner Belt from Charlestown.

In addition, new Green Line maintenance yard infrastructure will add tracks and a maintenance facility in the southeastern portion of Inner Belt, and a lightly used connecting railroad track at grade level poses some barriers along New Washington Street.

Finally, twentieth century road construction imposed additional barriers. The broad, elevated McGrath and O'Brien Highway corridors separate the study area from Union Square and other Somerville neighborhoods.



***New Green Line service will start to reduce rail and road barriers that have isolated Inner Belt and Brickbottom for more than 160 years.***

For several decades, concepts have been proposed to mitigate some of these barriers with new bridges, tunnels, or grade-level road reconstruction. This plan, however, represents the first comprehensive effort to assess and prioritize these potential, and costly, infrastructure investments based on their anticipated economic and community development benefits. It builds upon the state's initiative to inaugurate Green Line service, which will provide the area an important new means of crossing the Fitchburg Line and McGrath Highway barriers. This plan also builds upon two other major efforts that lay the groundwork for longer-term access improvements.

First, it anticipates inauguration of Urban Ring corridor transit service through the study area. The Urban

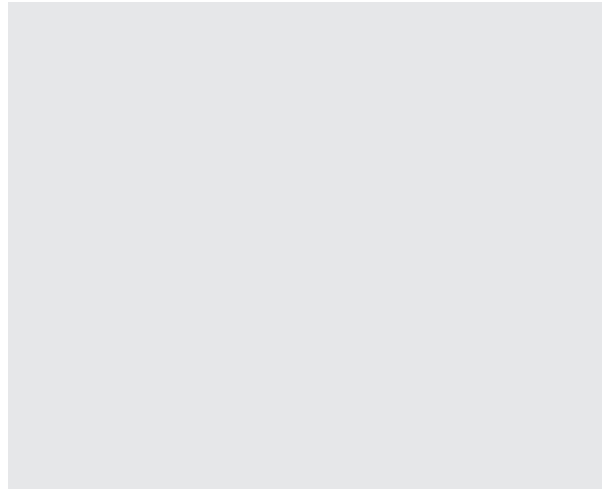
Ring, a circumferential transit corridor ringing Boston defined through several decades of study and policy development, would conceptually link Inner Belt south to Lechmere, Kendall Square, the Longwood Medical and Academic Area, and other destinations to the south and east of central Boston; and north and east to Sullivan Square, Assembly Square, Chelsea and Logan Airport. While the Urban Ring transit corridor currently lacks committed funding or implementation scheduling, strong interest in the corridor by a variety of businesses, institutions, neighborhoods and municipalities will continue to press for its implementation.

Second, this plan was conducted in parallel with a state-sponsored planning study of methods to reconstruct today's elevated McGrath Highway to enhance walking, biking, transit and driving connections in a balanced way. Alternatives included roadways built entirely or partially at grade, and new greenway space for landscape and off-street multipurpose paths. The process identified a preferred "boulevard" solution built at grade, and this alternative was used as a basis for studying potential long-term effects on traffic posed by development in the study area and in the region. Implementation of this alternative is not anticipated for at least ten years. In the meantime, the existing elevated McGrath structure has been rehabilitated to extend its useful life, and interim pedestrian, bike and roadway improvements are being made below the structure to enhance access convenience and safety for all modes.

Transportation infrastructure alternatives analysis methodology and summary recommendations

The access alternatives analysis performed as part of this master plan builds on three major assumptions. It maintains that the optimal access network serving Inner Belt, Brickbottom and its surrounding context should **emphasize a range of convenient transportation choices**; that transportation and land use policy should be managed together; and that implementation decisions must **weigh cost-effectiveness of alternatives across a comprehensive range of economic, transportation and design criteria**.

- The optimal access network should emphasize a range of transportation choices, including but expanding beyond automobile access which predominates today. Special emphasis must be placed on leveraging new Green Line service in particular, given its importance in drawing market-based investment in business and real estate development. This in turn requires emphasis on creating inviting, safe condi-



*Rendering of new Washington Street Green Line station (source: MBTA)*



*Concept plan for preferred McGrath Boulevard alternative (source: MassDOT)*



tions for walking, biking and using complementary transit services (bus and future Urban Ring corridor transit).

- The optimal access network should be actively coordinated with area land use, both in the planning process and in operations. Transportation Demand Management (TDM) strategies, well-established in other places such as Cambridge’s Kendall Square, should be used to offer the best possible range of access choices to property and business owners and their tenants, and to maximize cost-effectiveness of public investments in infrastructure. TDM strategies involve partnership with area employers and property owners, and typically involve incentives for walking, biking and transit usage (such as reduced-cost transit passes, and improved bike parking facilities) coupled with parking pricing policies that reflect market demand for parking.
- Alternatives should be evaluated based on a comprehensive range of criteria including benefit, cost, and implementation feasibility. The optimal transportation network must both make the transformative improvements needed to unlock significant new economic development and community access opportunity, and be fully achievable with respect to physical and financial constraints at hand. The analysis methodology used in this plan scored alternatives using these criteria:
  - > Level of benefit
    - Economic development (up to 3 points)—*to what extent will the project advance market-driven development opportunity?*
    - Transportation (up to 3 points)—*to what extent does the project expand needed high-quality transportation choices?*
    - Urban design (up to 3 points)—*to what extent does the project create high quality places designed for people?*
  - > Cost/benefit (up to 3 points)—*Projects were first sorted into different cost tiers, and then scored according to what overall level of benefit they would provide relative to their cost tier.*
  - > Feasibility
    - Technical (up to 3 points)—*projects with fewer engineering or design challenges earned more points.*
    - Partnerships/land access (up to 3 points)—*projects with fewer potential complications from needed land acquisition, partnerships with*

*private entities or public agencies, or similar factors earned more points.*

- > Timing (up to 3 points)—*Projects achievable sooner earned more points.*

An alternative could serve as little as 0 if it provides no net benefit or -1 if it is detrimental to a criteria standard.

Rankings scored projects within their categories as well as across the overall study area. For instance, different alternatives for improving access across the Lowell Line embankment were ranked against each other to identify which deserve highest priority in that category. Alternatives also fell into certain tiers across the study area based on their overall score, helping identify which ones deserve attention first. The highest ranking alternatives across the study area were grouped into two categories, starting with “low hanging fruit” and others that are most cost-effective and rapidly implemented (see table X). The second category includes projects that provide compelling benefit but require greater investment and/or longer timeframes to implement (see table X). These may deserve near-term action to start their implementation process but are not expected to yield near-term results.

In short, infrastructure investment priorities fall into these levels:

- Low-hanging fruit. *These actions will cost-effectively, quickly leverage new Green Line service.*
  - > Enhance existing streets with sidewalks, trees, lighting etc. as needed (up to \$500,000 each).
- First priority. *These actions will assist existing businesses and near-term development projects.*
  - > Replace Inner belt tubes (\$10-12 million)
  - > Improve Tubes bypass, if this facilitates faster, less costly Tubes replacement (\$2.5-3 million)
  - > Create new street segments on an opportunistic basis (up to \$500,000 each).
- Second priority. *These actions will unlock more substantial benefits but require more complex planning and implementation partnerships, and greater levels of funding, making them less relevant to near term development opportunities.*
  - > Poplar St. extension to Inner Belt as walk/bike greenway (\$4-6 million)
  - > North Point bridge, preferably with traffic (\$10-12 million)

- Third priority. *To a greater degree than the second priority actions, these require more time and funding to implement, and so ought to be delayed until market interest can promptly take advantage of their benefits.*
  - > Inner Belt Rd. West extension under Lowell Line (\$10-12 million)
  - > Other Green Line crossings (\$2-6 million)
  - > New Inner Belt South Green Line station if feasible

## Highest Priorities Across Alternatives



### KEY GOALS

- Foster economic development for Somerville
- Enhance walking and biking connections to the Washington Street station from all directions
- Enhance biking and Community Path connections within and beyond the study area

### SUMMARY OF PRIORITY ACTIONS

1. Improve existing streets with better sidewalks and other pedestrian infrastructure, as cost-effective, near term “low hanging fruit” initiatives to leverage Washington Street station and enhance existing properties. Create a new north-south street as part of Cobble Hill Shopping Center redevelopment.
2. Replace the “tubes” with a more attractive and functional bridge. Enhance the street grid and redevelopment opportunities by extending Roland Street west to Inner Belt Road, adding a north-south street west of the Holiday Inn, extending Third Street west to Inner Belt Road West, and enhancing the private drive below the Lowell Line into a public street with sidewalk
3. Create a new walking/biking connection across the Green Line as part of Green Line construction.

## CRITICAL QUESTION 6

## How can we fund needed infrastructure improvements using the value of new development?

The planning process analyzed opportunity for the increased value of new development to pay for the cost of infrastructure improvements needed to help attract and support that new development. Major categories of these investments include street improvements, new streets, critical bridge connections, parks and structured parking. Over the long term, increased tax revenue from new development clearly supports infrastructure costs. The greater challenge is to be able to finance critical near-term infrastructure needs before significant revenues are received from the development it enables. To a significant degree, this challenge can be met, through a combination of carefully prioritizing infrastructure investments (as described under critical question 5), and the following specific financing strategies.

### Finance plan assumptions

- Revenues
  - > Revenues to the city primarily consist of property tax receipts. Because most housing development anticipated in the study area would be multifamily rental housing, it would produce commercial tax payments like office or other business development would.
  - > A second significant source of revenue would be fees from shared parking structures. Whether parking structures are built and managed by private developers or the City or another public entity, these revenues could cover the cost of creating the parking structures. Further, land values in the study area are high enough that greater economic value would be achieved by property owners through building structured parking to reserve more land for building development, than by utilizing significant land area for surface parking. This analysis assumes prevailing parking structure construction costs, and parking fees typical of mixed-use areas where transit, and to a lesser degree walking and biking, offer reasonable alternatives to driving and parking. It also assumes that a limited amount of structured parking—not more than 500 spaces—may be offered at any given time for commuters interested
- Finance approach recommendations and assumptions
  - > in parking for the day to complete their commute using the Green Line. While such “park-and-ride” facilities are not generally desired in the study area as a long-term presence due to potential traffic impacts and displacement of higher-value uses, park-and-ride revenue would provide valuable near-term financing assistance for parking structures built with greater capacity than can immediately be utilized by new development. (In some cases it is desirable to build excess parking structure capacity to make most efficient use of land, due to the impracticality of adding floor levels to existing parking structures)
  - > The Community Preservation Act would also produce supplemental revenue to the city, at a rate of 3% of the amount of the property taxes. This analysis has assumed that Community Preservation Act-sourced revenues would be dedicated to fund ongoing costs such as park maintenance, as they are too small to make a significant contribution to capital costs.
  - > A District Improvement Financing (DIF) approach is recommended, similar to the successful approach taken by the City at Assembly Square. As near-term redevelopment begins, several DIF districts should be established within the study area. These districts would best be scaled approximately similar in size to the character subdistricts outlined in the Master Plan, gathering a mix of near- and longer-term development sites that would all benefit from certain specific infrastructure improvements (such as a new street or connection). General Obligation (GO) bonds—rather than more costly tax-increment financing methods—would be issued with to finance improvements, repaid by growing tax revenues from new development. 20-year terms and 4% leverage are assumed for the GO bonds.
  - > Because smaller, incremental near-term projects will produce too little revenue at first to efficiently support GO bonds, initial infrastructure improve-

ments should be funded on a “pay-as-you-go” basis from the City’s general fund. This approach is feasible since significant near-term improvement can come from relatively inexpensive investments

in sidewalks, street trees and other “streetscape” elements along existing streets such as New Washington, as detailed under critical question 5.

**SAMPLE SEQUENCE OF PUBLIC/PRIVATE INVESTMENTS IN INNER BELT PROPERTIES AND INFRASTRUCTURE**

*Sample private and public investments are grouped into these different categories, each representing a DIF (District Improvement Financing) district. On the diagram below, colors distinguish DIF categories, numerals in squares indicate private redevelopment, numerals in circles indicate public infrastructure improvements funded through that private development, and number sequence indicates a sample implementation sequence within each DIF district.*

**Inner Belt Gateway/Washington Street DIF district (yellow)**

1. Phase 1 redevelopment of the Cobble Hill shopping center occurs. Over 3.5 to 4.5 years, its tax revenues can fund streetscape improvements along Washington St., New Washington St. and Inner Belt Rd., a new street linking Washington and New Washington along the Cobble Hill Shopping Center, and extension of Roland Rd. to Inner Belt Rd. through direct General Fund appropriations
2. Phase 2 redevelopment of the Cobble Hill Shopping Center, plus any ONE of the sites with a dashed outline, can fund “Tubes” replacement and a new park along New Washington St. through bond financing.

**Inner Belt Gateway/New Washington Street DIF district (orange)**

1. An initial office building redevelopment adjacent to Washington Station (private and MBTA ownership), plus interim park-and-ride parking revenues, funds an adjacent public parking structure serving multiple sites and uses through bond financing
2. Redevelopment on two additional sites (private, MBTA and city ownership), plus interim park-and-ride parking revenues, funds a second public parking structure serving multiple sites and uses through bond financing

**Brickbottom DIF district (magenta)**

1. Housing redevelopment on the Cataldo Ambulance and adjacent sites funds streetscape improvements along Joy, Chestnut, Linwood and Poplar Streets through General Fund appropriations

2. Mixed-use development on additional sites north of Joy St. funds a Joy Street public space and pedestrian connection across the Green Line (supplementing MBTA Community Path funding) through bond financing
3. Mixed-use development on additional sites between Joy and Linwood Streets funds a public parking structure and street between Joy and Linwood.

**Inner Belt South DIF district part 1 (blue)**

1. Mixed use redevelopment at 200 Inner Belt Road funds a new street underpass below the Lowell Line through bond financing.



## CRITICAL QUESTION 7

## What will new Green Line service bring—and when?

The MBTA Green Line is the most heavily-travelled light-rail line in the United States, with roughly 220,000 daily riders. It provides critical mass transit service between downtown Boston and inner-ring suburbs to the west such as Brookline and Newton. Regionally-significant job centers such as the Longwood Medical Area, cultural icons including Fenway Park, and several major colleges and universities are located along the Green Line. The long-planned Green Line Extension to Somerville will bring convenient transit service to New England’s most densely-populated city, connecting residents to jobs and unlocking new opportunities for our region’s economy to grow in a sustainable, transit-oriented pattern.

Today, the Green Line light rail system terminates at Lechmere station, located in East Cambridge roughly 1/4 mile from the Somerville border. The Green Line Extension project will extend the light rail service roughly 4.5 miles northwest through Somerville along existing commuter rail rights-of-way. No at-grade street crossings will be built, since the existing rail line is generally below street level. Six new stations will be constructed, and the existing terminus at Lechmere will be moved to tie in with the commuter rail right-of-way.

The extension is being built in phases. The Washington Street station, along with two other stations closest to downtown Boston, will be completed and operational by early 2017. The MBTA signed a construction contract for this phase of the project in September 2013 worth \$393 million, and work is currently underway.

Four additional stations to the west will be completed by early 2019 (see pages 36–37). The MBTA is seeking federal funding for this phase of the project, and submitted an application to the Federal Transit Administration’s “New Starts” program in October 2013.

The Green Line Extension project requires the MBTA to invest in new trolley cars and associated maintenance and service infrastructure. A fleet of \_\_\_\_\_ new trolley cars were purchased in 2012 to help handle the projected 50,000 daily riders using the new Green Line stations. A new Vehicle Maintenance Facility will be constructed in Somerville’s Inner Belt district to handle storage and maintenance operations for the fleet. The facility will be located on Third Avenue, adjacent to the existing Boston Engine Terminal, which serves the MBTA’s fleet of commuter rail locomotives.



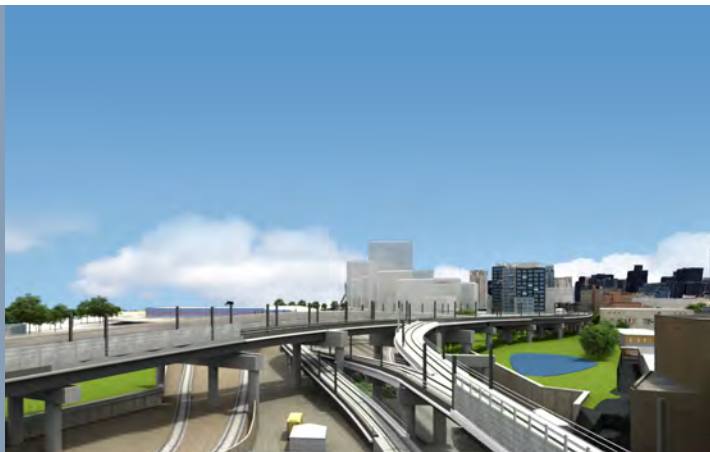
### BRICKBOTTOM STATION

The Brickbottom Green Line station will be open for service in early 2017. A construction contract worth nearly \$400 million was signed in 2013, and major site preparation will begin in 2014. The Washington Street bridge will be rebuilt, stormwater drainage infrastructure will be installed, and the station will be constructed. Riders will reach Boston's North Station in just six minutes.



### COMMUNITY PATH EXTENSION

The Somerville Community Path is a regionally-significant commuting and recreation resource which will soon connect the 14-mile Minuteman Commuter Bikeway to Somerville's west with the 15-mile Charles River path network. The section between Washington Street and Lechmere station will be particularly memorable, with expansive views from the viaduct as it climbs over the Fitchburg tracks.



*Community Path is on the other side of the MBTA bridge from us.*

### MAINTENANCE FACILITY

A large vehicle maintenance facility is necessary to operate the Green Line Extension, and it must be located near the new tracks. The MBTA is acquiring five acres of private property on Third Avenue to build the maintenance facility, which will be located adjacent to the 25-acre Boston Engine Terminal.



## CRITICAL QUESTION 8

## How will the Green Line station at Brickbottom work?



The MBTA Green Line Station will be located on the south side of Washington Street, stretching from Joy Street on the west to New Washington Street on the east. The Green Line trolleys will run in existing rail rights-of-way that currently separate Inner Belt from Brickbottom, parallel to Chestnut Street and Joy Street. The Green Line tracks will converge with the Lowell line commuter rail tracks just south of Washington Street, and both will cross Washington Street on the elevated rail bridge. The Green Line Extension does not include any at-grade roadway crossings.

Riders will enter the station from underneath the rail bridge. A long, glass-fronted arcade will be built facing Washington Street to create transparency and promote safety. Entrances to the arcade will be on the west and east sides of the station. Riders will enter into an open lobby, and fare gates will be located at the southwest (Joy Street) side of the lobby. Stairs, escalators and elevators will bring riders to the elevated station platform.

From the central platform, outbound trains will run along the Lowell commuter rail right-of-way to Gilman Square, Tufts University and eventually the Green Line's Mystic Valley / Route 16 terminus. Inbound trains will run along the old Guilford freight rail sidings between

Inner Belt and Brickbottom, and up onto a viaduct across the Fitchburg commuter rail tracks to the new Lechmere station, Museum of Science and Boston's North Station.

Like all the new Green Line stations, the Washington Street station is intended to function as a walk-up station that serves the neighborhood around it. No commuter parking lots or garages will be built by the MBTA, although an accessible drop-off site will be created just east of the station to serve users of the "The Ride" paratransit program.

To ensure safe and convenient access for riders from the neighborhoods north of Washington Street, the MBTA will be making improvements to the intersection of Tufts Street, Knowlton Street and Washington Street which include a new traffic signal and new crosswalks.

To encourage bicycle use, the MBTA will be installing protected cycletracks on the north and south sides of Washington Street between Joy Street and Tufts Street, and will build an indoor bike cage to provide safe, weatherproof locking options for cyclists. The Washington Street Green Line station will provide direct access onto the Somerville Community Path.

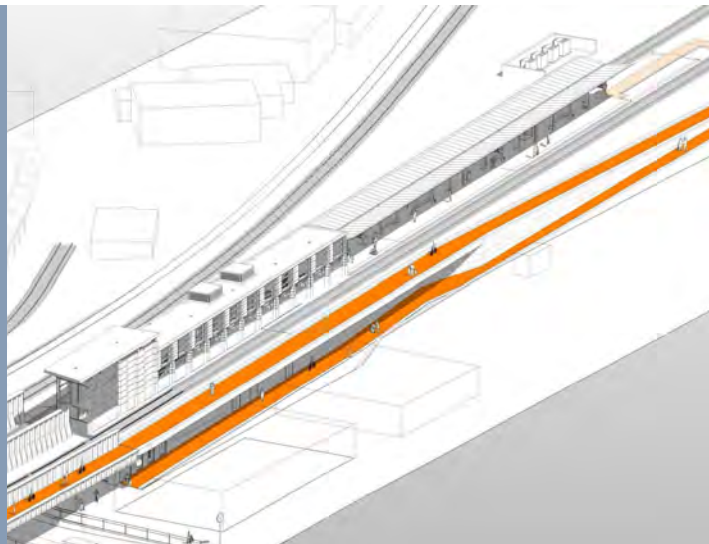
## BRICKBOTTOM STATION

The entrance to the Green Line station will be located underneath the rebuilt Washington Street bridge. The elevated platform is located at bridge level. Accessible drop-off facilities and bicycle storage are located to the east. Pedestrian and bicycle improvements will be made along Washington Street between Joy Street and New Washington Street.



## COMMUNITY PATH

The Community Path is an important way to get Green Line riders to and from the stations. At Washington Street, the path will run alongside the Green Line tracks on the rebuilt bridge structure. The main line of the path will continue south toward Lechmere, and a switchback will connect the station platform's emergency egress back to street level at Washington Street.



## ACCESS IMPROVEMENTS

Thousands of Green Line riders will be walking to the Brickbottom station from East Somerville, and Washington Street creates a major barrier. The MBTA is redesigning the intersection of Washington Street, Tufts Street and Knowlton Street to ensure safety and accessibility, and will install a new traffic signal along with new crosswalks to ensure safety and accessibility.





## CRITICAL QUESTION 9

## When will McGrath Highway be rebuilt as an at-grade roadway connecting neighborhoods?



For generations, heavy transportation infrastructure has isolated the Inner Belt and Brickbottom districts. Today, coordinated planning is beginning to turn historic barriers into assets for access and placemaking. The Massachusetts Department of Transportation's Grounding McGrath initiative is one such example with major implications for the future of Inner Belt and Brickbottom.

State Route 28, known as McGrath Highway in Somerville and O'Brien Highway in Cambridge, is a classic example of a freeway being cut through pre-existing urban neighborhoods, serving suburban automobile commuters at the expense of urban residents and business operators. Throughout its 1.5 mile length in Somerville, the oversized McGrath Highway divides neighborhoods, denying many residents the ability to safely walk to a neighborhood school or grocery store. The elevated section between Washington Street and the Cambridge city line is known as the McCarthy Viaduct was constructed in the mid 1950's, creating a towering wall that separates Brickbottom from the historic and walkable Union Square neighborhood to the west.

Community members have been advocating to remove the elevated portion of McGrath for many years. Under Governor Deval Patrick's administration, the Massachu-

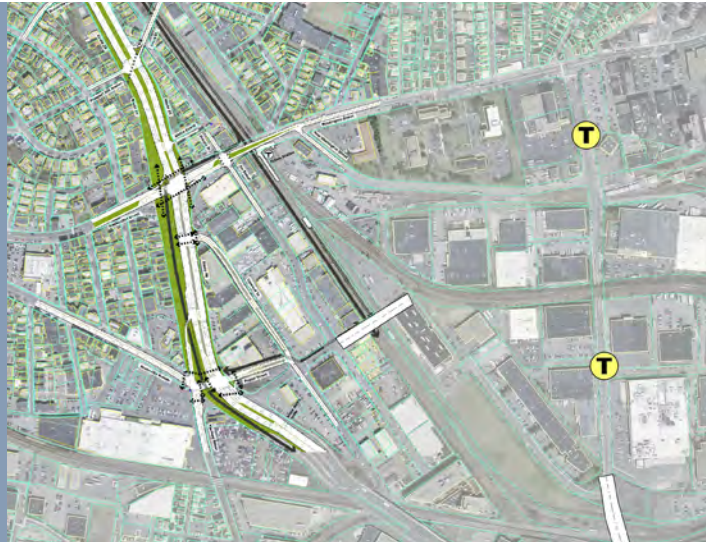
setts Department of Transportation has engaged in a series of landmark collaborations to evaluate whether and how to move forward and implement the community's vision. In 2011, the "Grounding McGrath" study was launched, blending traditional traffic engineering with a 21st century sensibility that focuses on urban design and livability in the highway corridor.

A two-year public process was led by MassDOT, working through existing conditions analysis, development of alternatives for study, alternatives analysis and ultimately recommendations. Economic development, environmental sustainability and public health figured prominently in the study process. Consistent participation by local residents, community-based organizations, municipal governments and state agencies allowed for a meaningful dialogue about various strategies being considered.

In May 2013, the study team shared its recommendations with the public, calling for removal of the elevated McCarthy Viaduct and replacement with an at-grade roadway that better serves all users. In December 2013, a draft study report was published for public review and comment. The Grounding McGrath initiative will now move into its formal environmental review stage.

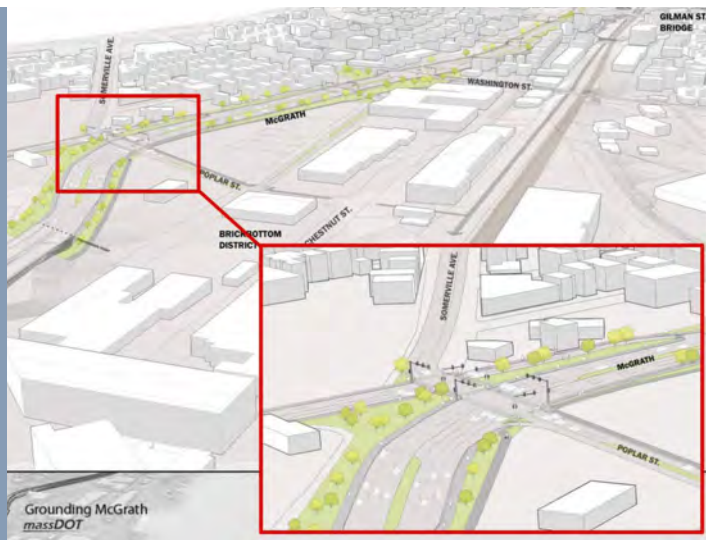
## COORDINATED STUDY

The MassDOT Grounding McGrath effort was closely coordinated with the City of Somerville's Inner Belt / Brickbottom Master Planning process. Between 2011 and 2013, state and municipal staff worked together to manage the projects, and consultant teams shared data and analytical methods. Both studies relied heavily on stakeholder focus groups, which included many of the same residents, businesspersons and advocacy organizations.



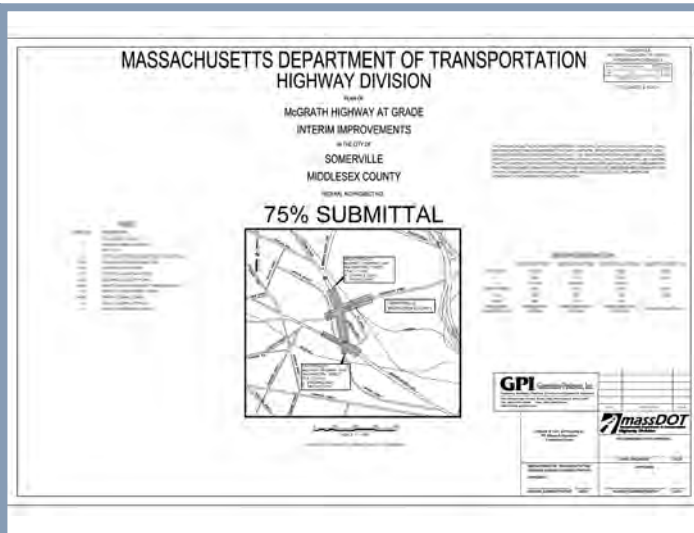
## INTERSECTION DESIGN

Designing a new intersection at Somerville Avenue, Medford Street and Poplar Street is extremely complicated, in part because the City of Cambridge values Medford Street in Somerville as a cut-through for suburban drivers headed to Kendall Square. The 2013 Grounding McGrath study examined basic options for new intersection geometry, but detailed designs will not be explored until the project's environmental phase begins (2014).



## INTERIM IMPROVEMENTS

Since construction of a new at-grade roadway would likely take place between 2021 and 2023, MassDOT has committed to a series of interim improvement measures, including upgrades to pedestrian crossings at several locations, on-street bicycle facilities, and closure of redundant ramps and tunnels along the viaduct.



CRITICAL QUESTION 10

# Will congested roads threaten our smart growth goals?

For generations, Somerville has been viewed as a cut-through for regional traffic, the kind of place that people want to go through, not to. A relatively small local jobs base and insufficient public transit meant that the vast majority of the city’s 45,000 workers were forced to drive to their place of employment, since local jobs were few and public transit options insufficient. Today, Somerville is re-establishing a more balanced approach to meet its transportation needs.




This master plan is rooted in the philosophy of choice. The Inner Belt and Brickbottom districts are ideally located to offer unique access to the MBTA’s Orange Line and Green Line, Interstate 93, the future Community Path, and walkable neighborhoods like East Somerville and Union Square. To achieve smart growth targets called for in regional and local plans, roughly 50% of new trips should be handled by transit, bicycling and walking, and 50% are expected to be made by automobile. The City must preserve roadway capacity for essential vehicular trips, like commercial trucks serving local businesses.

To test whether these goals are viable, the study team evaluated existing conditions, historical trends, and future projections under several growth scenarios.

A progressive partnership with the Massachusetts Department of Transportation and the region’s Central Transportation Planning Staff allowed the Inner Belt / Brickbottom team to run development simulations using the officially-endorsed regional model, which accounts for changes like the new Green Line service and major new smart growth project like Assembly Square and North Point.

The results of these modeling efforts indicated that if new development is oriented around pedestrians and public transit, the region’s roadways can handle that growth. Techniques known as “Transportation Demand Management” must be used to discourage unnecessary driving. These techniques include parking management, shuttle services, and employer investments in transit passes and bicycle facilities.

In addition, street reconstruction and new street projects must use a “Complete Streets” approach that emphasizes designs accommodating all forms of travel. Recent studies have shown that local economies perform better near complete streets projects than near 1960’s style roadway projects. The City of Somerville will publish a Complete Streets design manual in 2014.

	BASELINE 2010	SCENARIO 1 <i>Approx. 6 million sf of development, 70% trips by auto</i>	SCENARIO 2 <i>Approx. 6 million sf of development, 50% trips by auto</i>	
2035 PROJECTIONS	 <b>Daily Vehicle Miles Traveled</b>	<b>85,000 miles</b>	<b>131,000 miles</b>	<b>41,000 miles</b>
	 <b>Daily Trips</b>	<b>12,000 trips</b>	<b>36,000 trips</b>	<b>24,000 trips</b>
	 <b>% of Non-Auto Trips</b>	<b>5%</b>	<b>30%</b>	<b>50%</b>

## WASHINGTON STREET

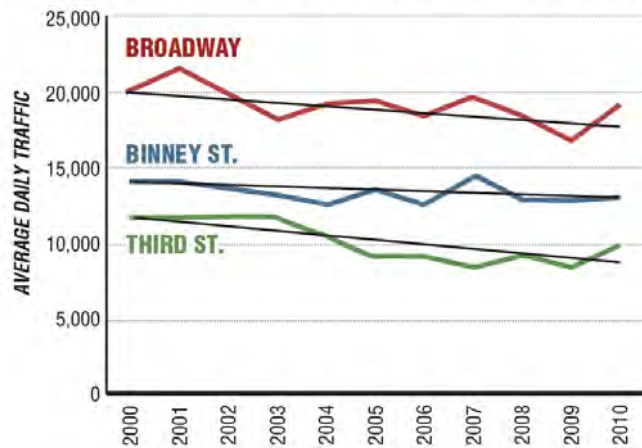
For Inner Belt and Brickbottom to grow, traffic congestion in Somerville's Union Square must be alleviated. During peak commuting hours, the intersection of Washington Street and McGrath Highway experiences backups stretching eastward from Union Square, more than 1/4 mile away. The City of Somerville recently began a major intersection redesign project for Union Square that will improve traffic flow all the way to New Washington Street.



## DEMAND MANAGEMENT

Traffic patterns can be viewed as a supply and demand relationship. Wider roads do not solve traffic problems, since they increase both supply and demand. The Kendall Square success story is about demand management. By limiting parking, improving mass transit, and focusing on biking and walking, the City of Cambridge has helped bring 20,000 new jobs to Kendall since 1999. Automobile traffic has dropped 14% during that period.

Kendall Square Average Daily Traffic with Trend Lines



## INTERSTATE 93

North of Boston, Interstate 93 carries roughly 250,000 cars every weekday. Efforts are underway to squeeze additional capacity from the existing roadway, including reclaiming unused lane space at the High-Occupancy Vehicle lanes near Sullivan Square. New development in the I-93 corridor must adhere to smart growth principles, with siting, uses and designs that allow 50% of new trip demand to be met by public transit, bicycling and walking.



## CRITICAL QUESTION 11

## Will stormwater drainage threaten growth in Inner Belt & Brickbottom?



For generations, heavy transportation infrastructure has isolated the Inner Belt and Brickbottom districts. The low-lying Inner Belt district has historically struggled with drainage issues. Much of the area is former marshland filled in during the nineteenth century. Roughly 85% of all sewer and stormwater drainage in Somerville makes its way to the study area. Storm and sewer flow from much of central and western Somerville is piped through the MWRA's lines connecting Poplar Street in Brickbottom northeast to Sullivan Square.

Drainage from East Somerville and much of the Inner Belt, however, does not successfully escape the study area. Large pipes run east along New Washington Street and north along Inner Belt Road, then join together to run east along Third Avenue toward Interstate 93 and ultimately the MBTA's engine terminal facility. A major blockage in an historic stone culvert on MBTA property prevents drainage, and backups and flooding have been common in recent decades.

The City and its partners are working towards progressive solutions for drainage and flooding issues in the district, to ensure public safety today and unlock development opportunities during the coming decades.

The MBTA will design and build a major pump station adjacent to the Washington Street Green Line station, a buried detention cistern running along the Green Line tracks south of the station, and a detention pond at the site of the former Red Bridge.

The City of Somerville has adopted a stormwater ordinance that will support on-site stormwater retention in upstream neighborhoods, and is expanding education programs for water and sewer ratepayers to encourage conservation. The MBTA and the City are partnering to prepare hydrologic models of the Inner Belt and Brickbottom districts, to quantify the performance and cost benefit of various improvement plans.

This plan recommends that rather than attempt to retrofit the MBTA's old stone culvert drainage, the City partner with the MBTA and MWRA to bypass it, ensuring that system capacity equivalent to a functioning old stone culvert is made available at an alternate location. Pipes below Inner Belt Road should be reversed to flow south instead of north, and should be connected to large pipes along the MBTA's Fitchburg rail line that run east behind the engine terminal.

## HISTORIC MILLER'S RIVER

Much of Inner Belt is filled marshland along the banks of the historic Miller's River, and Boston Harbor is only a mile away. Projected sea level rise provides a strong incentive for sustainable development strategies in the district. New drainage capacity is needed to increase resilience from flooding events. Adaptation strategies including on-site stormwater retention and siting of electrical systems in new buildings above basement level will also be key.



## OLD STONE CULVERT

Constructed around 1940, the five-foot square "Old Stone Culvert" is located on MBTA property on Third Avenue, and was designed to serve a 250-acre drainage area. A major upgrade project was planned in the early 1990's, but never built, and the culvert has since become unusable due to sediment blockage. Cleaning, upgrades, or re-routing of all related pipes will be necessary to achieve this plan's goal of 12,000 new jobs and 2,000 new housing units.



## 2010 FLOOD EVENT

A flash flood event in July 2010 caused widespread damage in Somerville and Cambridge. Insufficient capacity at the New Washington Street pump station contributed to flooding underneath the Washington Street bridge. As a result, the Green Line station is being designed with a much more robust stormwater system, including major upgrades to the pump station and significant detention facilities along the tracks to the south.



## CRITICAL QUESTION 12

## What constraints do “The Tubes” impose?

The earthen berm that carries the Lowell commuter line rail tracks is a tremendous impediment to north-south mobility in the Inner Belt district. The temporary Tubes that bring Inner Belt Road underneath the tracks are a public safety hazard, and a clear deterrent to new investment. Replacement of the Tubes with a real bridge structure is one of the top priorities of this plan.

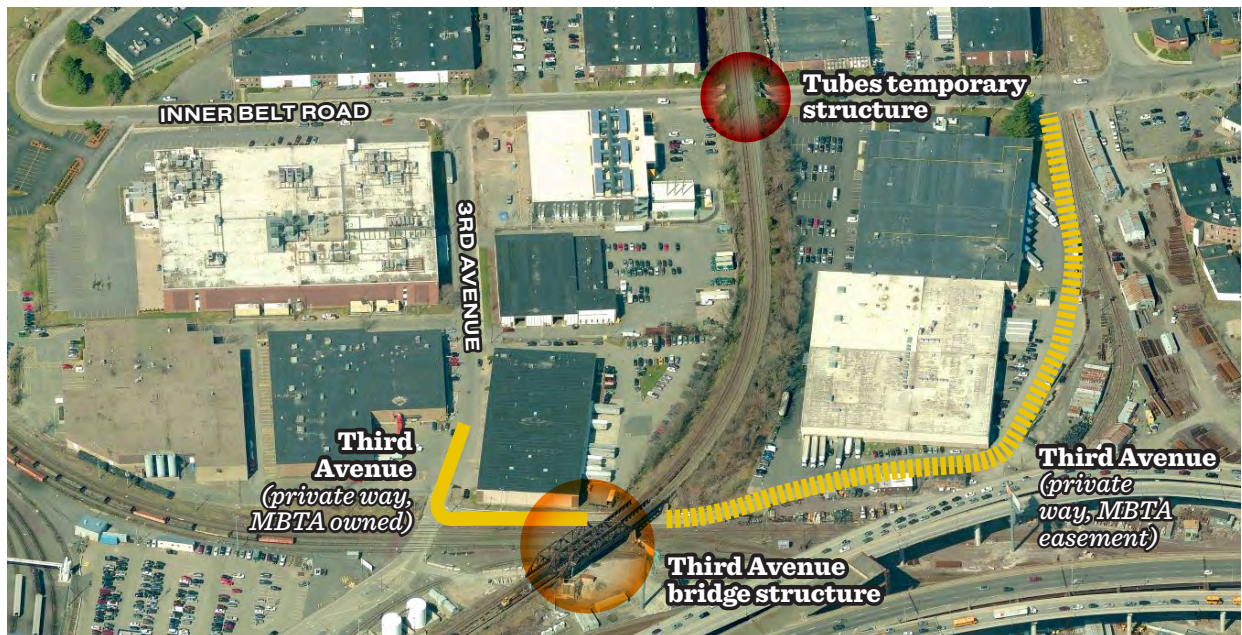
Installed in 1985, the Tubes were intended to be a temporary substitute for a bridge. They offer poor sight lines, dangerous and inaccessible sidewalks, and potholed roadway surfaces. Business and property owners have been watching the corrugated metal become more and more compressed by the weight of the berm, tracks, and trains, since there are no bridge abutments to carry the load above. The Tubes are the only public roadway connecting properties south of the Lowell line to the regional street grid.

Over time, the Tubes have been slowly collapsing under the weight of an unsupported load. In 1999, local business owners arranged to host a tour of the Tubes for state, regional and local officials. as the delegation

stood watching, an 18-wheel tractor trailer passing through the Tubes became stuck. The truck driver was forced to let air out of the truck’s tires to gain a few inches of clearance and extract the vehicle from the Tubes.

Replacement of the Tubes will require a coordinated plan of action, and significant financial resources. The *2005 Inner Belt Access Alternatives Study* by Vollmer Associates, and a circa 1988 study referenced therein by Universal Engineering Corporation, outlined a construction methodology and provided rough cost estimates. A primary driver of cost is the need to maintain Amtrak and commuter rail service during construction. To close the Tubes during construction, an alternate route must be established to serve properties south of the Lowell line. Third Avenue, a private road that crosses under the Lowell line to the east, should be used as a primary access route during replacement of the Tubes.

The Tubes also prevent establishment of radial Bus Rapid Transit service, which is a goal of this Plan.



## SO CLOSE, AND YET SO FAR

The Prudential Center seems close enough to touch, yet the “temporary” Tubes on Inner Belt Road are the only public way in or out of the district’s southern properties. Remarkably, there are no abutments to support the load above, meaning that the Tubes are not even classified as a bridge structure. This makes qualifying for public financing more difficult, despite the Commonwealth’s focus on improving bridge safety.



## THIRD AVENUE DETOUR

Just north of the Tubes, the private Third Avenue turns east toward Interstate 93. Dozens of trucks use this route every day to access the Royal White Laundry facility, and employees of the MBTA’s Boston Engine Terminal also use it. The City of Somerville should work with private landowners to secure safe and legal access for all vehicular traffic headed south of the Lowell line.



## THIRD AVENUE EXTENSION

Third Avenue crosses under the Lowell line using a narrow bridge. Just to the south of this bridge is the location of the MBTA’s future Green Line Vehicle Maintenance Facility, which is scheduled to be completed between 2018 and 2019. As the MBTA moves forward with construction, a partnership with the City of Somerville and abutting landowners should be explored to undertake any necessary traffic detours and drainage improvements in this area, and ultimately replace the Tubes.





## CRITICAL QUESTION 13

## How can zoning reform work for Inner Belt and Brickbottom?



For generations, heavy transportation infrastructure has isolated the Inner Belt and Brickbottom districts. Zoning is a means to an end. It is a tool that municipal governments can use to guide private investment in ways that are consistent with a shared vision for the future. The SomerVision Comprehensive Plan identifies zoning reform as a key step to achieving its smart growth goals. In 2013, the City of Somerville began a complete overhaul of its outdated zoning ordinance.

In Brickbottom, the vision is for small, fine-grained blocks with buildings built to the street edge. Adaptation of existing buildings will be encouraged to help retain the post-industrial feel of the district and to maintain a diversity of price points. Performing arts and fabrication spaces will be prioritized. New residential buildings in Brickbottom will be limited to between 30% and 40% of new square footage in the district.

In Inner Belt, the vision is generally for larger buildings, with the exception of along Washington Street where scale should be moderated. Commercial buildings such as office, lab and research & development will be prior-

itized to maximize on-site job counts. Commercial development should account for between 60% and 70% of new square footage in the district. Some residential buildings will be allowed to ensure a mix of daytime and evening activity.

In 2013, the City adopted a small zoning reform package for the North Point development district that offers important lessons for Inner Belt and Brickbottom. To make commercial development more attractive than residential development, the North Point zoning allows certain types of commercial buildings as-of-right, instead of by special permit, offering greater predictability for both the private developer and the City.

Zoning will also play a key role in managing transportation demand. A “less is more” approach to parking requirements will promote transit use, minimize up-front costs for developers, and improve housing affordability. Garage parking should be required, but shared garages should be encouraged so that not every new building has to park itself.

## BUILDING TYPES

This plan calls for 60%-70% of new development to be commercial (office, laboratory, fabrication). The most predictable way to achieve that mix is by organizing new zoning around building types. Since the residential real estate market is virtually infinite, but commercial development is more difficult, commercial buildings should generally be allowed by-right. In some locations, residential buildings should not be permitted at all.



## SITE ASSEMBLAGE

One of Inner Belt's competitive advantages is that it is one of very few districts in greater Boston that can support large-floorplate office and research buildings. New zoning should encourage neighboring property owners to work together to assemble large development sites. Clear design standards should be established to ensure active, pedestrian-friendly blocks and usable civic spaces even in large-scale projects.



## LAND DEDICATION

New development is expected to provide public benefits, and zoning reform can be used to ensure this process is transparent, fair and predictable. New streets, alleys and civic spaces are needed to achieve the vision for a vibrant Inner Belt and Brickbottom. A minimum land area dedication should be established for new development, and a clear entitlement path should be made available for developers who dedicate essential new streets to the City of Somerville.



# 3 | MASTER PLAN



**T**he Master Plan takes the community-based plan principles described in Chapter 1, plus the answers to critical questions covered in Chapter 2, and translates them into a tangible, achievable vision for Inner Belt and Brickbottom. The Master Plan includes the following components, including an initial Framework covering the entire study area, and guidelines for individual districts and subdistricts that manifest the framework in more specific place-based ways.

## FRAMEWORK

- **District identity framework**, drawing upon assets of the study area, and adding new elements, to shape the distinct sense of place needed to draw market-driven development and community activity
- **Street and thoroughfare framework**, adding to existing streets both the internal and external connections needed to expand safe, convenient choices for all modes, with emphasis on walking, transit and biking.
- **Public places framework**, a network of parks, plazas and greenways that add value to existing and new development in the study area, and build community by drawing together workers, residents and visitors from throughout the study area, city and region
- **Development framework**, a predictable guide for new building development that offers flexible options for capturing market-driven business and real estate growth potential, while manifesting the vision principles in high-value streets and public spaces.

**SUBDISTRICT GUIDELINES**, defining great new places through application of the components above

- **Inner Belt**
  - > *Inner Belt Gateway: Washington*
  - > *Inner Belt Gateway New Washington*
  - > *Inner Belt South*
  - > *Roland/Inner Belt East*
- **Brickbottom**
  - > *Brickbottom: Joy/Chestnut/Linwood*
  - > *Brickbottom: McGrath Edge*

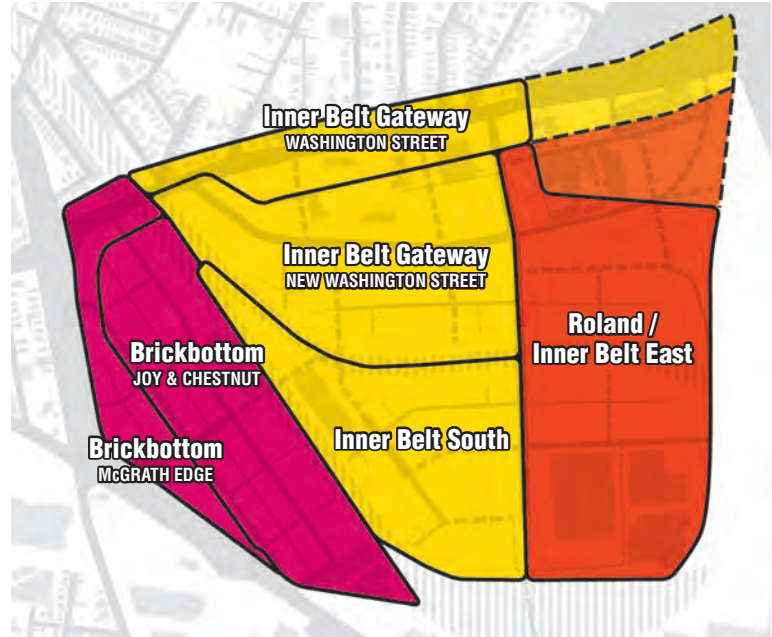
## MASTER PLAN FRAMEWORK

# DISTRICT IDENTITY

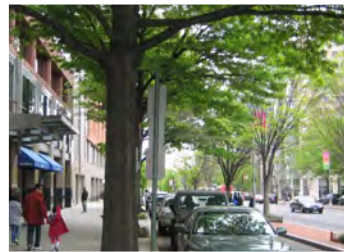
The study area includes two major districts—Inner Belt and Brickbottom—of distinct character. These districts further include subdistricts—four in Inner Belt, two in brickbottom—each with their own distinct character affecting physical scale and feel as well as market position. The districts and subdistricts are described beginning on page 64, with specific attention to these characteristics of streets, building form, land use and overall sense of place:

- Defining qualities, with attention to land use mix, scale and other factors
- Streets
  - > Character
  - > Sidewalk width and general characteristics
  - > Plantings, materials and streetscape
  - > Parking
- Street/building relationships
  - > Ground level use mix
  - > Ground level transparency
  - > Loading and servicing
  - > Building relationship to parks
- Building form
  - > Overall height
  - > Setbacks
  - > View corridors
  - > Specific themes and architectural character

## SUBDISTRICTS



*Four distinct subdistricts within Inner belt and two within Brickbottom should emerge, each with its own memorable sense of place and position in the real estate market.*



## STREETSCAPE DESIGN APPROACH

Distinct approaches to design should be applied to the overall Inner Belt and Brickbottom areas to reinforce the unique identity of each.

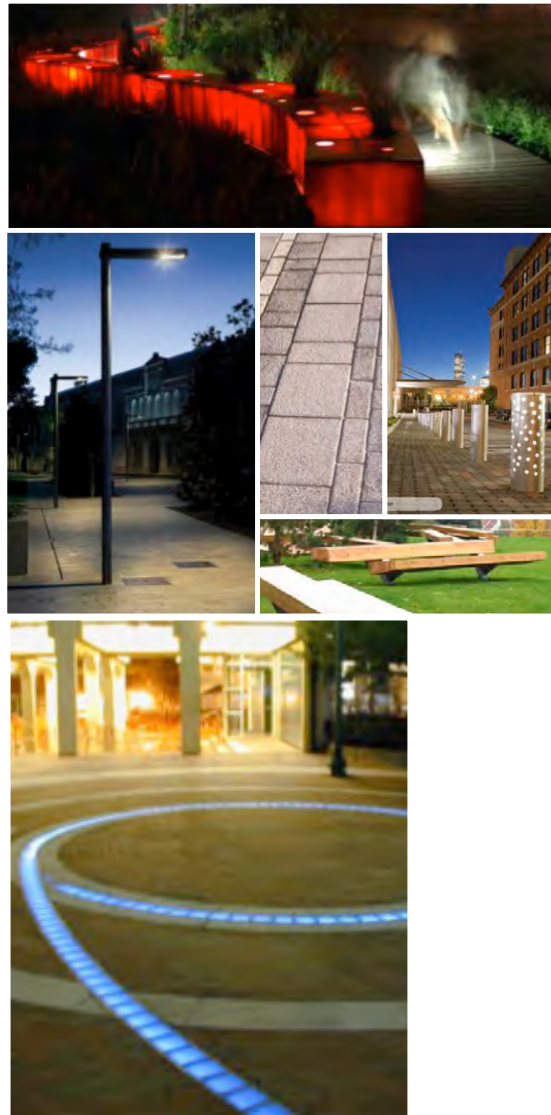
### INNER BELT

- Larger scale
- Stone, metal, concrete, refined
- Distinctive, contemporary
- Dedicated activity spaces



### BRICKBOTTOM

- Smaller scale
- Brick, metal, concrete, rugged
- Dynamic, creative
- Overlapping activity spaces



MASTER PLAN FRAMEWORK

# STREETS AND THOROUGHFARES

## STREETS IN THE STUDY AREA

The streets the study area has and needs must serve multiple roles, all of them compatible with each other. Many service and parking access functions, needed by most all parcels, tend to detract from the pedestrian-friendly, transit-oriented address qualities that are important to attracting market-driven development interest and providing safe and inviting means of access other than driving. Therefore, the master plan outlines a street network for Inner Belt and Brickbottom that utilizes a range of street types, some tailored more to walkability and others more to service functions, arrayed so that each parcel can have the range of access it needs.

While some overlapping of pedestrian-oriented and service-oriented functions is inevitable—due to existing conditions and the incremental process through which the street network will grow—the more they can be separated, the greater the area’s value will be. Where physical overlap is inevitable, the timing of different uses can help reduce conflicts. For instance, alleys—termed “back streets” in this network—can be managed so that service access mainly occurs in the early morning or other times when few pedestrians are likely to be present. At other times of the day when traffic is light, pedestrians can feel sufficiently safe and welcome to make the back street an appropriate place for some front door addresses. Back streets can be designed to

reinforce this quality, so that vehicles using them proceed cautiously and anticipate the presence of people walking. This approach is particularly relevant to Brickbottom, where uses requiring significant service vehicle access and others requiring more pedestrian access coexist and there are few options for adding new streets. Locations in Inner Belt where similar conditions exist may also merit such an approach. However, the capacity and management limitations of the approach mean that it should be complemented by other streets that have greater distinction between pedestrian and service functions.

To achieve this goal the street network should incorporate the following hierarchy of types. Each street’s type should be reflected in its design and function, as well as the design and function of the buildings, open spaces and parking lining it. Off-street walking and biking paths—which sometimes run along a street and sometimes run independent of a street—provide important supplementary connections, and should be considered as part of the street network as well. These paths are diagrammed in the Public Places section of this document.

The street network responds to the street infrastructure prioritization described in Chapter 2.

### STREET NETWORK AND TYPES



### WALKING RADII





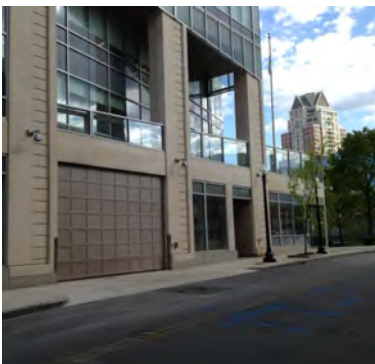
**FRONT STREET**—*priority location for retail, other active ground floor uses, and a safe and inviting walking environment*

- Ground floor commercial requirement
- Ground floor residential prohibited (except lobby)
- Min. Ground floor height requirement
- Loading, service, parking entrances prohibited
- Structured parking must be lined



**SIDE STREET**—*desirable location for retail and other active ground floor uses, with some flexibility to include service functions*

- No ground floor use regulations (intended for residential and office entrances)
- Ground floor residential shall have individual entrances
- Upper floor residential accessed by common lobby
- Width restrictions on service entrances/loading docks/ parking entrances (limited to one bay and 20% of block face)
- Structured parking must be lined



**BACK STREET**—*desirable location for occupied commercial and/or residential buildings featuring a regular occurrence of windows and doors, with some flexibility to include service functions*

- No ground floor use restrictions
- Ground floor residential shall have individual entrances
- Upper floor residential accessed by common lobby
- Width restrictions on service entrances/loading docks/ parking entrances)
- Structured parking acceptable with occupied ground floor, architectural facade



**ALLEY/SERVICE ACCESS**—*preferred location for service functions, to reduce their presence on front, side and back streets*

- No specific ground floor use requirements
- Minimal transparency (>10-20%)
- No sidewalk or streetscape required
- No plantings required
- Unlimited service docks/entrances
- Structured parking acceptable



## Street sections

Street section diagrams illustrate application of the street type characteristics to principal streets in Inner Belt and Brickbottom. The sections demonstrate how design and allocation of space use within the street area, and in adjacent buildings, should work together to achieve the desired qualities for the street. See Street Types diagram on page 54 for section locations.

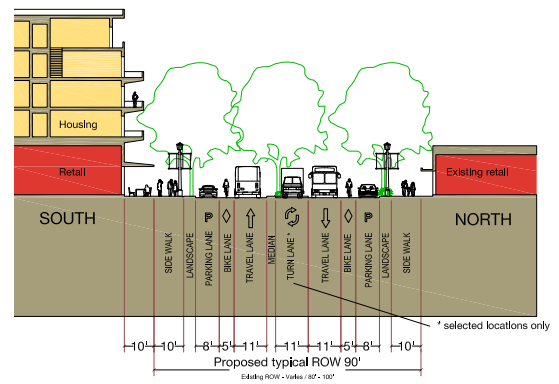
### A | WASHINGTON STREET LOOKING WEST

**Character/Functional Goals:**

- Create an attractive and an active mixed-use gateway to Somerville
- Create walkable connections across Washington St. between residential/retail uses to the north and transit and amenities to the south.
- Leverage infill opportunities to create a distinctive “Main Street” linking Washington St. and adjacent mixed-use development with Sullivan Square in the west and Union Square in the west.

**Key Design Strategies:**

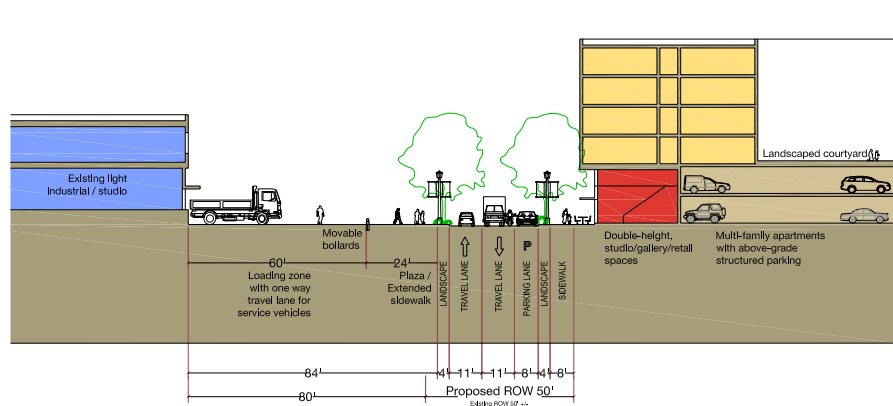
- Strengthen E-W pedestrian connection with active ground level uses.
- Provide spaces for outdoor dining along the infill buildings in the southern edge.
- Accommodate paratransit can parking and a taxi/drop-off stand near MBTA station on Washington St. and/or on New Washington St. per MBTA standards.
- Encourage distinctive architectural character with high degree of transparency.



### B | JOY STREET @ POPLAR

**Character/Functional Goals:**

- Reinforce and build upon the mixed-use, industrial character of the streets.
- Establish an Arts theme in streetscape improvements and in new public spaces.
- Provide new pedestrian-friendly amenities; minimize potential conflict between additional pedestrian traffic and existing loading/service functions.
- Accommodate periodic public events like art fairs, concerts, farmers market, etc., along/adjacent to street.



**Key Design Strategies:**

- Retain existing from loaded service condition. Encourage transparent garage door to minimize the extent of blank walls.
- Encourage flexible spaces that facilitate easy conversion of under-used service docks and indoor parking spaces into galleries retail or other uses.
- Employ street design elements like bollards, trees, and planter boxes to eliminate conflict between the service vehicles and pedestrian traffic.
- Reduce paved surfaces and increase ground water retention with permeable pavers and landscape strips.
- Manage parking/loading areas and/or provide public park space to accommodate public events.
- Install distinctive street lights that can also provide lighting for nighttime events.
- Incorporate locally-produced art into building exteriors, streetscape and public open spaces.

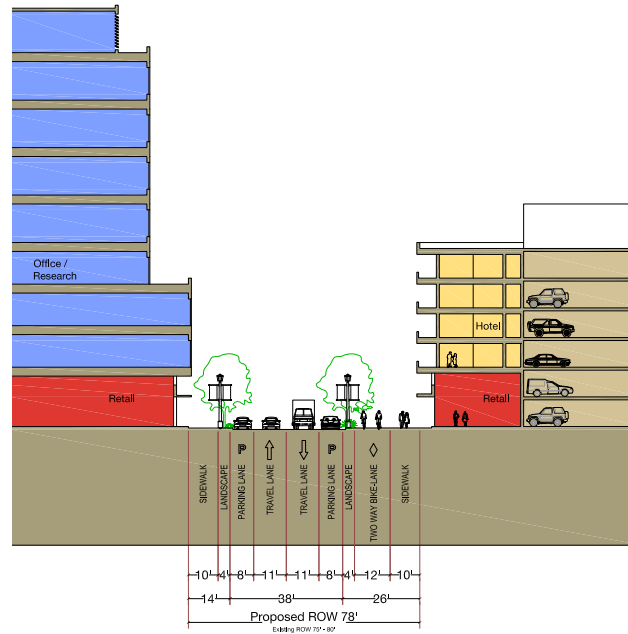
**C | INNER BELT ROAD @ NEW WASHINGTON (LOOKING SOUTH)**

**Character/Functional Goals:**

- Create a prominent business address and gateway to the Inner Belt area and Somerville, emphasizing opportunity for new research-related development expanding on existing research uses in the area.
- Encourage high-value development and active ground-floor uses on vacant and infill sites.

**Key Design Strategies:**

- Accommodate research/office buildings distinctly visible from Washington Station.
- Limit curb cuts and entrances to parking garage and service docks to side street.
- Use permeable pavers, rain gardens and other street-edge landscaping to help manage storm water.
- Include greenway/bike path as signature public realm and connectivity feature.



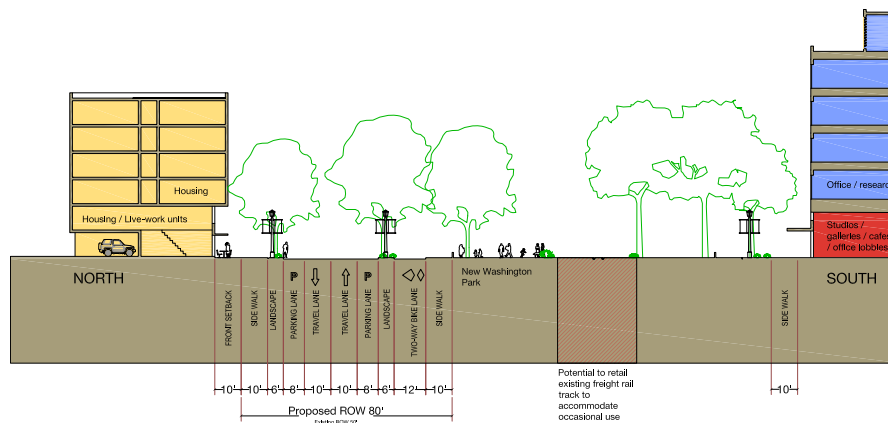
**D | NEW WASHINGTON STREET**

**Character/Functional Goals:**

- A vibrant mix of infill residential and new office uses organized by proposed park—an upgraded expansion of existing dog park that will cater to new residents, visitors and office employees.

**Key Design Strategies:**

- Distinct residential/live-work edge with front gardens along the infill residential development north of the park.
- Office buildings with active ground-level uses and outdoor dining along the southern edge of the park.
- On-street parking on both sides of the streets and tighter travel lanes as a traffic calming measure.



MASTER PLAN FRAMEWORK

# PUBLIC PLACES NETWORK

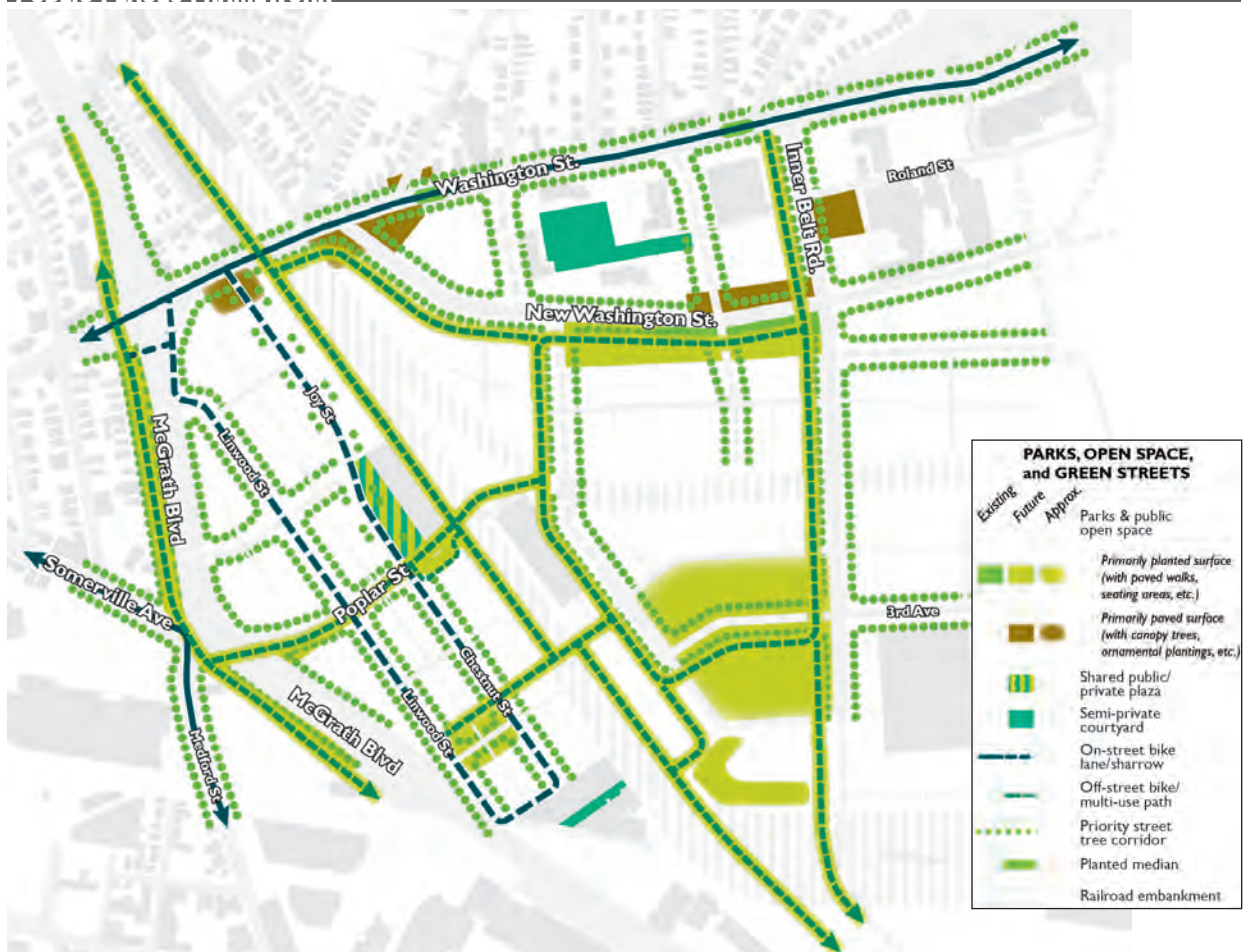
*A highly visible and useful system of public spaces that touches every block, helps establish sense of place, and can be achieved through a series of practical near- and longer-term improvements.*

Public parks and landscaped streets create community value as amenities attracting people to work, live and play. This community value builds economic value by attracting investment in workplaces, housing and neighborhood retail and dining, that naturally benefit from being near centers of community activity. Inner Belt and Brickbottom will particularly benefit from added parks and landscaped streets as very little of these are currently present (apart from the successful dog park on New Washington Street). SomerVision has further identified the study area as a priority location for new

park space serving the whole Somerville community, given the relative lack of other open space opportunities in the city.

The public places framework outlines a network of public places that are varied in their form and program. This is partly to provide the wide variety of activities a diverse community seeks at different times of the day, week and year, from the more personal to the more public—from quiet seating to active recreation, and personal enjoyment of public art to large festivals. The variation in form is also a practical means to create as much high quality public space as possible in an area that contains little city-owned land today and also needs to serve the economic development objectives outlined in this plan.

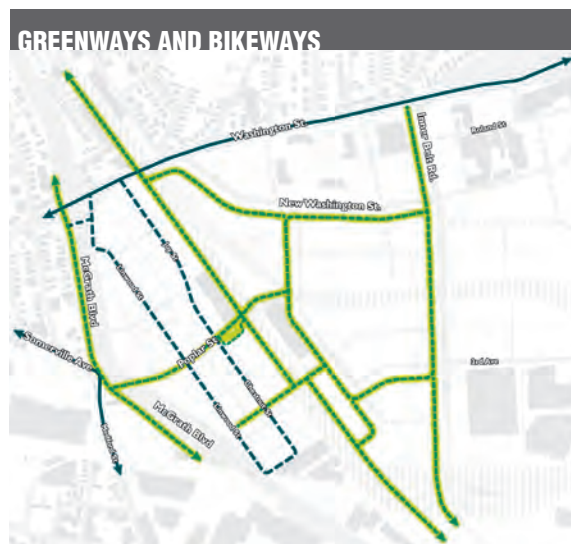
## PUBLIC PLACES FRAMEWORK



## Types of park and green corridor program opportunities

The public places network offers flexibility for a wide range of programming that can be confirmed over time

- **Parks.** Principal types and sample program:
  - > Destination parks, accommodating uses such as festivals; art and farmers’ markets; compact sports and recreation events; dog exercise
  - > Local parks and plazas, accommodating uses such as outdoor seating for adjacent dining or retail; compact art installations and music performance; passive seating; ornamental plantings
  - > Semi-public spaces, accommodating uses such as seating and outdoor dining adjacent to building entrances
- **Greenways and bikeways.** Principal opportunities:
  - > Community Path, connecting on to other Somerville neighborhoods as well as North Point and the Charles River, and helping connect Brickbottom with Inner Belt
  - > Greenway links, augmenting the Community Path with landscaped walking and biking connections throughout Inner Belt and Brickbottom and connecting with transit and adjacent neighborhoods
  - > Public art and interpretive signage, expressing a creative identity for Inner Belt and Brickbottom, and telling stories of people and places from history and today
  - > Cycle tracks and bike lanes, integrating a high-quality, safe biking network with streets and destinations.
- **Landscaped streets.** Principal opportunities include:
  - > Tree canopy, gained from additional street trees
  - > Rain gardens, addressing stormwater impacts in environmentally health ways while also providing attractive landscape amenity
  - > Medians, adding gateway signage and plantings as well as enhanced pedestrian safety at selected Washington Street locations
  - > Green walls, transforming existing blank building walls or infrastructure into elements that contribute to a walkable, high-value environment



## Creating park space

The framework reflects four potential methods of securing land for parks and green corridors:

- **Utilizing existing city-owned land.** The existing dog park on New Washington Street occupies a city-owned parcel (a remnant of the Inner Belt Expressway right of way) that stretches further along New Washington and offers additional parkland opportunity in the heart of an area with strong potential for redevelopment. The dog park, while highly successful, could potentially be relocated over time to other places in the study area if other park activities more directly related to adjacent development are desired. The city's former waste transfer facility at Poplar Street and McGrath Boulevard offers another important park opportunity. Like the dog park, it offers potential for near-term uses such as youth sports fields that serve the whole city, and that by attracting community activity serve as a catalyst for real estate development on nearby parcels. Over time, park program on the site could change or be relocated to places that better serve community goals. For instance, as the potential development value of the prominent site grows over time, the site or portions thereof could be sold (or swapped with other private land) for redevelopment and the proceeds used to purchase other park land in the study area.
  - **Incentivizing large redevelopment projects to dedicate new public park spaces.** The study area has potential, particularly in Inner Belt, for large redevelopment projects that include multiple buildings and the opportunity or need for new street and park infrastructure. Often it is in the direct interest of redevelopment applicants to incorporate new public park space to enhance the value of their real estate development (as well as to help satisfy stormwater management requirements with pervious landscaped area). This interest can be further incentivized by offering a development density bonus, where appropriate to context, in exchange for providing more significant amounts of public park space.
  - **Incorporating public park land into public rights of way.** Streets are important parts of the public open space network, expanding on their inherent role as active walking routes. Traditional streetscape elements like street trees, low plantings and benches create significant amenity by themselves, enhancing the value of adjacent property addresses. Where space allows along existing streets or those created as part of large-scale redevelopment, additional public facilities should be created. The off-street recreation path network leverages this opportunity, creating a highly visible element that is highly functional for access and recreation needs, solves some of the study area's access challenges, incorporates space for additional street trees and public art, and in total serves as a unique signature element lending identity to the study area. Small plazas and broadened sidewalks also offer significant public benefit, particularly where retail or other active uses are possible.
  - **Opportunistic use of land not useful for development or other private use.** Certain land areas lack real development value due to constrained size or shape inadequate for buildings. The rarely used freight railroad track that parallels New Washington Street may also offer opportunity for public use in portions of its land area. Such areas may be useful as park spaces, recreational path corridors and/or for landscaping and stormwater facilities. Public access to these lands may be possible in return for public investment in such infrastructure, in partnership with property owners.
  - **City purchase of park space.** City acquisition of additional land in the study area is always a possibility, but considered challenging due to the growing land costs associated with the area's development value. Therefore, the alternate means of creating park land described above are emphasized in this framework.
- Private landscaped areas such as courtyards, and including green roofs, offer an important complement to public park land. While they may not be publicly accessible, they can offer multiple benefits as attractive landscapes, useful park areas for private use of workers or residents, and places that serve environmental goals benefiting the whole area like reducing heat gain and stormwater impacts. The public places framework diagram thus distinguishes some private open space opportunities to recognize these contributions.

## Creating civic space

### New City Park Creation

Civic space is often built by public agencies. The City of Somerville owns roughly 150 acres of civic space, and has added several acres in recent years. The 0.75-acre Zero New Washington Street Park at the corner of Inner Belt Road was opened in 2009, after the City acquired the land from the MBTA. Since design and construction of new civic spaces can cost around \$1 million per acre, the City is constantly exploring new financing opportunities.



### Private Dedication or Payment in Lieu

A second mechanism used to create new civic spaces relies on the energy of the private market. Many cities require new development to provide civic space on-site. In some cases, a private developer might prefer to transfer land ownership to a public agency, rather than build and maintain the space. Alternatively, developers might make payments in lieu of a land dedication. In Somerville's Assembly Square district, a private developer conveyed two acres of land to the Massachusetts Department of Conservation & Recreation. The revitalized Baxter Park was opened in 2013.



### Private Construction & Maintenance

Great civic spaces add value to private development, and in some cases, private developers build on-site civic spaces, retaining ownership and maintenance responsibilities. In 2013, the 200-unit Maxwell's Green residential was completed in central Somerville, featuring a central green framed by four apartment buildings. The private property owner maintains the 0.75-acre civic space.



## MASTER PLAN FRAMEWORK

## DEVELOPMENT FRAMEWORK

## LAND USE

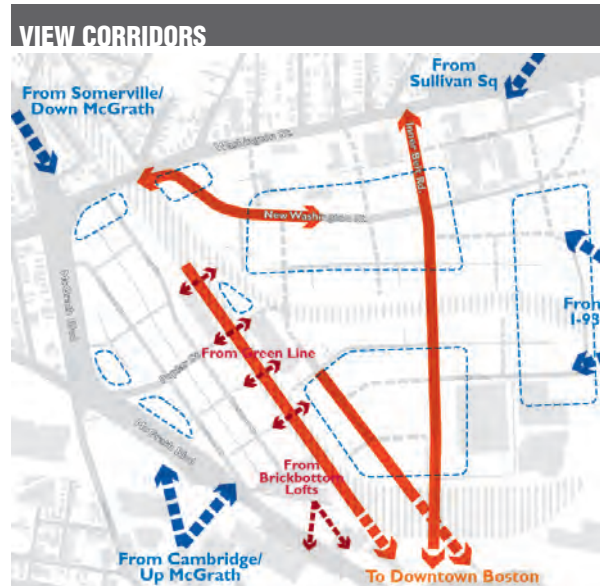
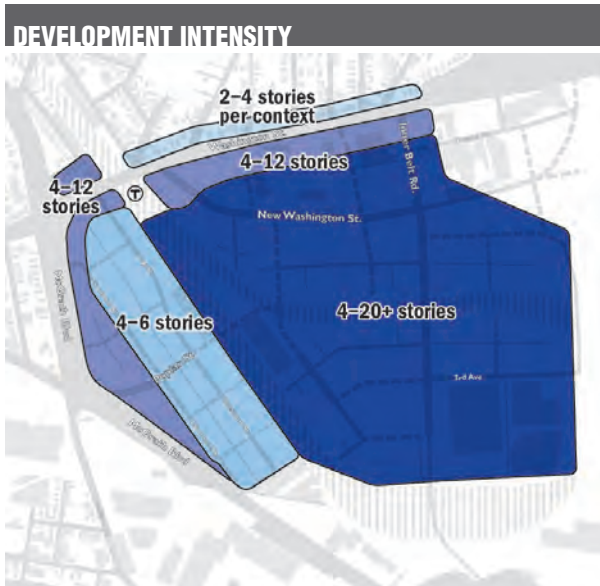


**Land use.** A variety of major land uses should be welcomed on every block in the study area, particularly in areas within  $\frac{1}{4}$  mile of transit service. Mixing uses helps keep streets and parks active weekday and weekend, day and night; enables new development to respond in flexible ways to real estate market potential; and makes most efficient use of transportation and public place infrastructure.

## EFFICIENT SHARED-USE PARKING



**Efficient shared-use parking.** A development approach rooted in a proactive Transportation Demand Management (TDM) policy both promotes efficient use of land and financial resources devoted to parking, and ensures that adequate, conveniently located parking is available to serve existing and new development. Public parking, shared among different land uses that exert peak demand at different times, should be located in the toned areas shown to leave space for occupied buildings along major public streets and parks. As development intensity increases in the study area, structured parking should be used to maximize development potential. Near-term parking needs may be accommodated in part by surface parking if sufficient space is available.



**Development intensity.** Development throughout the study area should preferably rise at least four stories, and at a minimum two to three stories, to best leverage potential development value and shape walkable streets. Additional height is welcomed where it can take advantage of views, expand development capacity and land use options, and lend regional prominence to Inner Belt and Brickbottom. In all cases, building height and massing should be designed to achieve transitions in scale to established neighborhoods or other sensitive context within a one-block area. In light of this goal, building heights up to...

- six stories are appropriate in core areas of Brickbottom respecting its small street and block scale;
- twelve stories are appropriate along McGrath Boulevard and Washington Street, reflecting the greater scale and visibility of these streets; and
- twenty or more stories are appropriate in portions of Inner Belt more than 100 feet from Washington Street, given this area's relative lack of sensitive context, and strong opportunities to leverage value of views out of and into the area.
- Building heights that diverge from these suggested minimums and maximums may be considered if their associated use and design are shown to advance the goals of the vision principles.

**KEY VIEW CORRIDORS AND LANDMARK SITES**

- ← Key public right-of-way view corridors through IBBB
- ← Key public right-of-way view corridors from IBBB
- Other priority view corridors and viewsheds
- ← Major external views into IBBB
- Priority area for landmarks visible from external viewpoint(s)

**View corridors.** The study area's high visibility from regional corridors like I-93 and McGrath Boulevard, and dramatic views out toward downtown Boston, Kendall Square, Somerville, Boston Harbor and other landscapes of interest, are major assets to leverage for their value in building sense of place

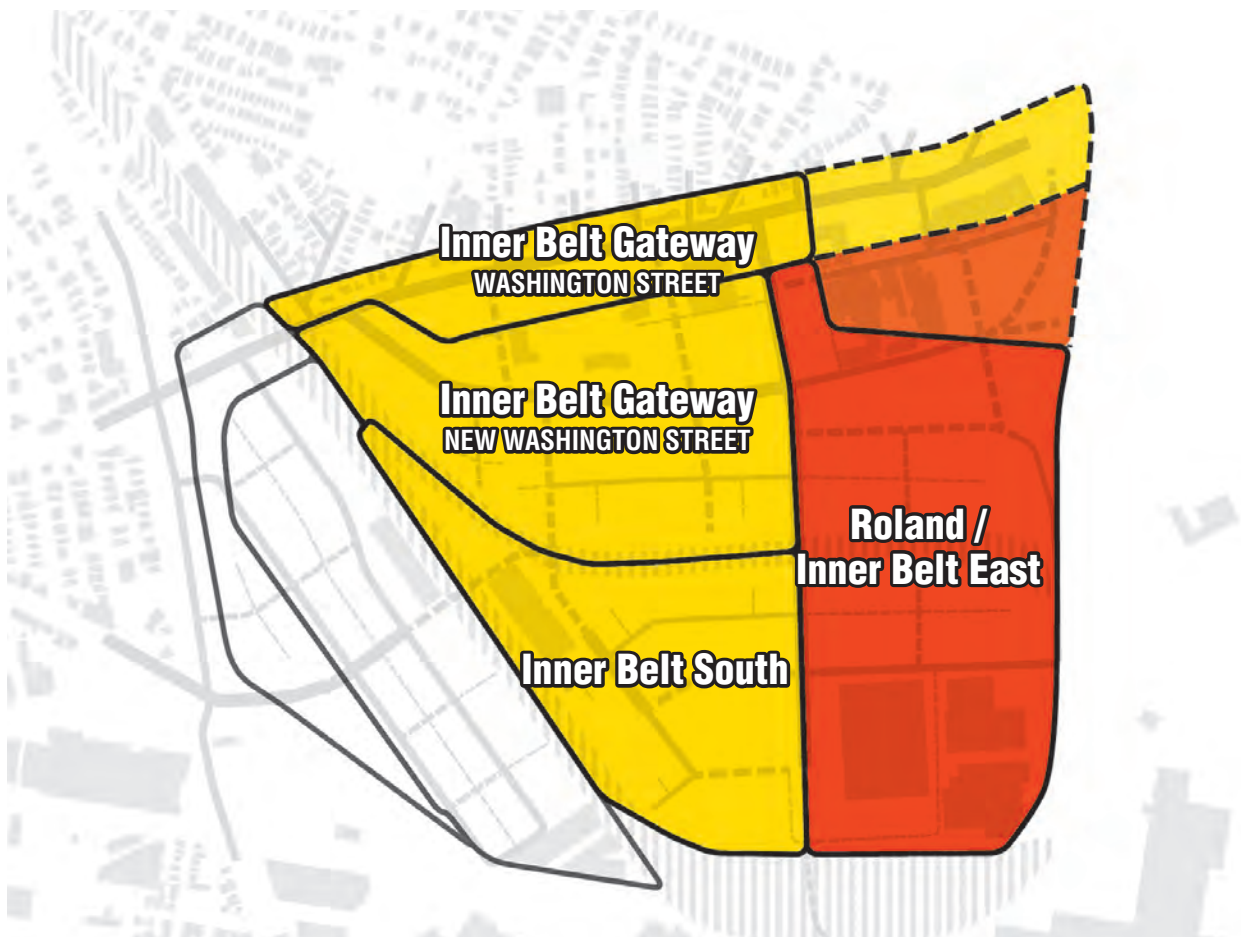
and economic value. Development proposals should demonstrate how they take advantage of these opportunities.

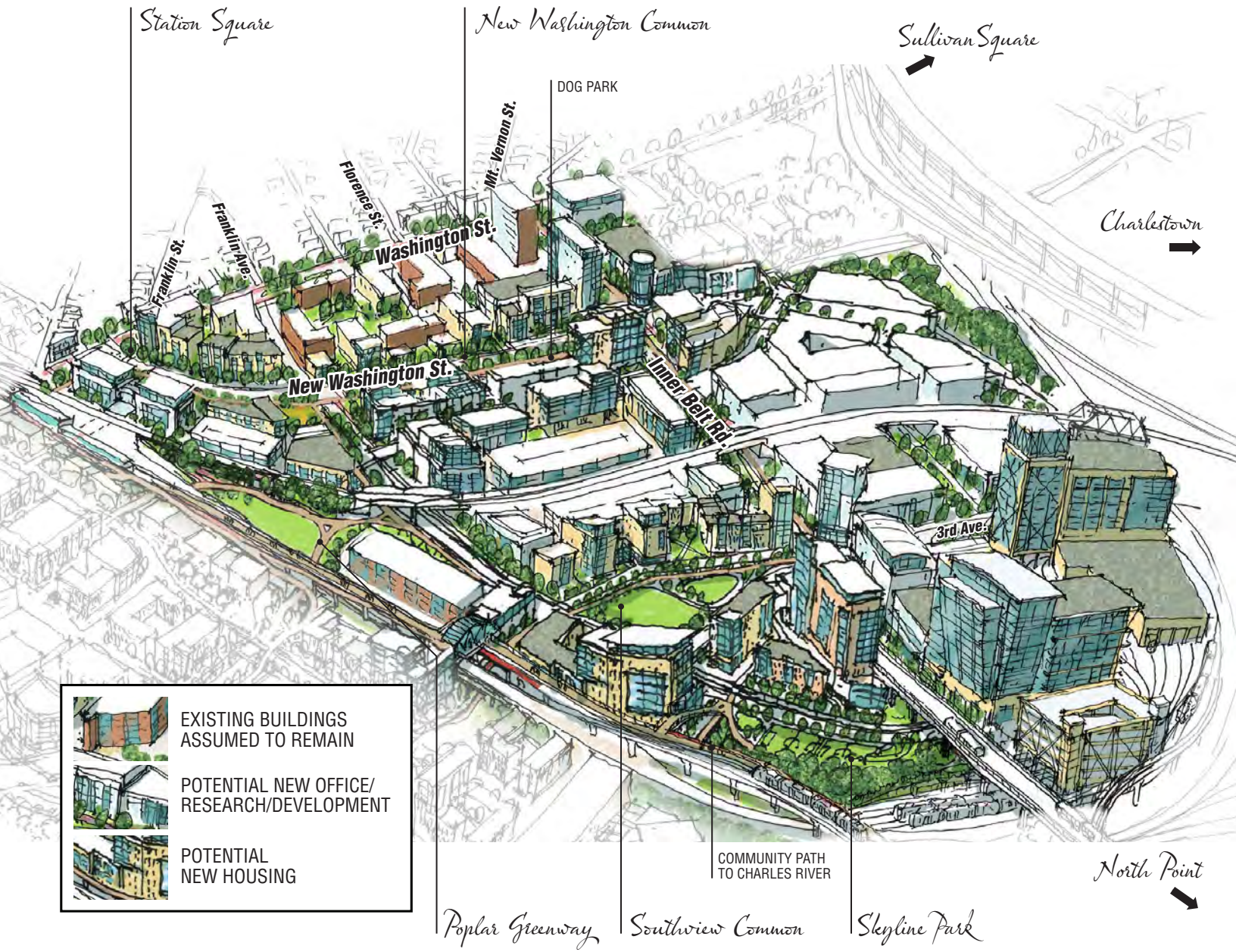


## CHARACTER AREA SUBDISTRICTS

# INNER BELT

*Inner Belt is a large, high-value district that presents unique opportunities in the regional marketplace for master-planned sites, mixed land use, new and more walkable street and block patterns, large-floorplate building types, and larger open space typologies.*





Station Square

New Washington Common

Sullivan Square

DOG PARK

Charlestown

Franklin St.

Franklin Ave.

Florence St.

Washington St.

Mt. Vernon St.

New Washington St.

Inner Belt Rd.

3rd Ave.

COMMUNITY PATH TO CHARLES RIVER

North Point



EXISTING BUILDINGS ASSUMED TO REMAIN

POTENTIAL NEW OFFICE/RESEARCH/DEVELOPMENT

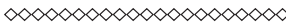
POTENTIAL NEW HOUSING

Poplar Greenway

Southview Common

Skyline Park

# INNER BELT GATEWAY: WASHINGTON ST



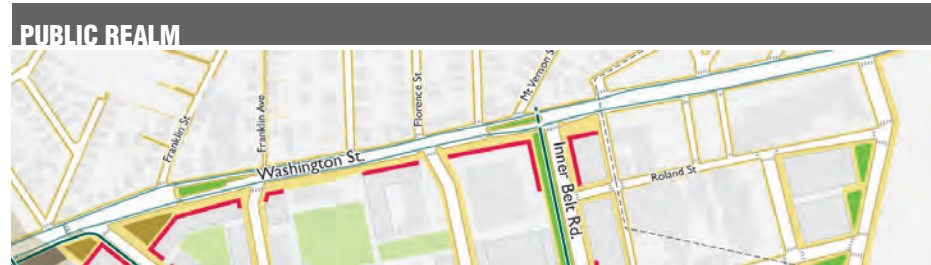
## DEFINING QUALITIES

- Somerville and Inner Belt gateway
- Scale and use transition to East Somerville
- Mixed employment, housing, retail, hospitality
- Access choices

*As the front door to Inner Belt today and location of the Washington Street Green Line station, the Inner Belt Gateway/Washington subdistrict will continue to play a critical role in defining identity, providing access and attracting investment for the Inner Belt area. High quality mixed-use development should be prioritized wherever possible along this corridor in the near term, to demonstrate the new era of economic and community development potential now arriving here with the Green Line. New development should include both office space, to reinforce the larger Inner Belt district as an emerging center for knowledge-based business, and housing, hospitality and retail space, to leverage established market opportunity and help reinforce community connections with East Somerville.*



- |                           |   |                          |
|---------------------------|---|--------------------------|
| Sidewalk                  | Office/research                                   | Public plaza (all hours) |
| Crosswalk                 | Structured parking                                | Public green space       |
| Off-street multiuse trail | Large floorplates and fabrication uses acceptable | Private courtyard        |
| Off-street multiuse trail | Public plaza (all hours)                          | Rail embankment          |
| Housing                   | Existing building                                 |                          |



- |                           |                                |                   |
|---------------------------|--------------------------------|-------------------|
| Sidewalk                  | Priority retail edge           | Rail embankment   |
| Crosswalk                 | Public plaza (full-/part-time) | Proposed building |
| Bike lane                 | Public green space             | Existing building |
| Off-street multiuse trail | Private courtyard              |                   |

HOUSING

PUBLIC SIDEWALKS & PLAZAS WITH ENGAGING BUILDING USES, ART, DESIGN

EXPANDED, IMPROVED WALKING NETWORK

EARLY STAGE SMALL-OFFICE & RETAIL DEVELOPMENT



*The intersection of Washington and New Washington Streets presents the most important near-term opportunity to demonstrate the value of new Green Line service with new high-value development and a public realm designed for people. Planned multifamily housing and neighborhood retail, shown at left, should be complemented with prominent office development and clear, convenient walking access to the station from all directions.*

## INNER BELT GATEWAY: WASHINGTON ST

# *development and design guidelines*

## Streets

### Street character

- Distinctive gateway to Inner Belt area and Somerville as a whole.
- Active neighborhood-oriented ground level retail edge and sidewalk uses.
- Potential short median at city line/Inner Belt Road intersection and where center left turn lane not needed. Otherwise, allocate surplus width to street edges.

### Sidewalk width and general characteristics

- Washington and Inner Belt Road: Widen existing sidewalk to 12'—14'. Minimum of 8' clear passage. Recommended 6' for tree lawns.
- New side streets perpendicular to Washington: 8'-12'
- Mixed use buildings with ground level retail
- Enable free flow of pedestrian traffic. Provide for single row of outdoor seating.
- Accommodate bus stops
- Accommodate added crosswalks, especially near Washington Station

### Plantings, materials and streetscape

- Maintain existing mature trees. Add canopy trees where missing. Utilize trees to help mitigate scale transition between building heights on either side of street. New street trees to match existing already on site.
- Distinctive materials, differentiated from Brickbottom. The use of specialty paving materials to enhance the area; granite and/or concrete unit pavers.
- Signage (banners, median sign and/or other) indicating entrance into Somerville. Light fixtures to include LED banners and speakers for music and public announcements.
- Transform existing suburban-style landscaping (setbacks with lawns and shrubs) toward more urban approach (smaller courtyards shaped by buildings and/or fences; tree lawns; planters) Potential for planted areas to harvest rain water—bio retention

### Parking

- On-street parking typical (maintain existing parking along Washington; add along New Washington)
- Provide parking space for 'The Ride' paratransit and kiss-and-ride at the MBTA station.
- Provide signage to shared-use parking structures within Inner Belt area.



## Street / Building Relationship

### Ground level use mix

- South side: retail, transit station lobby. Automated ticketing machines, kiosk retail, cafes, drug store.
- North side: Convert to neighborhood-oriented retail or dining through renovation/ redevelopment.

### Ground level transparency

- 60-80% ground level transparency

### Loading and servicing

- Locate all servicing off side streets

### Building relationship to parks

- Accommodate public plaza spaces at corners with New Washington



## Building Form

### Overall height

- South side: 5-6 stories; greater heights possible near Washington Station. Include transitional height elements (setbacks, cornice lines etc.) to make transition to 2-3 story scale of north side.
- North side: 2-3 stories typical; 4-6 stories possible if compatible with adjacent neighborhood.

### Setbacks

- Build to line where proposed roadway design can accommodate 14' sidewalk.

### View corridors

- Maintain view corridors along N-S streets to keep the option open for future connections with the street grid south of Lowell Line.

### Specific themes / architectural character

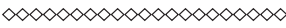
- Encourage distinctive architectural character emphasizing high-value businesses, hotel/visitor accommodations



# INNER BELT GATEWAY: NEW WASHINGTON ST

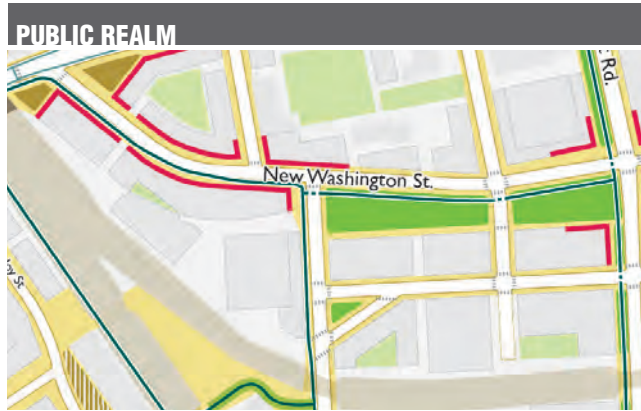
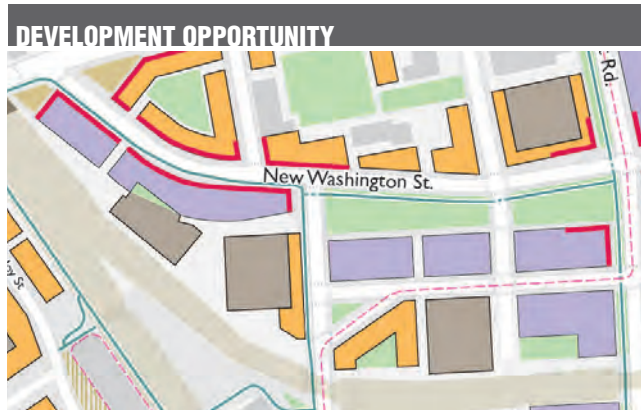


*New Washington Street offers the study area’s most important economic development potential over the next ten years, owing to its convenient walking access to both the Washington and Sullivan Square transit stations, adjacency to established life science, hospitality and housing investment, and variety of significant parcel redevelopment opportunities. Redevelopment potential on both sides of the street, and the current presence of a park and other public land, create special opportunity to transform the street into a landmark public space that heightens development value and builds sense of community within and beyond the subdistrict.*



## DEFINING QUALITIES

- High quality, high profile public spaces and architecture
- Destination park
- Mixed employment, hospitality, housing, retail



FLEXIBILITY FOR SIGNIFICANT BUILDING HEIGHT AND FLOORPLATES—DESIGNED TO HUMAN SCALE

PUBLIC SPACE AMENITY SERVING WORKERS, RESIDENTS, VISITORS



*The New Washington Street dog park became a valued community destination remarkably quickly. This public space should evolve into one that serves a growing variety of people living and working nearby, and coming from other neighborhoods, as redevelopment proceeds on parcels along New Washington. As this happens, consider relocating the important dog park function to another space(s) in the study area as a way to establish additional community park destinations.*



## INNER BELT GATEWAY: NEW WASHINGTON ST

### Sample investment sequence along New Washington Street

New Washington Street has special significance as a place for early development opportunity. Its direct connection to the new Washington Street Green Line station, easy access from Washington Street and Inner Belt Road, variety of parcels with flexible redevelopment potential as well as viable ongoing uses, and presence

of Zero New Washington Park, provide good assets and options attracting reinvestment. Images on these pages depict a potential sequence of site redevelopment and infrastructure improvements working hand in hand to create a great place to work, live and play.

#### EXISTING



*Today, New Washington is not an inviting place to walk or invest: sidewalks are missing, abandoned boxcars create an eyesore, and the adjacent Cobble Hill housing understandably buffers itself from this view with dense landscaping.*

#### PHASE 1



*In the distance next to Washington Station, a new office building is developed accommodating multiple small tech business tenants and ground floor retail. Sidewalks and street trees are installed flanking the street; an off-street cycle track is constructed to one side.*

**PHASE 2**



*A second office building is constructed near the bend in the street. Behind the office buildings, a public parking structure is built to replace temporary surface parking. A public art installation at left replaces the abandoned boxcars.*

**PHASE 3**



*New housing and neighborhood retail facing New Washington Street are developed on the right on underutilized portions of the Cobble Hill housing site at right. A large floorplate office or lab building is developed at far left for a major research company. The lightly used freight track on the left is integrated with publicly owned land to create a landscaped park.*

## INNER BELT GATEWAY: NEW WASHINGTON ST

# development and design guidelines

## Streets

### Street character

- A vibrant mix of high-value residential and office/research uses over ground floor retail and other active uses, grouped around a central linear park space serving a mix of residents, visitors and workers.

### Sidewalk width and general characteristics

- 12'- 20.' Sidewalk widths along park edges may differ from those along building edges.
- New side streets perpendicular to New Washington: 8'-12'
- Wider sidewalk with outdoor seating at retail uses (likely clustered toward Washington Station and Inner Belt Road). Consider consistent generous width accommodating more plantings and seating than other streets in study area.

### Plantings, materials and streetscape

- Canopy trees. Consider the use of larger street trees with open canopies for the wider sidewalks; Honey locust. Smaller trees on the narrower streets. Different tree species will help to define neighborhoods
- Signature linear park with numerous viewpoint along and across park to adjacent building facades. Park to include an in-ground water feature and areas for activities and contemplation. Dog park area?
- Accommodate occasional train passage along existing freight track; integrate track into landscape design. Potential to have freight carriages provide dining opportunities at certain times of the year
- Distinctive materials, differentiated from Brickbottom. Park and streets to incorporate materials and some references to the train which runs through the heart of the area
- Distinctive public art

### Parking

- On-street parking on all streets.
- Provide signage to shared-use parking structures located off side streets



## Street / Building Relationship

### Ground level use mix

- Mix of infill residential, office and hotel with ground floor retail/dining and entertainment on north side of street and park. Design ground level spaces to be convertible to retail.
- Emphasis on commercial/office uses south of the park, with potential housing interspersed, and ground level retail/dining/entertainment where possible. Design ground level spaces to be convertible to retail.

### Ground level transparency

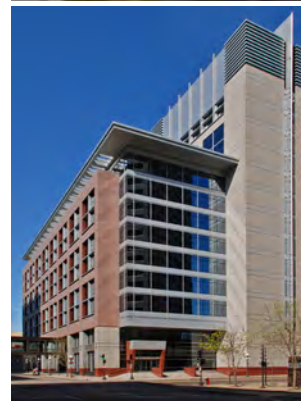
- 60-80% ground level transparency

### Loading and servicing

- Locate entrances to parking garages and loading docks from side streets

### Building relationship to parks

- Building use and design should leverage quality and views of central park along New Washington.



## Building Form

### Overall height

- 5-6 stories typical, with towers of slender to moderate floorplate possible.

### Setbacks

- Build to line where proposed roadway design can accommodate 14' sidewalk. If the sidewalk is less than 10', employ 6'-10' setback to allow space for outdoor dining.

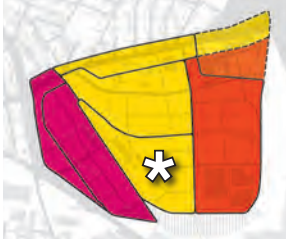
### View corridors

- Locate and design buildings to be prominent at either end of linear park.

### Specific themes / architectural character

- High quality, high-value design with significant transparency. Mix housing and/or hotel amidst office to prevent monolithic office character.

# INNER BELT SOUTH



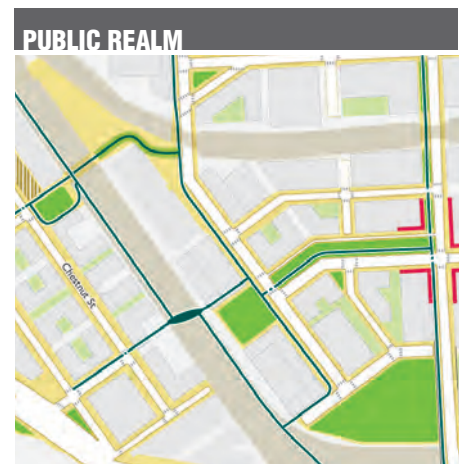
*Inner Belt South provides both an economically strong business park environment today, and the study area’s most flexible and expansive set of redevelopment opportunities over the long term. The time required to enhance multi-modal access to the area—starting with replacing the “tubes” and creating safe, convenient walking access to the Green and Orange lines, and moving on to North Point/Kendall Square connections—means that current businesses can continue to operate in a stable environment even as market potential matures to unlock a new generation of development opportunities in the area. Those opportunities will leverage expansive potential for building height and floor area serving a variety of uses, fast connections to Kendall Square and other economic centers, regional views, and high quality public street and park spaces.*

## DEFINING QUALITIES

- View corridors to Boston/Kendall
- Destination park space
- Greater building height
- Mixed employment, housing



- Sidewalk
- Crosswalk
- Off-street multiuse trail
- Off-street multiuse trail
- Housing
- Office/research
- Structured parking
- Large floorplates and fabrication uses: acceptable
- Public plaza (all hours)
- Public green space
- Private courtyard
- Rail embankment
- Existing building



- Sidewalk
- Crosswalk
- Bike lane
- Off-street multiuse trail
- Priority retail edge
- Public plaza (full-/part-time)
- Public green space
- Private courtyard
- Rail embankment
- Proposed building
- Existing building

NEW CONNECTIONS TO WASHINGTON STATION, BRICKBOTTOM

HIGH-VALUE COMMERCIAL AND HOUSING DEVELOPMENT

PARK, COMMUNITY PATH CONNECTIONS CREATING DISTINCT SENSE OF PLACE



*New direct walking connections to Green Line, Orange Line and Urban Ring corridor transit will unlock market potential to take advantage of Inner Belt South's large scale redevelopment opportunities. Tall buildings with views to Boston, Cambridge and Boston Harbor will tangibly demonstrate Somerville's strategically valuable location for business investment.*

## INNER BELT SOUTH

# *development and design guidelines*

## Streets

### Street character

- A vibrant mix of high-value residential and office/research uses over ground floor retail and other active uses, grouped around a central park space serving a mix of residents, visitors and workers.

### Sidewalk width and general characteristics

- Inner Belt Road and Third Street extension (west of Inner Belt Road): 12'-14'. Accommodate BRT/bus stops.
- Other new streets: 8'-12'

### Plantings, materials and streetscape

- Canopy trees selected and located to be compatible with significant truck traffic. The selection of columnar street trees might be beneficial in this area to avoid conflicts with passing trucks.
- Distinctive materials, differentiated from Brickbottom
- Landscaped berm as buffer to active rail tracks and maintenance facilities. The berm could become an important feature within the landscape.

### Parking

- On street parking
- Structured parking serving multiple uses in district



## Street / Building Relationship

### Ground level use mix

- Research, office, housing and hotel uses. Ground level retail/dining/entertainment where feasible.

### Ground level transparency

- Inner Belt Road and Third Street extension: 50-80% ground level transparency. Other streets: 40-60%.

### Loading and servicing

- Limit entrances to parking garages and loading docks to side streets.

### Building relationship to parks

- Leverage views to Inner Belt Intensity central park space.



## Building Form

### Overall height

- 6-30 stories. Pedestrian-scale elements toward ground level. Towers of slender to medium floorplate.

### Setbacks

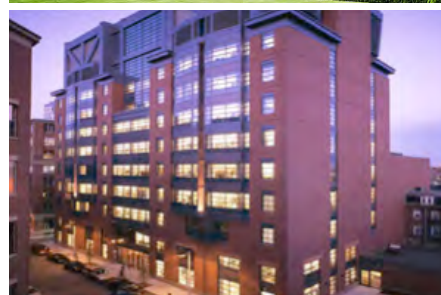
- No more than 10'

### View corridors

- Highlight public and private views toward Kendall Square, Lechmere and Boston.

### Specific themes / architectural character

- Encourage diverse architectural vocabulary that is tied together by an active pedestrian realm; where each residential building and towers is a distinct part of a unified high density mixed used cluster.

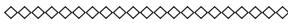




# ROLAND / INNER BELT EAST



*This subdistrict offers premier commercial development opportunity due to its high visibility and accessibility from I-93 and the Orange Line, substantial building floorplate and height opportunities, and adjacency to established life sciences uses. While Inner Belt Road and new streets in the subdistrict deserve high quality landscape and building architecture as premier, walkable address streets, the subdistrict’s edges along rail infrastructure offer the study area’s greatest opportunities for industrial and large-scale development unconstrained by pedestrian-oriented settings.*



**DEFINING QUALITIES**

- Somerville and Inner Belt gateway
- View corridors in and out
- Roland St. historic character, life sciences use
- Greater building height
- Greater floorplates possible
- Mixed employment, hospitality, retail



FLEXIBILITY FOR SIGNIFICANT BUILDING HEIGHT AND FLOORPLATES

HIGH-VALUE RESEARCH AND OFFICE BUILDINGS WITH ACTIVE GROUND LEVEL USES

TRANSIT SHELTER SERVING BRT USERS

"TUBES" REPLACED WITH ATTRACTIVE BRIDGE FACILITATING CONTINUOUS STREETScape.

OFF-STREET RECREATIONAL PATH OR CYCLE TRACK

HOUSING

EXPANDED, IMPROVED PEDESTRIAN REALM



*Roland/Inner Belt East offers prime locations for development that benefits from high visibility, large floorplates, large total floor area, and clustering with life sciences program.*

**ROLAND / INNER BELT EAST***development and design guidelines*

## Streets

**Street character**

- Establish a walkable street grid compatible with large floor plate office/research/light industrial buildings and structured parking facilities.

**Sidewalk width and general characteristics**

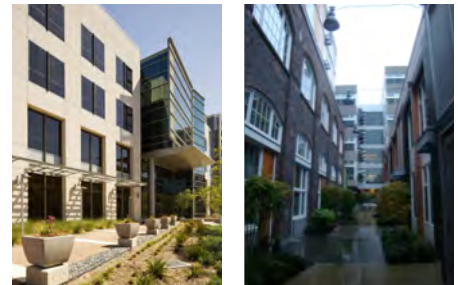
- Inner Belt Road: 12'-14'. Accommodate BRT/bus stops.
- Roland Street and new streets: 8'-12' (or match existing Roland St. section)

**Plantings, materials and streetscape**

- Canopy trees selected and located to be compatible with significant truck traffic. The selection of columnar street trees might be beneficial in this area to avoid conflicts with passing trucks.
- Sidewalks to be concrete only

**Parking**

- On street parking
- Structured parking serving multiple uses in district



## Street / Building Relationship

**Ground level use mix**

- Research, office, light industrial and hotel uses. Ground level retail/dining/entertainment where feasible.

**Ground level transparency**

- Inner Belt Road: 50-80% ground level transparency. Other streets: 40-60%.

**Loading and servicing**

- Limit entrances to parking garages and loading docks to side streets

**Building relationship to parks**

- Building use and design should leverage quality and views of central park along New Washington.



## Building Form

### Overall height

- 6-20 stories

### Setbacks

- No more than 10'

### View Corridors

- Accommodate extension of Roland Street corridor to Inner Belt Road.
- Frame views down Inner Belt Road toward Lechmere, Back Bay

### Specific themes / architectural character

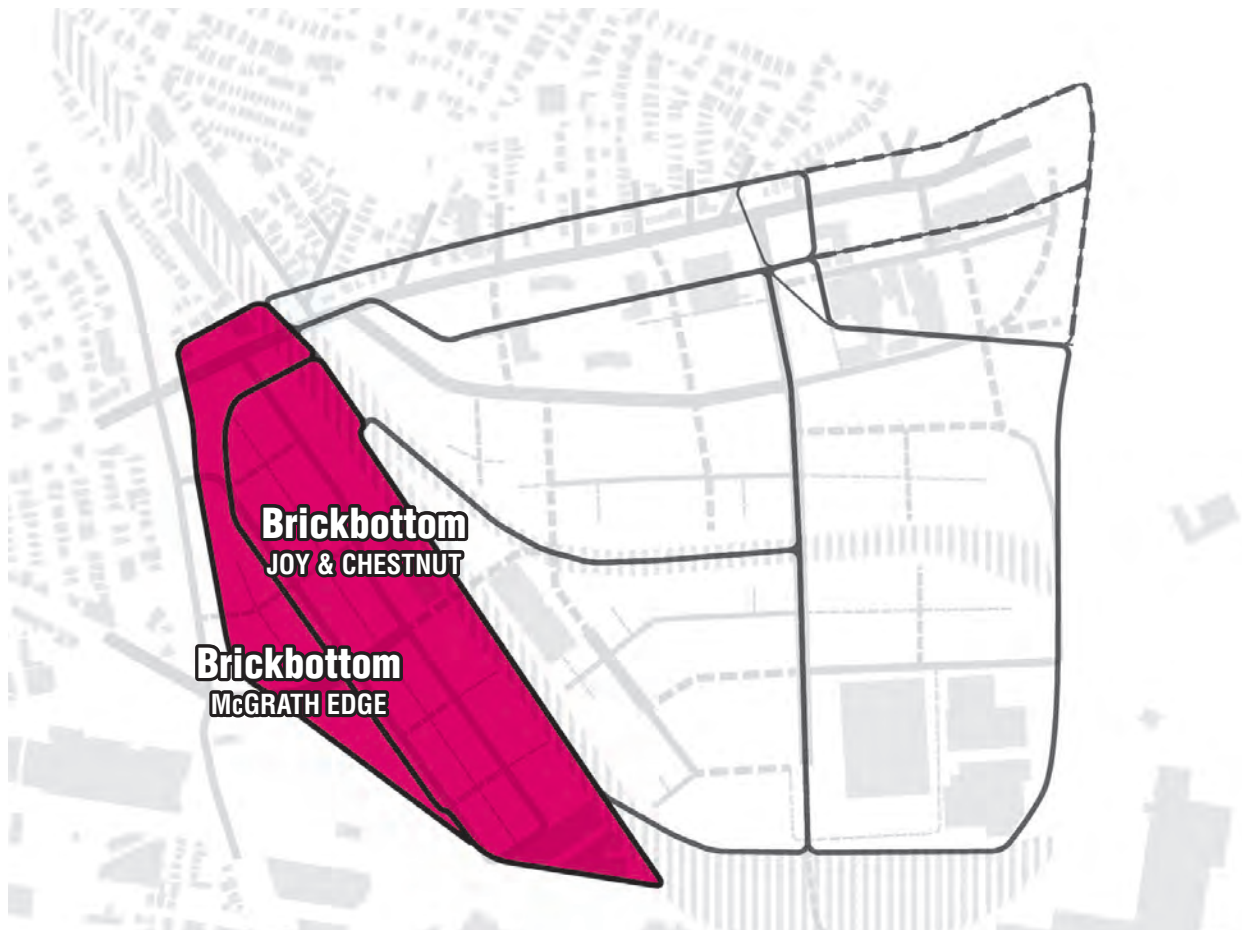
- Where possible open up ground level research and workshop spaces with transparent glazing bringing about a visual connection between pedestrians along the side walk and building users.
- High quality, high-value design with significant transparency.



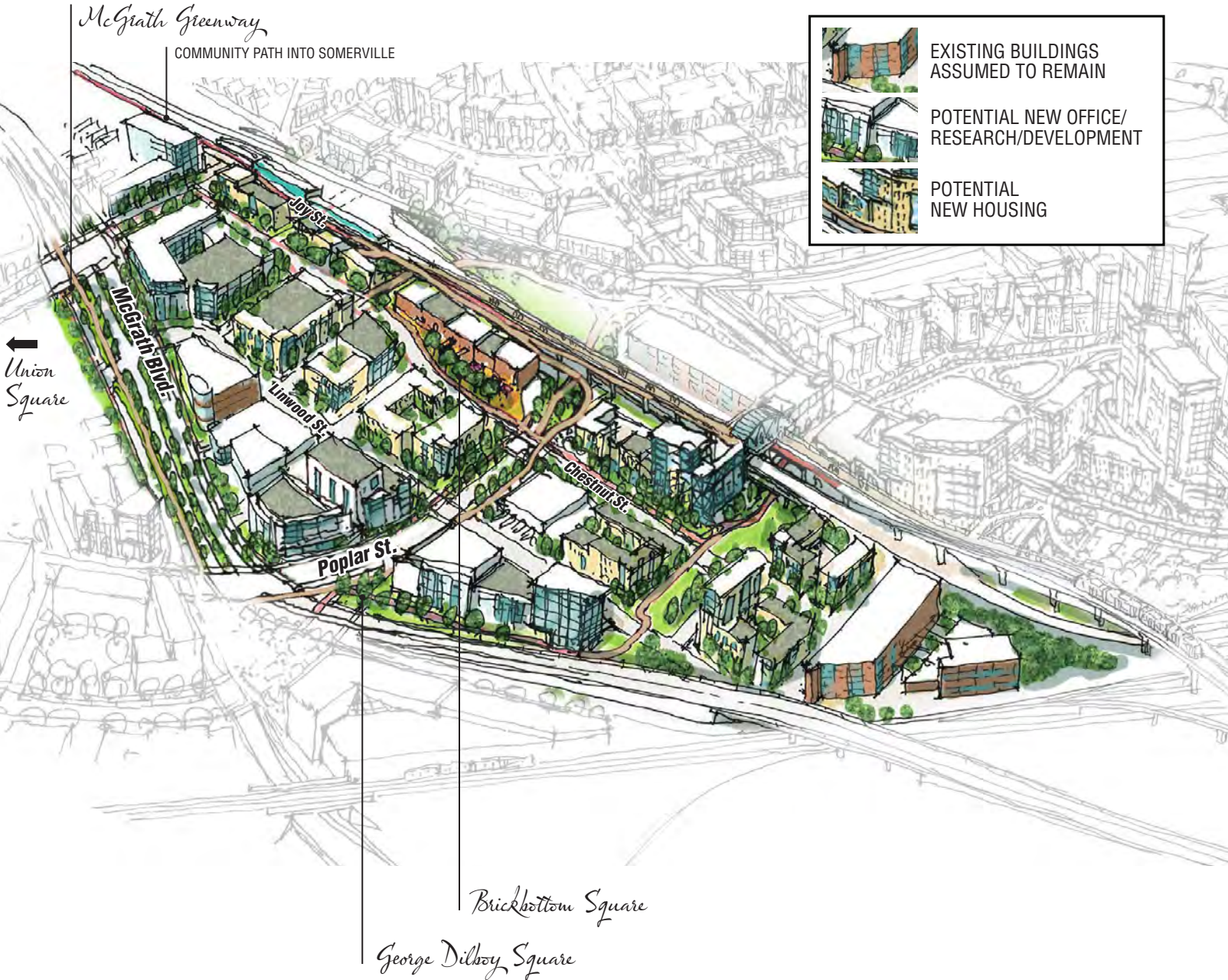
## CHARACTER AREA SUBDISTRICTS

# BRICKBOTTOM

*Brickbottom is a funky loft, arts/creative economy and nightlife district, with a relatively established street grid and compact, flexible-use public spaces that are scattered throughout the district. A mix of old and new buildings (and hence price points) provide variety of architecture and market opportunity. Building heights should generally rise four to six stories, with potential for as many as 12 stories immediately adjacent to McGrath Highway and Washington Street.*

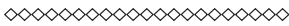
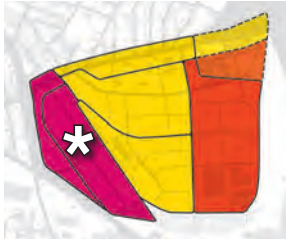


### ILLUSTRATIVE VISION CONCEPT



	EXISTING BUILDINGS ASSUMED TO REMAIN
	POTENTIAL NEW OFFICE/RESEARCH/DEVELOPMENT
	POTENTIAL NEW HOUSING

# BRICKBOTTOM / JOY & CHESTNUT



## DEFINING QUALITIES

- Fine-grained scale: narrower streets, smaller parcels
- “Loose fit” tolerating mix of light industry, arts, office, housing, entertainment, retail
- Brick and industrial materials
- Public art
- Intermittent plantings

*Brickbottom sports the study area’s most established sense of place, anchored by a strong arts presence. While individual parcel redevelopment opportunities are limited in size, their variety, scale and walkable proximity to Washington Station mean they are both ripe for near term redevelopment and will collectively register substantial gains in economic impact and quality of place. Brickbottom can tolerate and thrive on coexistence of a wide variety of activities from light industry and arts fabrication to housing and office.*



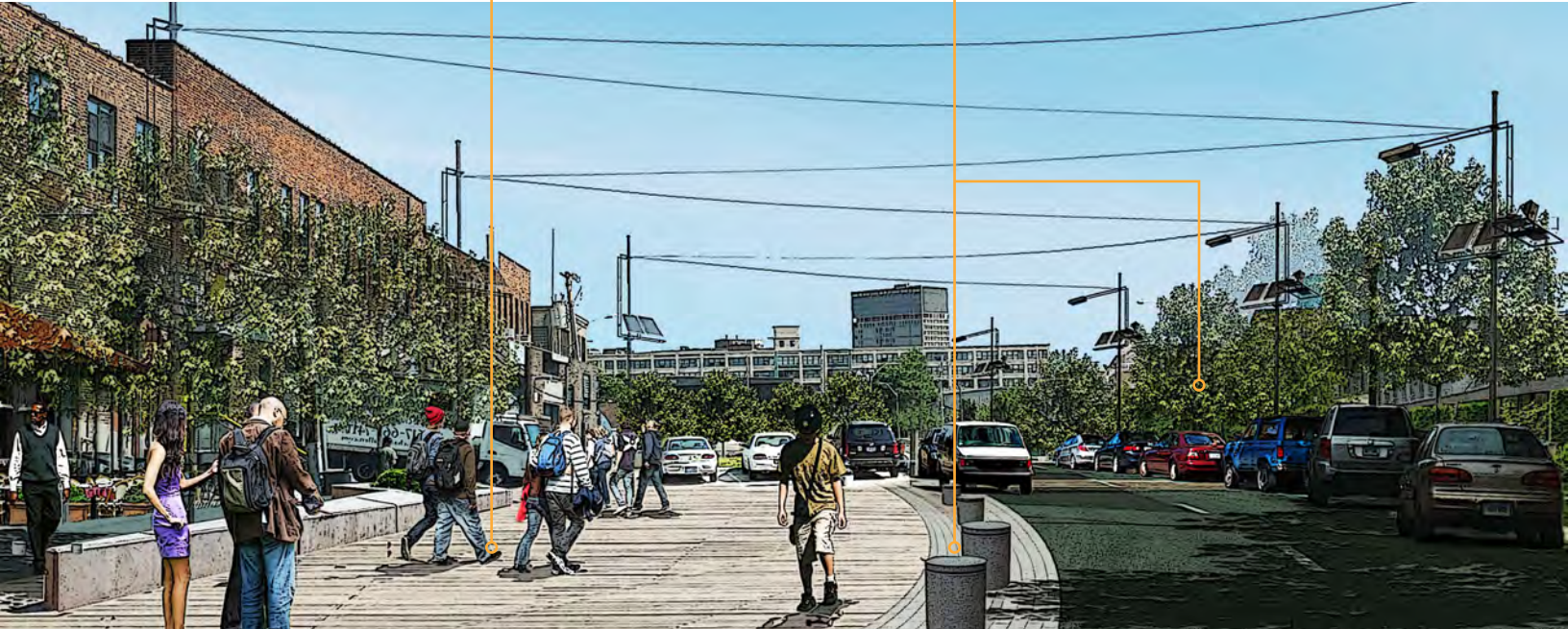
- Sidewalk
- Crosswalk
- Off-street multiuse trail
- Off-street multiuse trail
- Housing
- Office/research
- Structured parking
- Large floorplates and fabrication uses acceptable
- Public plaza (all hours)
- Public green space
- Private courtyard
- Rail embankment
- Existing building



- Sidewalk
- Crosswalk
- Bike lane
- Off-street multiuse trail
- Priority retail edge
- Public plaza (full/part-time)
- Public green space
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- Proposed building
- Existing building

DUAL USE OF PARKING/LOADING AREA FOR OCCASIONAL PUBLIC/ARTS EVENTS

STREETScape, WALKING AND BIKING IMPROVEMENTS LINKING BRICKBOTTOM TO GREEN LINE



NIGHT TIME ACTIVITY



INFILL: MIX OF OFFICE, ARTS, HOUSING, LIGHT INDUSTRY



*Joy Street and adjoining parking lots can become vibrant centers of community activity through design and programming that allow public and private uses to share the same spaces at different times. Needed new walks, trees, and lighting should be installed to allow broad flexibility of land use and vehicular access.*



**BRICKBOTTOM: JOY & CHESTNUT***development and design guidelines*

## Streets

**Street character**

- Reinforce and build upon the mixed-use, industrial character of the street with pedestrian friendly amenities for newer residents and visitors.

**Sidewalk width and general characteristics**

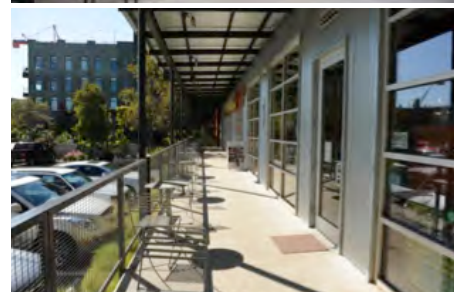
- 8'—12' on Joy, Chestnut, Linwood, Fitchburg
- 12'-14' on Poplar
- New streets parallel to Poplar: 6'-12'. Consider curbless shared pedestrian/vehicle streets.
- Enable free flow of pedestrian traffic while at the same time accommodating existing front loading zones in live-work buildings. Locate any outdoor dining or other outdoor active uses away from loading facilities.
- Consider lighting suspended from and/or projected on buildings

**Plantings, materials and streetscape**

- Include trees where possible, though limited street width and occasional loading docks limit consistent placement. Consider interspersing trees within parking lane. Species to consider in the narrow streets are Armstrong Red Maples and Princeton Elms which have an upright growth habit.
- Include additional plantings using planters, trellises, green walls or other strategies, especially where trees are infeasible. Due to the narrow streets static planters might be problematic. Consider installing smaller removable planters.
- Use materials compatible with industrial character—reinforcing limited presence of “brick” but also other industrial materials. Site furnishings to be constructed of powder coated metal with forms consistent with the industrial appearance. Consider a narrow brick furniture zone for the placement of lights, benches, trash receptacles, etc. Main walking surface to be poured in place concrete. Install solar power parking stations as a standard element throughout the entire project

**Parking**

- Employ on-street parking as an active design device to reduce vehicle speeds and to provide for additional parking demands from newer buildings.
- Consider eliminating the curb between sidewalks and streets, using bollards to separate on-street parking from sidewalk spaces



## Street/Building Relationship

### Ground level use mix

- Primary Uses: artist studios & galleries, small offices, restaurants and cafes, entertainment, retail, live/work spaces
- Secondary Uses: housing
- Prevent conflict between housing and other uses by locating housing on upper floors only or by raising ground floor housing at least one foot above grade.

### Ground level transparency

- Encourage retrofitting existing building with greater transparency at ground level.
- Encourage transparent garage doors that facilitate easy conversion of indoor parking spaces into galleries, retail, office or other uses.
- 40% - 60% transparency in new buildings

### Loading and servicing

- Retain the existing front loaded service conditions, but selectively employ street design elements like bollards, trees and planter boxes to prevent conflict between service vehicles and pedestrian traffic.
- Repurpose loading docks where possible for outdoor dining, stoops etc.

### Building relationship to parks

- Support a network of semi-public plazas and open spaces, by utilizing portions of underused front setbacks between the streets and existing buildings.



## Building Form

### Overall height

- 3-6 stories, with the option of taller towers at Washington St. edge near Washington Station

### Setbacks

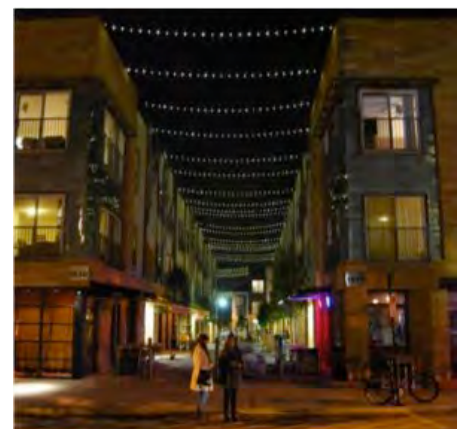
- None (Minimum 4' setback where outdoor seating intended).

### View corridors

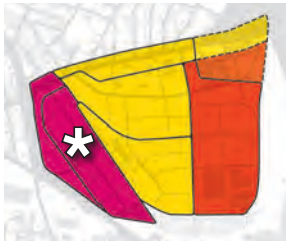
- Retain view corridors to downtown Boston.
- Highlight prominent buildings at ends of streets and at bends in Joy Street.

### Specific themes / architectural character

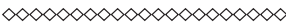
- Preserve and encourage the finer grain, industrial character of Brick bottom.
- Maintain the similar palette of exposed brick and earthy color tones for future buildings
- Limit uninterrupted building length to 150'
- Employ large windows and transparent garage doors for ground level uses. Large industrial-style windows encouraged on upper floors.



# BRICKBOTTOM / McGRATH EDGE



The Brickbottom/McGrath Edge subdistrict makes the study area's most important connections to Union Square, Boynton Yards and adjacent areas seeing transit oriented redevelopment. Near-term improvements to McGrath Highway will enhance walking and biking connections to these areas, while the longer-term conversion of McGrath into an at-grade boulevard and greenway will unlock new market opportunity for high-value, large-scale mixed-use development.

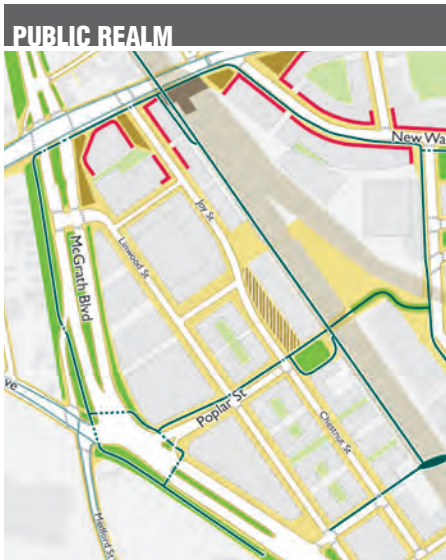


## DEFINING QUALITIES

- Larger scale responding to McGrath Boulevard
- Park/greenway setting with consistent tree canopy; public art
- High value, high quality landmark architecture



- Sidewalk
- Crosswalk
- Off-street multiuse trail
- Off-street multiuse trail
- Housing
- Office/research
- Structured parking
- Large floorplates and fabrication uses acceptable
- Public plaza (all hours)
- Public green space
- Private courtyard
- Rail embankment
- Existing building



- Sidewalk
- Crosswalk
- Bike lane
- Off-street multiuse trail
- Priority retail edge
- Public plaza (full/part-time)
- Public green space
- Private courtyard
- Rail embankment
- Proposed building
- Existing building

EXPANDED, IMPROVED WALKING AND BIKING NETWORK

STATION INTEGRATED WITH BUILDING DESIGN

MIXED OFFICE AND HOUSING WITH GROUND FLOOR RETAIL



*A variety of parcels west of Washington station hold potential for transit-oriented redevelopment that establishes prominent, pedestrian-friendly connections to Union Square and beyond.*

**BRICKBOTTOM: McGRATH EDGE***development and design guidelines*

## Streets

**Street character**

- Tree lined multi-way boulevard and greenway framed by mid-rise, mixed-use building edge

**Sidewalk width and general characteristics**

- 10'-15' along building edges
- Cycle track or multi-use path along greenway
- Outdoor dining, public art, water features and provision for parking mobile retail vehicles (e.g. food trucks)

**Plantings, materials and streetscape**

- Tree canopy along and across boulevard. Tree species for the central roadway median are to be columnar. For trees planted in the sidewalk zone consider London Plane or Pin Oaks.
- Distinctive linear lower landscape plantings along greenway. Sidewalk materials help to define zones for pedestrian movement and outside dining/gathering spaces. Consider the use of moveable planters for color and texture; they can also help to define the outside dining areas. Sidewalk materials to consist of a brick furniture zone and concrete. Site amenities to be a modern mix of metal and wood.
- Use plantings, public art and/or signage to establish pedestrian scale and buffer pedestrians and bikes from traffic. Bump outs created for pedestrian safety can also house public art and/or water features whilst providing ample room for public viewing. Food trucks can also be stationed in close proximity to the bump outs to provide larger dining areas. Installing solar parking stations will reduce the amount of clutter on the street.

**Parking**

- Consider expanding on-street parking by adding a carriage road with parking on both sides (28'-34' wide overall)



## Street/Building Relationship

### **Ground level use mix**

- Office and retail. Non-retail spaces should be convertible to retail.

### **Ground level transparency**

- 50-80% ground level transparency

### **Loading and servicing**

- Eliminate all service access from McGrath edge. Locate service docks from mid-block alleys.

### **Building relationship to parks**

- Building use and design should leverage quality of McGrath greenway as linear park

## Building Form

### **Overall height**

- 5-6 stories typical, with towers of slender floorplate possible.

### **Setbacks**

- None.

### **View corridors**

- Reinforce views toward Kendall Square

### **Specific themes / architectural character**

- Signature mixed use boulevard for the city of Somerville that celebrates the re-insertion of pedestrian realm with the city fabric.

## 4 | PUTTING THE PLAN TO WORK



A good neighborhood plan is easy to put to work. It must clearly spell out short-term actions that can be taken, to build momentum and enthusiasm for the medium-term and long-term activities. Issues that require many years to coordinate and complete should be broken into bite-sized pieces. People love checking items off of a list, and long-range neighborhood plans must play to that strength. After all, you can't manage what you can't measure.

Similarly, plans need to use everyday language. Since government agencies often take the lead on plan activities, there is always a risk of using too much technical or bureaucratic language in the plan. Good neighborhood plans remind the reader that each action is intended to improve quality-of-life, help businesses succeed, and increase community pride.

This chapter is structured as a calendar. The Inner Belt Brickbottom Plan calls for the City and its partners to take 100 specific actions over the next decade to achieve the goals of the plan. For each action, an approximate starting point in time is listed. Of the 100 actions listed, 50 will begin in 2014. Some actions will extend beyond 2024, but to keep the calendar readable, years in the later period (2024-2035) are grouped together.

This neighborhood plan is rooted in five core values: creating places for people; connecting neighborhood to neighborhood; growing the economy; coordinating public and private investment; and, making development sustainable. Since these values are broad, they are broken down into more manageable strategies, which continue to use everyday language.

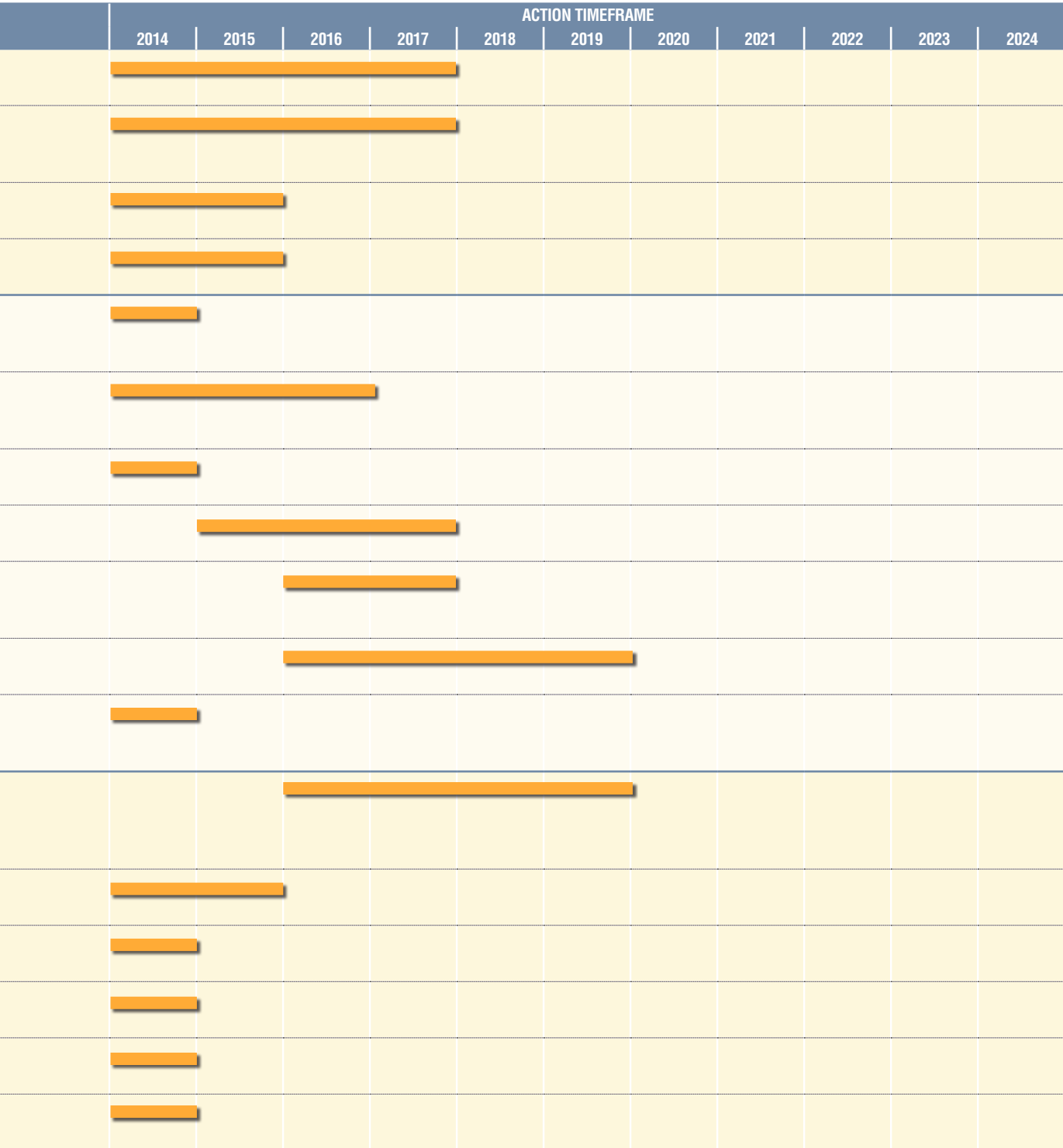
<i>Plan Values</i>	<i>Strategies</i>
<p>Create great places for people.</p>	Welcome People to Somerville
	Invest in Civic Spaces
	Invite People to Walk
	Make Bicycling a Signature of the District
	Share Street Space Between Cars and People
	Create 18-Hour Neighborhoods
<p>Connect neighborhood to neighborhood.</p>	Replace the Tubes
	Connect Inner Belt to Brickbottom
	Link Inner Belt and Brickbottom to East Somerville
	Connect Inner Belt to Cambridge
	Connect Inner Belt to Boston
<p>Grow the economy.</p>	Make Commercial Development Easy
	Ensure that Inner Belt Brickbottom are Somerville Neighborhoods
	Support New Job Creation
	Develop the Local Workforce
	Empower a Business Management Organization
<p>Coordinate public and private investment.</p>	Create and Expand Street Grids
	Capture the Value of Transit
	Plan Regionally
<p>Make development sustainable.</p>	Utilize Low-Impact Development Practices
	Manage Stormwater Effectively and Efficiently
	Promote Choice in Housing
	Manage Transportation Demand



## 1 CREATE GREAT PLACES FOR PEOPLE

**Table X: Action Items: Create great places for people**

ACTION STRATEGY	ACTION DETAILS	AGENTS (LEAD/PARTNER)	
<b>1.1 Welcome people to Somerville</b>	Partner with the MBTA and MassDOT to design and construct the Green Line station at Washington Street, with 360 degrees of public accessibility	City, MBTA, MassDOT	
	Partner with the MBTA and MassDOT to design and construct the full Somerville Community Path Extension from the Green Line station at Washington Street to the new Lechmere Station, with connections to local streets in and around Inner Belt and Brickbottom	City, MBTA, MassDOT	
	Install additional Inner Belt gateway signs like the one at the corner of Inner Belt Road and New Washington Street.	City, local business and property owners	
	Launch a Citywide wayfinding signage program including financing strategies for design and installation	City, local business and property owners	
<b>1.2 Invest in civic spaces</b>	Ensure that reformed zoning includes a process by which each development project must build high-quality civic space on-site, or provide a payment in-lieu to allow the City to purchase and create centralized space like those spaces shown on the Vision Plan.	City	
	Design and install a temporary, pedestrian-oriented use at the former Waste Transfer Facility site.	City, local artists, business and property owners, residents	
	Ensure that privately-owned civic spaces included in the redevelopment of 90 Washington Street are built and maintained.	City, property owner	
	Seek opportunities to create additional temporary recreation and/or public art spaces on underutilized sites in Inner Belt until redevelopment occurs.	City, business and property owners, local artists	
	Expand the Zero New Washington public space west along Cobble Hill Road to create the “New Washington Common” shown in the Vision Plan. <i>See also action 3.2.</i>	City, Pan Am Railways, business and property owners, local artists	
	Partner with the private owner of 86 Joy Street to plan and build “Brickbottom Square” as a front yard for the building, as shown in the Vision Plan. <i>See also action 3.1.</i>	City, property owner, local artists	
	Ensure that reformed zoning includes a process by which each development project must build high-quality civic space on-site, or provide a payment in-lieu to allow the City to purchase and create centralized space like those spaces shown on the Vision Plan	City	
<b>1.3 Focus on walking</b>	Design and construct sidewalks and crosswalks on Washington Street, New Washington Street, Inner Belt Road, Joy Street, Chestnut Street, Linwood Street and Poplar Street that are ADA-compliant, constructed of durable, long-lifespan materials, provide opportunities for outdoor café seating and encourage comfortable pedestrian life. <i>See also action 2.3.</i>	City, MassDOT, adjoining property and business owners	
	Establish a palette of artistic street furnishing materials for Brickbottom and Inner Belt, promoting the unique identity of each area.	City, local artists, business and property owners	
	Ensure that reformed zoning provides for engaging street frontage for all new buildings, including multiple doors facing the street.	City	
	Adopt planting standards to ensure that landscaping for streetscapes and private property frontage is designed to encourage walking and sitting.	City	
	Adopt and enforce design standards requiring new parking garages to be wrapped by active buildings.	City	
	Ensure that reformed zoning identifies key street frontage appropriate for loading and delivery, and adopt design and performance standards for new development.	City	



## 1 CREATE GREAT PLACES FOR PEOPLE CONTINUED

ACTION STRATEGY	ACTION DETAILS	AGENTS (LEAD/PARTNER)	
<b>1.4 Make safe, convenient, enjoyable bicycling a signature of the study area</b>	Partner with the MBTA and MassDOT to design and construct the full Somerville Community Path Extension from the Green Line station at Washington Street to the new Lowell Street Station, with connections to local streets.	<b>City, MBTA, MassDOT</b>	
	Partner with the MBTA and MassDOT to ensure that two-way cycle tracks are constructed on Washington Street between Joy and New Washington Streets when the Green Line station is built.	<b>City, MBTA, MassDOT</b>	
	Prioritize separated bicycle facilities on all road reconstruction projects.	<b>City, MassDOT</b> (as applicable)	
	Revise development standards for new commercial buildings to provide bicycle storage and commuter shower facilities.	<b>City</b>	
<b>1.5 Re-balance street space allocation among cars and people</b>	Support MassDOT's Grounding McGrath project, including entering into the environmental process to return the roadway to an at-grade urban thoroughfare.	<b>City, MassDOT</b>	
	Redesign Washington Street from Sullivan Square to McGrath Highway as a Complete Street, to ensure better sharing of space between pedestrians, cyclists, transit riders and drivers. Investigate options to fund implementation, then pursue implementation.	<b>City, MassDOT, City of Boston</b>	
	Investigate funding options to reconstruct Washington Street as a Complete Street.	<b>City, MassDOT, City of Boston</b>	
	Ensure that reformed zoning includes parking maximums for new development.	<b>City</b>	
	Establish parking facilities that will be shared by different uses, eliminating the need for every new development project to provide its own new parking.	<b>City, business and property owners</b>	
<b>1.6 Create 18-hour neighborhoods</b>	Ensure that reformed zoning establishes active ground-floor uses in identified retail clusters, per Master Plan recommendations.	<b>City</b>	
	Ensure that 30% to 40% of new development is residential to ensure activity throughout the day and night and on weekends.	<b>City</b>	



## 2 CONNECT NEIGHBORHOOD TO NEIGHBORHOOD

**Table X: Action Items: Connect neighborhood to neighborhood**

ACTION STRATEGY	ACTION DETAILS	AGENTS (LEAD/PARTNER)	
<b>2.1 Replace the Tubes</b>	Partner with private property owners and the MBTA to secure passage rights to the Third Avenue Extension underneath the Lowell line as a temporary vehicular access for properties south of the Tubes during the planning, design and construction of a bridge structure at Inner Belt Road.	City, MBTA, property owners	
	Work with the MBTA and its commuter rail contractor to plan, finance and construct a bridge structure to replace the Tubes.	City, MBTA, rail contractor	
	Partner with private property owners at 30 and/or 50 Inner Belt Road to secure temporary easements for construction staging on privately-owned parking lots.	City, MBTA, property owners	
<b>2.2 Connect Inner Belt and Brickbottom</b>	Partner with the MBTA and MassDOT to create at least one safe, convenient walking connection between Inner Belt South and Brickbottom as part of Green Line and Community Path installation. Ensure the elevated Community Path is built to accommodate potential connections to future adjacent buildings and/or open spaces. <i>See also action 4.2.</i>	City, MBTA, MassDOT	
	Work with property owners flanking the Green Line and the MBTA to encourage installation of accessible pedestrian bridge(s) over the Green Line connecting Inner belt and Brickbottom streets. <i>See also action 4.2.</i>	City, MBTA, MassDOT, property owners	
<b>2.3 Connect Inner Belt and Brickbottom to East Somerville</b>	Redesign Washington Street to include safer pedestrian crossings, wider sidewalks, protected cycletracks, and on-street parking.	City, MBTA, MassDOT, property owners	
	Partner with the MBTA and MassDOT to design and construct the full Somerville Community Path Extension from the Green Line station at Washington Street to the Cross Street bridge.	City, MBTA, MassDOT	
	Ensure that reformed zoning encourages adaptive re-use and selective, appropriately-scaled redevelopment on the north side of Washington Street, with active, pedestrian-oriented uses on the ground floor.	City, property owners	
	Ensure that reformed zoning encourages consistent building frontage on the south side of Washington Street to create a more walkable street edge.	City, property owners	
	Establish strategies to improve connections between Washington Street and Broadway for pedestrians, cyclists, and in limited circumstances, drivers as part of a neighborhood plan for East Somerville.	City	
<b>2.4 Connect Inner Belt to Cambridge</b>	Design a bridge structure that connects Inner Belt Road to North Point.	City, MBTA, MassDOT	
	Explore financing options to build an Inner Belt-North Point bridge. Work with the City of Cambridge to explore a bridge design that allows full vehicular use of the Inner Belt / North Point bridge. Design the bridge structure in partnership with the City of Cambridge, the MBTA and adjoining property owners. Take further actions as needed to foster bridge construction. <i>See also action 4.2.</i>	City, MBTA, MassDOT, adjoining property owners	
	Establish a Transportation Management Association to provide transit services connecting employment centers at Assembly Square, Sullivan Square, Inner Belt, North Point and Kendall Square, or in the alternative, seek public support for this service in coordination with Urban Ring implementation.	City, property and business owners, MassDOT, MBTA, Cities of Boston and Cambridge, institutions and/or other interested partners	
	Work with the City of Cambridge to explore a bridge design that allows full vehicular use of the Inner Belt / North Point bridge.	City, City of Cambridge	



ACTION STRATEGY	ACTION DETAILS	AGENTS (LEAD/PARTNER)	
<b>2.5 Connect Inner Belt to Boston</b>	Coordinate with the City of Boston and private property owners to plan for the extension of Roland Street to Inner Belt Road as new development occurs.	<b>City</b> , property and business owners City of Boston	
	Work with the MBTA to explore potential longer-term relocation of rail yard space east of Inner Belt Road, to enable extension of New Washington Street and additional development opportunities.	<b>City</b> , MBTA	

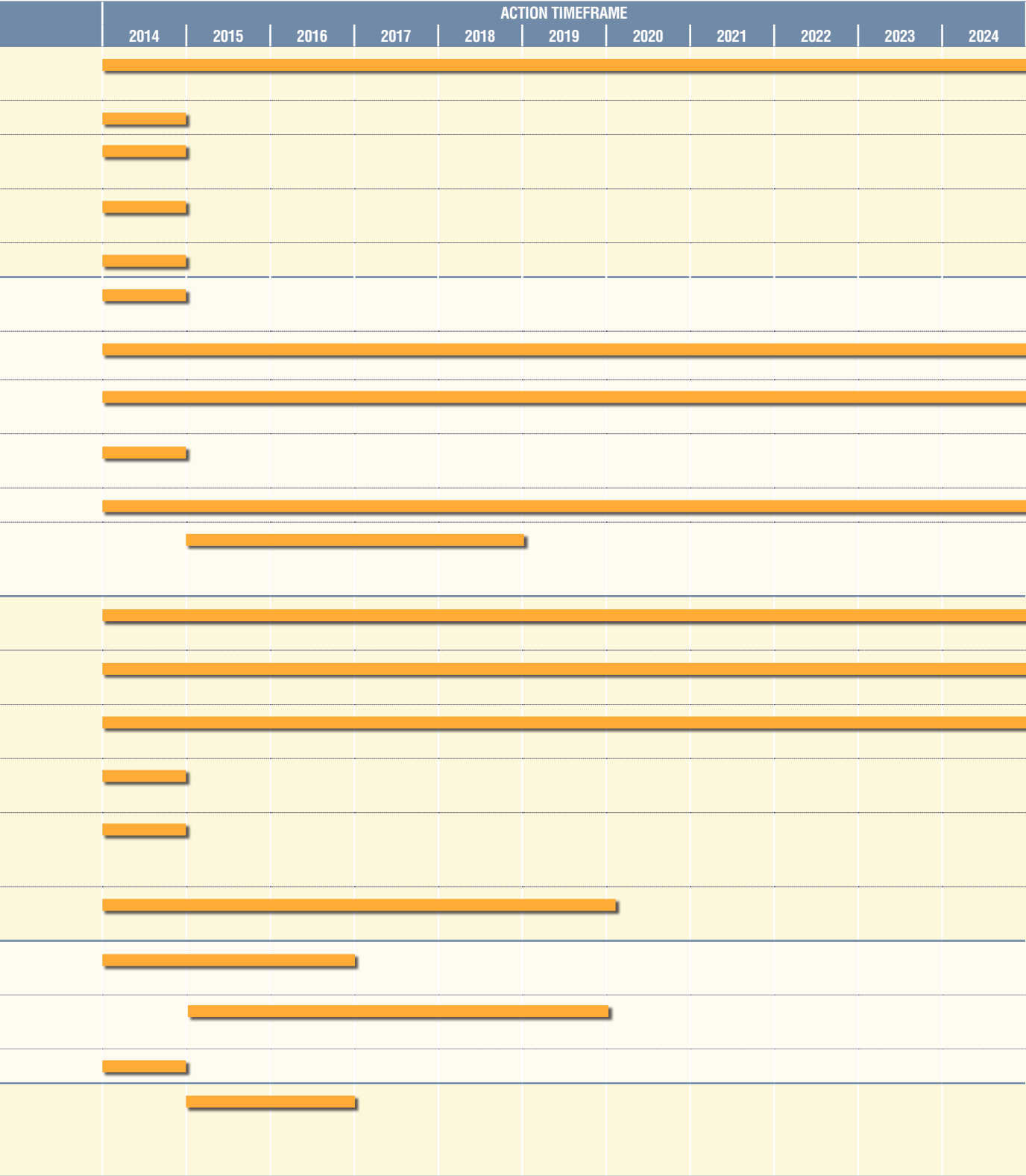
	ACTION TIMEFRAME											
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
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### 3 GROW THE ECONOMY

**Table X: Action Items: Grow the economy**

ACTION STRATEGY	ACTION DETAILS	AGENTS (LEAD/PARTNER)	
<b>3.1 Make commercial development easy</b>	Ensure that between 60% and 70% of new square footage developed in Inner Belt and Brickbottom is commercial.	City	
	Organize zoning regulations around building types.	City	
	Prepare zoning regulations that include by-right entitlements for multi-story commercial building types with design review.	City	
	Ensure that reformed zoning provides incentives for neighboring property owners to prepare shared development plans that maximize development potential.	City	
	Overhaul Somerville's sign code to streamline review and ensure high-quality design.	City	
<b>3.2 Ensure that Inner Belt and Brickbottom are great Somerville neighborhoods</b>	Ensure that reformed zoning includes regulations enabling fabrication and light manufacturing uses.	City	
	Protect the viability of walkable, transit-centered artist live-work space at 1 Fitchburg Street.	City, property owner	
	Partner with the private owner of Joy Street Studios to preserve and expand the affordable studio and light manufacturing space that supports Somerville's creative economy.	City, property owner	
	Ensure that reformed zoning encourages multiple, small gallery spaces and performing arts venues to be built in Brickbottom.	City	
	Ensure that public art is located throughout Inner Belt and Brickbottom.	City, local artists	
	Partner with the MBTA and private rail operators to create a pilot project that cleans up the Yard 10 Lead track and boxcar at Cobble Hill Road to create an attractive, branded gateway for New Washington Street, with enhanced public open space and streetscape opportunities.	City, MBTA, Pan Am Railways	
<b>3.3 Support new job creation</b>	Ensure, through zoning and project design review, that old and new buildings can co-exist as development occurs in Inner Belt and Brickbottom.	City, property owners, developers	
	Support adaptive re-use of existing commercial buildings to achieve increased job density.	City, property and business owners	
	Through zoning and economic development policies, encourage a diverse mix of job types in Inner Belt and Brickbottom.	City, Somerville Chamber of Commerce	
	Ensure that new zoning regulations allow building types that meet a range of space needs and price points.	City	
	Ensure that reformed zoning in Inner Belt establishes the opportunity to place large floorplate buildings in appropriate locations, thereby positioning the district to meet a unique need in the regional commercial real estate market.	City	
	Coordinate with private property owners of outdoor vehicle storage and equipment storage sites to plan to transition these sites into more job-dense uses.	City, property and business owners	
<b>3.4 Develop our local workforce</b>	Publicize existing partnerships and programs offering job training.	City, workforce training partners	
	Expand workforce development efforts.	City, workforce training partners	
	Ensure that reformed zoning includes a predictable jobs linkage mechanism.	City	
<b>3.5 Empower a business management organization</b>	Explore establishment of a new entity empowered to support business recruitment efforts, perform marketing and branding services, maintain public and private civic spaces, oversee cultural programming, and manage parking and shuttle services.	City, Somerville Chamber of Commerce and/or other business partners	



## 4 COORDINATE PUBLIC INVESTMENT WITH PRIVATE INVESTMENT

**Table X: Action Items: Coordinate public investment with private investment**

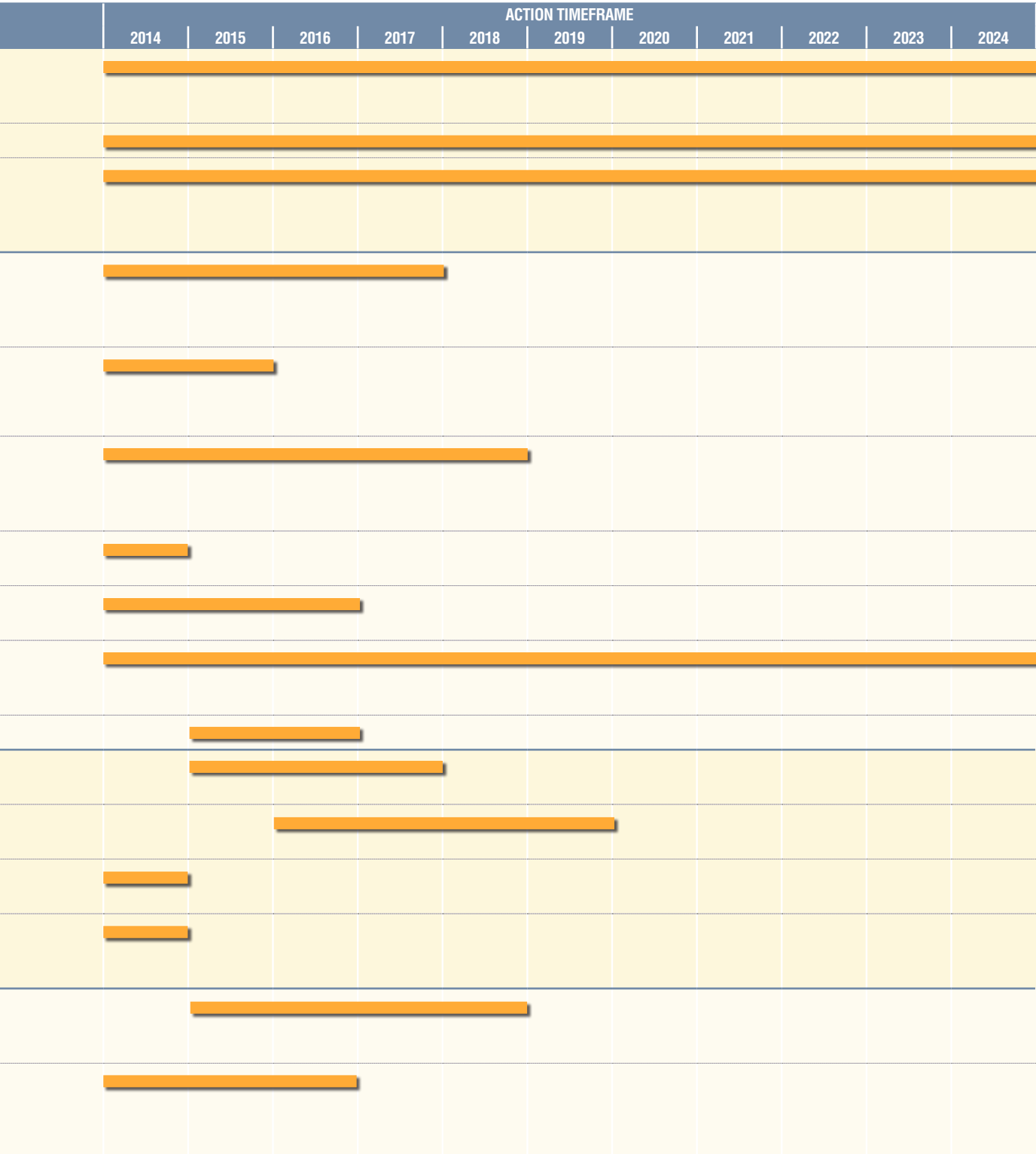
ACTION STRATEGY	ACTION DETAILS	AGENTS (LEAD/PARTNER)	
<b>4.1 Create and expand street grids</b>	Ensure that reformed zoning includes street standards for front streets, side streets and back streets that include definitions, dimensional characteristics and performance standards.	<b>City</b>	
	Ensure that reformed zoning establishes a minimum land area dedicated as street or as civic space.	<b>City</b>	
	Ensure that reformed zoning provides incentives unlocking additional development capacity for owners who dedicate essential streets.	<b>City</b>	
	Require or incent property owners to connect Joy Street to Linwood Street with at least one new side street and one new back street as development occurs	<b>City, property owners</b>	
	Require or incent property owners to connect Chestnut Street to Linwood Street with at least one new side street and one new back street as development occurs	<b>City, property owners</b>	
	Require or incent property owners to create a new east-west internal street in the vicinity of First Avenue as development occurs.	<b>City, property owners</b>	
	Require or incent property owners to create a new east-west internal street west of Inner Belt Road and south of the Tubes as development occurs.	<b>City, property owners</b>	
<b>4.2 Capture the value of transit</b>	Partner with the MBTA and MassDOT to design and construct tie-in points for future privately-funded access onto the Community Path, specifically where necessary to connect the Inner Belt South sub-area to the Green Line station.	<b>City, MBTA, MassDOT, adjoining property owners</b>	
	Encourage the private owners of 150 Inner Belt Road to construct an access point onto the Community Path when the site is developed.	<b>City, property owner</b>	
	Encourage the private owners of 20 Chestnut Street to construct an access point onto the Community Path when the site is redeveloped.	<b>City, property owner</b>	
	Partner with the MBTA to release MBTA property not needed for right-of-way near the Washington Street Station for sale and redevelopment. Issue a Request for Proposals with development standards consistent with this Master Plan.	<b>City, MBTA</b>	
	Explore District Improvement Financing (DIF) as a tool to fund needed sewer and stormwater improvements.	<b>City</b>	
	Explore federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loan funding to support construction of the Inner Belt—North Point bridge, leveraging Urban Ring transit corridor opportunity. <i>See also action 2.4.</i>	<b>City, MassDOT, City of Cambridge, private sector partners</b>	
	Partner with the MBTA and MassDOT to prepare the Mystic Yard facility along New Washington Street for more valuable transit-oriented development	<b>City, MBTA, MassDOT, adjoining property owners</b>	
<b>4.3 Plan regionally</b>	Collaborate with the City of Boston and MBTA to create high-quality, walkable transit-oriented redevelopment around Sullivan Square complementing Inner Belt-Brickbottom goals	<b>City, City of Boston, MBTA</b>	
	Collaborate with the City of Cambridge on the North Point master development and transportation links.	<b>City, City of Cambridge</b>	
	Collaborate with the City of Cambridge and private sector/institutions to ensure the high-cost life sciences and technology industries in Kendall Square have access to lower-cost back office and manufacturing space in Inner Belt and Brickbottom.	<b>City, City of Cambridge, private sector and institutions</b>	
	Advocate with state and regional agencies to ensure that limited roadway systems capacity is used judiciously to support sustainable regional economic growth.	<b>City, MAPC, MassDOT, MBTA</b>	



## 5 DELIVER ONGOING VALUE WITH SUSTAINABLE DEVELOPMENT APPROACHES

**Table X: Action Items: Deliver ongoing value with sustainable development approaches**

ACTION STRATEGY	ACTION DETAILS	AGENTS (LEAD/PARTNER)	
<b>5.1 Pursue sustainable development practices</b>	Encourage new development to meet or exceed LEED Silver standards or equivalent. In general, encourage construction techniques that are resource- and energy-efficient, minimize detrimental environmental impacts, and promote public health.	<b>City, property owners, developers</b>	
	Encourage transit-oriented development and design.	<b>City</b>	
	Highlight sustainable development and design achievements in marketing and branding for Inner Belt and Brickbottom	<b>City, Somerville Chamber of Commerce and/or other business partners</b>	
<b>5.2 Manage stormwater efficiently and effectively</b>	Ensure that the MBTA and MassDOT construct high-capacity stormwater infrastructure with the Green Line Extension, including the Washington Street Pump Station, the Green Line detention cistern, the Red Bridge detention pond, and Maintenance Facility site improvements as needed.	<b>City, MBTA, MassDOT</b>	
	Partner with the MBTA and MWRA to perform drainage capacity modelling, and improve infrastructure as needed, to ensure that the Inner Belt and Brickbottom districts can support the buildout of transit-oriented development called for in the SomerVision Comprehensive Plan.	<b>City, MBTA, MWRA</b>	
	Ensure that responsible parties resolve issues related to the blocked Old Stone Culvert at the Boston Engine Terminal, and convey all upstream flows out of the Inner Belt district via the MWRA sewer at Roland Street or the MBTA Fitchburg main drain. Coordinate with Green Line Maintenance Facility design and construction.	<b>City, MBTA, MWRA, other partners as needed</b>	
	Reform zoning to include performance standards for on-site stormwater retention for new buildings, and opportunity for district-scale stormwater management.	<b>City</b>	
	Develop incentive programs to promote retrofitting of existing buildings for better stormwater performance, including rooftop storage.	<b>City</b>	
	Design and build new civic spaces that increase stormwater retention in the district (potentially serving district-scale needs) while also providing amenities with aesthetic and/or recreational value.	<b>City, property owners, developers</b>	
	Explore creation of a Citywide stormwater enterprise fund.	<b>City</b>	
<b>5.3 Promote choice in housing</b>	Partner with the private owner of the Cobble Hill Apartments to extend affordability provisions in perpetuity.	<b>City, property owner</b>	
	Partner with the private owner of the Cobble Hill Apartments to extend affordability provisions in perpetuity.	<b>City, property owner</b>	
	Ensure that new zoning regulations allow multiple residential building types, including townhouse buildings and vertical apartment towers	<b>City</b>	
	Revise the City's Inclusionary Housing Ordinance to require either a greater percentage of affordable units in new residential development projects, or a greater number of family-sized units.	<b>City</b>	
<b>5.4 Manage transportation demand</b>	Create a Transportation Management Association empowered to manage parking resources, including access coordination, hours of operation, pricing, security, lighting, advertising, maintenance and insurance.	<b>City, property and business owners</b>	
	Partner with the MBTA, MassDOT, other agencies and private sector partners to develop a business plan for high quality transit service to connect Sullivan Square to Kendall Square and beyond via a new Inner Belt—North Point bridge. Coordinate with Urban Ring transit corridor planning to date.	<b>City, MassDOT, MBTA, private sector/institution partners, Cities of Boston and Cambridge</b>	





**PHASE II COMPREHENSIVE SITE  
ASSESSMENT, PHASE III  
IDENTIFICATION, EVALUATION AND  
SELECTION OF COMPREHENSIVE  
REMEDIAL ACTION ALTERNATIVES AND  
TEMPORARY SOLUTION STATEMENT**

**90 WASHINGTON STREET**

**RTN 3-31102**

**SOMERVILLE, MASSACHUSETTS**

**SEPTEMBER 12, 2018**

Prepared For:

Department of Environmental Protection  
Northeast Regional Office  
205B Lowell Street  
Wilmington, MA 01887

On Behalf Of:

Cobble Hill Apartments Company  
150 Mount Vernon  
Boston, MA 02125

2269 Massachusetts Avenue  
Cambridge, MA 02140  
www.mcphailgeo.com  
(617) 868-1420

**PROJECT NO. 5471.9.00**



September 12, 2018

Department of Environmental Protection  
Northeast Regional Office  
205B Lowell Street  
Wilmington, MA 01887

Attention: Bureau of Waste Site Cleanup

Reference: 90 Washington Street, Somerville Massachusetts  
Phase II Comprehensive Site Assessment, Phase III Identification, Evaluation  
and Selection of Comprehensive Remedial Action Alternatives and Temporary  
Solution Statement RTN 3-31102

Enclosed herewith is a Phase II Comprehensive Site Assessment, Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives and Temporary Solution Statement for the Massachusetts Contingency Plan (MCP) site listed under Release Tracking Number (RTN) 3-31102, which is associated with reportable concentrations of PCBs, extractable petroleum hydrocarbons (EPH), semi-volatile organic compounds (SVOCs) and Volatile Organic Compounds (VOCs) at 90 Washington Street, Somerville, Massachusetts. Refer to the Project Location Plan, **Figure 1**, for the general site location. These services are subject to the limitations contained in **Appendix A**.

The subject site consists of land totaling approximately 185,000 square feet that currently contains a single one-story L-shaped 13,500 square-foot vacant shopping plaza building surrounded by an asphalt parking area and landscaping. The subject site is currently vacant and fenced off from the general public. However, the eastern portion of the subject MCP release site is an active paved parking lot for 84 Washington Street and landscaping.

Historic subject site operations included an iron foundry and oil company between 1930 and 1975. The subject site was described as undeveloped between 1975 and 1982. From 1982 to present day the subject site was developed as a shopping plaza with several retail units and associated parking. Currently (and since at least 2014), the shopping plaza is vacant and fenced off from public access. However, a small portion of the subject site is an active paved parking lot. The Phase I Report indicated areas surrounding the subject site were developed for residential, retail and industrial operations.

During May 2012 due diligence site investigations/assessments were completed by EBI Consulting (EBI) of Burlington, Massachusetts. That work included the advancement of borings, installation of groundwater monitoring wells and sampling and analysis of soil and groundwater. The result of that analysis identified the presence of acenaphthylene, naphthalene, 2-methylnaphthalene, C9-C18 aliphatics and C11-C22 aromatics in soil at concentrations greater than the applicable Reportable Concentrations (RCS-1). Pursuant to the MCP, this condition was reported to the MassDEP as a 120-day reporting condition on September 13, 2012 by Cobble Hill Center, LLC, to which the MassDEP assigned Release Tracking Number (RTN) 3-31102.





A Phase I Initial Site Investigation and Tier II Classification was submitted by EBI Consultants of Wilmington, Massachusetts on September 12, 2013 to the DEP on behalf of Cobble Hill Apartments Company.

EBI completed a Soil Characterization Report relative to the subject site, dated April 9, 2014, summarizing in-situ pre-characterization soil explorations at the subject site for export of displaced material for historically proposed subject site re-development (not completed). These explorations consisted of the installation of 18 soil test borings.

Soil pre-characterization analytical results indicated the detection of additional COCs; including, VOCs (chlorobenzene and 1,4-dichlorobenzene), SVOCs (2,4-dinitrotoluene, and 1,4 dichlorobenzenes), and PCBs at concentrations exceeding the current applicable Method 1 Risk Based Clean-up standards. EBI also completed an additional supplemental pre-characterization exploration consisting of 8 soil test borings completed during May 2014. McPhail was provided with analytical laboratory reports and sample location plan in regards to this investigation. During these pre-characterization explorations several COCs were identified including PCBs, chlorobenzene, 1,4-dichlorobenzene with detected concentrations exceeding Method 1 clean-up standards.

With respect to the above-noted constituents, we note that the entire property, consisting of a 224-unit senior housing complex and a one story retail complex known as Cobble Hill Center, was owned by Cobble Hill Apartments Company. In 2012, hazardous materials were found at the site and reported to DEP. In 2013, the property was subdivided, with Cobble Hill Apartments Company continuing to own the portion with the 224-unit senior housing complex and Cobble Hill Center, LLC becoming the owner of the portion containing the retail complex. Tenants soon thereafter vacated the retail complex in anticipation of redevelopment of the Cobble Hill Center site into a 157-unit apartment complex. Pre-development characterization work was completed in 2014 by EBI Consultants.

In October 2013, the Somerville Zoning Board of Appeals granted approval for the proposed 157-unit apartment complex. During July 2014, a shareholder in Cobble Hill Center LLC filed a lawsuit, causing the development plans to be put on hold; that litigation is on-going. The Cobble Hill Center site has been vacant since 2014.

In reviewing the available historic soil and groundwater data on behalf of Cobble Hill Center LLC, McPhail identified the exceedences of the compounds noted above, namely chlorobenzene, 1,4-dichlorobenzene, SVOCs (2,4-dinitrotoluene and 1,4 dichlorobenzene), and PCBs. These additional compounds are considered contaminants of concern in soil at the MCP site and thus have been addressed in this report as such. A BWSC126 is being filed with the DEP concurrently with this submittal documenting the compounds and concentrations that require notification. A Tier II Transfer is planned within the near future to transfer responsibility for performing response actions at this site from Cobble Hill Apartments Company to Cobble Hill Center LLC.

More recently, McPhail completed additional assessment-only activities at the subject site during August of 2018 to collect additional analytical data to complete the subject site's Conceptual Site Model.



Current subject site conditions do not pose an Imminent Hazard, Critical Exposure Pathway or a Condition of Substantial Release Migration, as defined in the MCP.

The results of historic and more recent sampling and testing of groundwater at the MCP site did not identify the presence of the COCs in soil at concentrations that exceed the applicable RCGW-2 Reportable Concentrations. Hence, the release at the MCP site is limited to soil.

The source of the contamination is considered the historic use of the site and nature of the fill. There are no known ongoing or uncontrolled sources present at the site. Further, the results of the historic and recent soil and groundwater testing demonstrate that the extent of the release is limited to soil within the boundaries of the property and there was no evidence identified that contamination has migrated off-site. In accordance with Section 40.0836 of the MCP, Phase II is considered complete. The comprehensive site assessment does not disclose new or additional information which would affect the disposal site's Tier Classification.

Phase III evaluation of Remedial Alternatives determined that excavation and export of contaminated soil is the best alternative to achieve or approach background conditions at the subject site in order to reach a Permanent Solution. However, plans for redevelopment of the site are on indefinite hold due to the ongoing litigation and the unresolved dispute between the Principals and it is considered not feasible to implement remedial measures at this time.

As stated above and described in the text of this Report, the majority of the site is a surrounded by a secured chain link fence. The retail building at the site is unoccupied and vacant. Therefore, for the fenced-in and vacant portion of the MCP release site, in accordance with Section 40.0956(1)(c) of the MCP, a quantitative evaluation of human health risk is not required given that there is no current exposure to oil and/or hazardous material at the disposal site. Accordingly, a Substantial Hazard does not exist for that portion of the MCP site. However, for the eastern portion of the MCP site located outside the fenced in area (paved parking lot with landscaped areas) a Substantial Hazard Evaluation was completed. As shown in the Method 3 Shortforms for Human Health Risk assessment, a Substantial Hazard does not exist at the eastern, un-fenced portion of the site. Further, given that the release is limited to soil and has not migrated off-site, and that no wetlands, aquatic or terrestrial habitats, or fisheries exist at the MCP site, a Substantial Hazard to Environmental Receptors does not exist at the MCP site.

Therefore, a Temporary Solution has been achieved for the MCP site to which RTN 3-31102 applies, pursuant to Section 40.1050 of the MCP. An Activity and Use Limitation (AUL) is not required to maintain a condition of No Substantial Hazard. As documented in the Phase III Section of this Report, the selected remedial option for this site is excavation and off-site reuse, recycling, and/or disposal of contaminated soil. Plans for redevelopment of the site are on indefinite hold due to the ongoing litigation and the unresolved dispute between the Principals and it is considered not feasible to implement remedial measures at this time to achieve a Permanent Solution. It is anticipated that once litigation over the land is settled,



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remediation will move forward under a Phase IV Remedy Implementation Plan prepared and filed with DEP prior to or concurrently with future redevelopment of the site.

We trust that the above is sufficient for your present requirements. Should you have any questions concerning the information presented herein, please do not hesitate to call us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

A handwritten signature in blue ink, appearing to read "Mike Bradley".

Mike Bradley

A handwritten signature in blue ink, appearing to read "Joseph G. Lombardo Jr.".

Joseph G. Lombardo Jr., L.S.P.

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APPENDIX G: MODIFIED SHORTFORMS FOR SUBSTANTIAL HAZARD EVALUATION



**PURPOSE AND SCOPE** The purpose of this report by McPhail Associates, LLC (McPhail) is to present: (i) an MCP Phase II Comprehensive Site Assessment (CSA); (ii) a Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives and Temporary Solution Statement associated with reportable release conditions relative to MassDEP Release Tracking Number (RTN) 3-31102 relative to the detection of contaminants of concern soil at 90 Washington Street in Somerville, Massachusetts. This Phase II-III Report and Temporary Solution Statement has been prepared in accordance with the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. Refer to the Project Location Plan (**Figure 1**) for the general site locus.

This report was prepared in accordance with the authorization of our client, Cobble Hill Center, LLC. These services are subject to the limitations contained in **Appendix A**.

The MCP investigation was conducted pursuant to the Massachusetts Oil and Hazardous Materials Release Prevention and Response Act (MGL Chapter 21E) and pursuant to the MCP.

**PARTY COMPLETING RESPONSE ACTIONS** A Release Notification Form (RNF) was filed with the DEP by Cobble Hill Apartments Company on September 13, 2012, to which the MassDEP assigned Release Tracking Number (RTN) 3-31102. Cobble Apartments Company Has assumed responsibility for conducting response actions as the Owner as defined in Chapter 21E, pursuant to the provisions of the MCP, 310 CMR 40.0000. The Phase I: Initial Site Investigation and Tier Classification was submitted by EBI Consultants of Wilmington, Massachusetts on September 12, 2013 on behalf of Cobble Hill Center, LLC.

The contact information is as follows:

Cobble Hill Apartments Company  
150 Mount Vernon  
Boston, MA 02125

Attn: John Mostyn, General Counsel (agent for)  
Tel: 617-822-7274

**GENERAL DISPOSAL SITE INFORMATION** Fronting onto Washington Street to the north, the subject site is bounded by New Washington Street to the south and west and 84 Washington Street to the east. 84 Washington Street is occupied



by the Cobble Hill Apartment building. Both 90 and 84 Washington Street are owned by the same entity.

The subject site consists of land totaling approximately 185,000 square feet that currently contains a single one-story L-shaped 13,500 square-foot vacant shopping plaza building surrounded by an asphalt bituminous parking area and landscaping. The subject site is currently vacant and fenced off from the general public. However, the eastern portion of the subject site is an active paved parking lot for 84 Washington Street and landscaping.

The existing site conditions along with the limits of the release areas are shown on the attached Site Exploration Plan (**Figure 2**).

The subject site latitude and longitude are 42° 22.860" N and 71° 5.140" W, the Universal Transverse Mercator (UTM) coordinates are 328,297 meters east and 4,694,192 meters north in Zone 19.

Given current subject site usage of the western portion - vacant and secured with a gated fence - there are no on-site workers present during a given work day and access is restricted. The eastern portion not contained within the fenced in area of the subject site consists of an asphalt pavement parking lot and driveway used by 84 Washington Street and landscaped areas.

Based upon the urban nature of the subject site the residential population within 0.5-miles of the subject site is estimated to be in excess of 1,000 people. Drainage structures (catch basins) were observed contained within the subject site and vicinity.

The area within 500-feet of the subject site is occupied by commercial, residential properties, a railroad maintenance yard and auto repair/filling stations.

Based on the subject site's MassDEP Phase I Site Assessment Map, it is not located within the boundaries of a Sole Source Aquifer, Potentially Productive Aquifer or within a Zone II, Interim Wellhead Protection Area as defined by the Massachusetts Department of Environmental Protection. Four institutions (schools and early childhood center) and three areas of protected opens space are located within in 0.5-miles of the subject site.

No public drinking water supply wells, Areas of Critical Environmental Concern, fish habitats, habitats of Species of Special Concern or Threatened or Endangered Species are located within specified distances of the subject site.



No wetlands are located within 500 feet of the subject site. No areas designated as solid waste sites (landfills) are noted as being located within 1,000-feet of the site. A copy of the Phase 1 Site Assessment Map: 500-feet & 0.5-mile Radii (dated August 29, 2018) is included in **Appendix B**.

## **DISPOSAL SITE HISTORY**

A description of the release site history and remedial response actions completed prior to Tier Classification date is provided in EBI's Phase I: Initial Site Investigation and Tier Classification dated September 12, 2014. Additional assessment activities were completed by EBI Consulting on behalf of Cobble Hill Apartments, some of which is presented in EBI's Soil Characterization Report for 84 and 90 Washington Street, Somerville dated April 9, 2014. Additional assessment information was provided to McPhail in the form of a site plan depicting sample locations and laboratory analytical report and tabulated data for activities completed in May of 2014. McPhail conducted additional assessment activities in August of 2018. Refer to **Figure 2** for sample locations and **Appendix D** for a copy of the analytical laboratory report.

Based on our review of information listed above, subject site operations included an iron foundry and oil company between 1930 and 1975. The subject site was described as undeveloped between 1975 and 1982. From 1982 to present day the subject site was developed as a shopping plaza with several units and parking. Currently (and since at least 2014), the shopping plaza is vacant and fenced off from public access. However, a small portion of the subject site is an active paved parking lot. The Phase I indicated areas surrounding the subject site were developed for residential, retail and industrial operations.

McPhail reviewed available records of Underground Storage Tanks in the vicinity of the subject site through MassDEPs UST Storage Tank Facility Search. A UST (closed in place) is present at the adjacent property to the west (132 Washington Street). This UST was installed in 1966 and closed in place in 1999 with a capacity of 5,000 Gallons and reportedly contained diesel fuel. Two USTs (also closed in place) are present at 91 Washington Street, north and directly across the street from the subject site. These USTs were installed in 1966 and 1971 and closed in place in 1998 with a capacity of 1,500 and 3,000 Gallons and reportedly contained unregulated content and diesel fuel. Other USTs exist or have existed within 0.5 miles of the subject site.





### **Subject Site OHM Use and Storage History**

EBI's Phase I report indicated that a garage and aboveground storage tanks operated by American Oil Products Co occupied the western portion of the subject site on the 1933 to the 1950 Sanborn maps. No other evidence of OHM use or storage was presented relative to subject site operations.

#### *Waste Management History*

No evidence of land or subsurface disposal of waste, nor discharges to surface water or waste water treatment plants, has been found at or on the subject site.

#### *Environmental Permits and Compliance History*

No federal, state or local environmental permits or oil and/or hazardous material storage permits were identified for the subject site.

### **REGULATORY COMPLIANCE**

During May 2012 due diligence site investigations/assessments were completed by EBI Consulting (EBI) of Burlington, Massachusetts. That work included the advancement of borings, installation of groundwater monitoring wells and sampling and analysis of soil and groundwater. The result of that analysis identified the presence of acenaphthylene, naphthalene, 2-methylnaphthalene, C9-C18 aliphatics and C11-C22 aromatics in soil at concentrations greater than the applicable Reportable Concentrations (RCS-1). Pursuant to the MCP, this condition was reported to the MassDEP as a 120-day reporting condition on September 13, 2012 by Cobble Hill Center, LLC, to which the MassDEP assigned Release Tracking Number (RTN) 3-31102.

EBI submitted a Phase I: Initial Site Investigation and Tier II Classification on September 12, 2013, which described initial assessment activities and defined the presumed nature and extent of contamination known as of submittal date. The extent of known soil contamination was defined as being confined to eastern portions of the subject site and no known groundwater contamination was identified. Soil and groundwater samples were analyzed for Volatile Organic Compounds (VOCs), Volatile Petroleum Hydrocarbons (VPH), Extractable Petroleum Hydrocarbons (EPH) and Polycyclic Aromatic Hydrocarbons (PAHs) and Massachusetts 14 Metals. Reportable concentrations of COCs



were detected at soil borings; EB-4 (8-10 feet), EB-5 (10-12 feet), and EB-203B (6-8 feet).

EBI completed a Soil Characterization Report relative to the subject site, dated April 9, 2014, summarizing in-situ pre-characterization soil explorations at the subject site for export of displaced material for historically proposed subject site re-development (not completed). These explorations consisted of the installation of 18 soil test borings ranging from 3 to 15 feet below ground surface and the excavation of eight test pits ranging from 5 to 9 feet below ground surface with the collection of soil samples for laboratory analysis. Samples were submitted for the analysis of VOCs, Semi-Volatile Organic Compounds (SVOCs), PCBs, Total Petroleum Hydrocarbons (TPH), RCRA 8 Metals, pH, conductivity, ignitability, reactivity and Toxicity Characteristic Leaching Procedure (TCLP) for metals. Refer to **Appendix C** for a copy of EBI's relevant soil and groundwater data.

Soil pre-characterization analytical results indicated the detection of additional COCs; including, VOCs (chlorobenzene, 1,4-dichlorobenzene and naphthalene), SVOCs (2,4-dinitrotoluene, 1,4-dichlorobenzene, and naphthalene), and PCBs at concentrations exceeding the current applicable Method 1 Risk Based Clean-up standards.

McPhail also reviewed EBI's supplemental pre-characterization analytical data for 8 soil test borings completed in May 2014. McPhail was only provided with an analytical laboratory report and sample location plan in regards to this investigation. A total of 16 samples collected from 0-2 and 2-4 feet below ground surface were submitted for PCBs, SVOCs and VOCs. PCBs, SVOCs and VOCs were detected at concentrations exceeding S-2/GW-2 and/or S-2/GW-3. Refer to **Appendix D** for a copy of the laboratory analytical report.

During these pre-characterization explorations several COCs were identified including PCBs, chlorobenzene, 1,4-dichlorobenzene with detected concentrations exceeding Method 1 clean-up standards.

With respect to the above-noted constituents, we note that the entire property, consisting of a 224 unit senior housing complex and a one story retail complex known as Cobble Hill Center, was owned by Cobble Hill Apartments Company. In 2012, hazardous materials were found at the site and reported to DEP. In 2013, the property was subdivided, with Cobble Hill Apartments



Company continuing to own the portion with the 224-unit senior housing complex and Cobble Hill Center, LLC becoming the owner of the portion containing the retail complex. Tenants soon thereafter vacated the retail complex in anticipation of redevelopment of the Cobble Hill Center site into a 157-unit apartment complex. Pre-development characterization work was completed in 2014 by EBI Consultants.

In October 2013, the Somerville Zoning Board of Appeals granted approval for the proposed 157-unit apartment complex. During July 2014, a shareholder in Cobble Hill Center LLC filed a lawsuit, causing the development plans to be put on hold; that litigation is on-going. The Cobble Hill Center site has been vacant since 2014.

In reviewing the available historic soil and groundwater data on behalf of Cobble Hill Apartment Company, McPhail identified the exceedences of the compounds noted above, namely chlorobenzene, 1,4-dichlorobenzene, SVOCs (2,4-dinitrotoluene and 1,4 dichlorobenzene), and PCBs. These additional compounds are considered contaminants of concern in soil at the MCP site and thus have been addressed in this report as such. A BWSC126 is being filed with the DEP concurrently with this submittal documenting the compounds and concentrations that require notification. A Tier II Transfer is planned within the near future to transfer responsibility for performing response actions at this site from Cobble Hill Apartments Company to Cobble Hill Center LLC.

The PRP was issued a Notice of Non-Compliance (NON) relative to MCP timeline requirements on March 23, 2018. A Phase II: Comprehensive Site Assessment is required to be submitted to the MassDEP within 3-years of release notification, which occurred on September 13, 2012. The NON provides deadlines for the Phase II, III and IV (unless a Permanent or Temporary Solution Statement is submitted) submittal on September 12, 2018. This also coincides with the MCP timeline requirement for the submittal of the Solution Statement. This report fulfills the timeline and reporting requirements in accordance with the NON.

McPhail completed additional assessment only activities at the subject site in August of 2018 to collect additional analytical data to complete the subject site's Conceptual Site Model. Refer to **Appendix D** for a copy of the laboratory analytical report.

Known subject site conditions (to date) do not pose an Imminent Hazard, Critical Exposure Pathway or a Condition of Substantial Release Migration, as defined in the MCP.



Known subject site conditions (to date) do not pose an Imminent Hazard, Critical Exposure Pathway or a Condition of Substantial Release Migration, as defined in the MCP.

## **CONCEPTUAL SITE MODEL**

The source of COCs identified at the subject site is considered to be from historical subject site operations and/or Historic Fill, as defined in Section 40.0006 of the MCP.

According to EBI's 2013 Phase I: Initial Site Investigation since at least 1930 historical operations of the subject site and vicinity included; residential, retail and industrial operations. The subject site was developed for Iron Works and American Oil Products Company, which was present up until approximately 1975. The subject site remained undeveloped between 1975 to 1982, when it was redeveloped as a commercial shopping plaza.

### Soil

On May 9, 2012 EBI completed soil test borings EB-1 through EB-6 located throughout the subject site. Soil and groundwater samples were collected for metals (EB-5 and EB-6 only), VOCs, volatile petroleum hydrocarbons (VPH) and Extractable Petroleum Hydrocarbons (EPH). Results indicated detections of COCs (naphthalene, 2-methylnaphthalene, C9-C18 aliphatics and C11-C22 aromatics in soil exceeding applicable Method 1 Clean-up Standards at EB-4 (8-10 feet) and EB-5 (10-12 feet). Low concentrations (below applicable RCGW-2 Reportable Concentrations and Method 1 groundwater risk-based clean-up standards for VOCs, VPH and SVOCs were detected in groundwater samples collected from EB-1 and EB-4. Cobble Hill Center, LLC filed a Release Notification Form on September 13, 2012.

EBI returned to the subject site on October 16, 2012 to further assess COCs detected during the initial investigation. Soil test borings EB-202, EB-203A, EB-203B and EB-204 through EB-208 were installed throughout the subject site with samples collected for lab analyses EPH. Results indicated detections of acenaphthylene and C11 to C22 aromatics at concentrations above applicable Method 1 Clean-up standards at EB-203B (6-8 feet).

The September 2013 Phase I: Initial Site Classification and Tier Classification report indicated the following summary of findings;



- Subject site conditions encountered do not constitute an Imminent Hazard or are Immediate Response Actions necessary.
- A release to the soil at the subject site occurred and contaminants of concern (COCs) include; naphthalene, acenaphthylene, 2-methylnaphthalen, C9-C18 aliphatics and C11-C22 aromatics.
- The Phase II scope of work included additional assessment activities.

Following the Phase I, EBI Consulting completed a Soil Characterization Report, dated April 9, 2014, pre-characterizing soil likely to be displaced relative to a historically proposed subject site redevelopment plan. This scope of work included;

- The excavation of seven test pits (TP-01 through TP-07) and twelve soil test borings (EB-301 through EB-312) throughout the subject site in February 2014 and,
- The advancement of four additional soil test borings (EB-401 through EB-406 in March of 2014 to delineate PCB in soil around EB-305.

A total of 24 samples were collected for laboratory analysis for pre-characterization parameters including; VOCs, PCBs, SVOCs, TPH, RCRA 8 Metals, pH, specific conductivity, ignitability, reactivity and Toxicity Characteristic Leaching Procedures (TCLP) for metals. No laboratory samples were submitted for analysis from EB-306 and EB-308, however a strong petroleum odor was noted in the EB-306 (5 to 10 feet below ground surface) boring logs.

Additional COCs, not already identified in the Phase I, including 1,4-dichlorobenzene, chlorobenzene and PCBs exceeded applicable Method 1 Clean-up Standards.

Samples collected from EB-301 (0-4 feet), EB-303 (0-8 feet), EB-307 (11-15 feet), EB-310 (0-4 feet), EB-311 (0-4 feet), TP-01 (7.5-8.5 feet) and TP-04 (6-7 feet) had concentrations of each of the COCs below Method 1 Clean-up Standards.

Elevated concentrations of PCBs above Method 1 Clean-up Standards were detected at below the asphalt pavement at EB-



305 in the 0 to 4-foot sample (48.9 mg/kg) and at EB-311 in the 0 to 4-foot sample (1.14 mg/kg).

VOCs (chlorobenzene and 1,4-dichlorobenzene) were detected in one sample above Method 1 Clean-up Standards from EB-305 (0 to 4 feet). Naphthalene was detected above standards in EB-304 (0-5 feet).

EPH and SVOCs (benzo(a)anthracene, benzo(a)pyrene, 2-methylnaphthalene) were detected in several shallow soil samples throughout the subject site.

To delineate PCB detections, EBI collected an additional eight shallow samples for laboratory analysis of PCBs from EB-401 through EB-406 in the vicinity of EB-305, which is located in the central portion of the subject site. Five soil samples were collected between 1 and 4 feet below ground surface to delineate horizontal extent of PCB contamination detected at EB-305. Three samples were collected to determine vertical limits of PCBs and were collected from approximately 4 to 8 feet below ground surface. Three of five shallow soil samples had concentrations of PCBs exceeding Method 1 Clean-up Standards, however PCBs were not detected above laboratory detection limits in the samples collected from depths greater than 4 feet below ground surface.

McPhail was provided with laboratory analytical data and sample locations of a subsequent EBI subsurface investigation. Eight soil test borings (EB-501 through EB-509) were completed on May 7, 2014 throughout the subject site. Two samples from each boring was submitted for laboratory analysis (0-2 feet and 2-4 feet) for PCB and/or SVOC analysis. No PCBs were detected exceeding applicable MassDEP Method 1 Clean-up Standards. A SVOC (benzo(a)pyrene) was detected exceeding S2/GW2 and S2/GW3 in three samples (EB-204 (2-4 feet) and EB-205 (0-2 and 2-4 feet)). However, the presence of benzo(a)pyrene is considered to be related to the nature of the urban fill soil containing ash and cinders and is considered exempt from notification of the DEP as a release condition.

In August 2018, McPhail completed additional subsurface investigations to further delineate the extent of PCB contamination and to assess potential petroleum contamination as indicated by field screening data. On August 22, 2018, test borings B-603 through B-609 and B-611 were completed at the subject property. Due to sub-surface utility interference B-601, B-602 and B-610 were not completed. Borings were advanced throughout the



subject site to define the extent of PCB impacted soils. B-608 was completed as a groundwater monitoring well and is located adjacent to EB-305.

McPhail personnel provided sub-surface exploration oversight. McPhail completed field layout of borings, prepared field logs, visually classified soil samples, completed headspace screening, monitored groundwater conditions, and directed installation of groundwater monitoring wells. Car-dee completed drilling activities for drilling and monitoring well installation.

The borings were completed via direct-push drilling methodologies using a track-mounted drill-rig with continuous sampling in 5-foot intervals, each of which were headspace screened with a Photoionization Detector equipped with a 10.6 eV lamp (PID) for Total Volatile Organic Compounds (TVOC). TVOC concentrations ranged from 0.0 to 621 ppm. The maximum TVOC concentration was detected at B-608 (12.5-15 feet) and was associated with a petroleum odor.

Locations of borings are on the Subsurface Exploration Plan, **Figure 2** and **Appendix E** for additional details on McPhail Boring Logs. EBI boring logs are included in the Phase I available via MassDEP electronic depository and the data and summary tables in **Appendix C**. Refer to **Tables 1 and 4** for a summary of soil analytical data, and **Table 3** for a summary of McPhail PID headspace readings.

#### Groundwater

Groundwater sampling, completed by EBI on May 9, 2012, detected low concentrations (below applicable RCGW-2 Reportable Concentrations and Method 1 groundwater clean-up standards (GW-2 and GW-3) for VOCs, VPH and SVOCs in groundwater samples collected from EB-1 and EB-4.

Groundwater samples, were more recently obtained by McPhail on August 27, 2018, 2012, from subject property groundwater monitoring wells B-2 (OW) and B-608 (OW). The samples were submitted for analysis for the presence of EPH, PCBs and VPH. No PCBs were detected above laboratory detection limits (set well below applicable RCGW-2 and Method 1 standards). The presence of EPH and VPH was reported as below the laboratory method detection limits and/or below the applicable RCGW-2 and Method 1 standards. Refer to **Tables 2 and 5** for a summary of groundwater analytical data.



As previously documented herein, a reportable release to groundwater has not been identified at the RTN 3-31102 MCP site.

The source of contaminants are considered to be historical site operations and/or historic fill material. Horizontal and vertical extent of soil contamination at the subject site is defined below:

- PCBs – PCB contamination exceeding Method 1 Clean-up Standards was first detected beneath the asphalt pavement at EB-305 (0-4 feet) at 48.9 mg/kg. EBI delineated this PCB detection and determined PCB contaminated soil with concentrations exceeding S2/GW2 and S2/GW3 at EB-402 (1-3.5 feet) and EB-406 (1-3.5 feet), which are approximately 15 feet to the east and south EB-305, respectively. Samples collected from surrounding soil test borings (EB-401, EB-403, EB-405, and B-607 to the west; EB-404 and EB-501 to the south; EB-502 to the north) did not indicate concentrations of PCBs exceeding S2/GW2 and S2/GW3. The vacant subject site building is abutting this area to the east, however soil test borings on the eastern side of the site building (B-506 and B-605) did not indicate concentrations of PCBs exceeding applicable Method 1 Clean-up standards. Sample B-608 (5-7 feet), which was obtained from boring B-608 installed in the vicinity of EB-305, EB-402 and EB-406, exhibited a PCB concentration of 0.16 mg/kg which is well below the applicable Method 1 Clean-up Standards standards, defining vertical extent of PCB contamination in this area.
- VOCs, EPH and SVOCs – VOCs, EPH and SVOCs exceeding Method 1 Clean-up standards were detected in several shallow soil samples collected beneath the soil berm located at the eastern portion of the site, as well as beneath the paved parking area to south and west of the vacant subject site building. Impacted material is confined to the fill deposit, which contains urban fill material (coal, ash, wood, concrete) with the exception of EB-5 (10-12 feet) where naphthalene was detected at 46.1 mg/kg. In regards to this sample, we note that the above referenced concentration was detected as part of the VPH analysis. However, analysis of the same sample for EPH with PAH target analytes and VOCs did not detect concentrations of naphthalene above the applicable Method 1 standards. Further, there was no elevated soil





jar headspace readings noted by EBI on the boring log for EB-5 during their investigation. Vertical extent of SVOC and VOC impacted soils are limited to fill material deposits.

As documented herein, under current site use, a Substantial Hazard does not exist at the subject MCP site. However, a Condition of No Significant Risk does not currently exist at the site. It is anticipated that the most economical remediation alternative to achieve a Permanent Solution at this MCP site is to excavate and remove affected fill. A Temporary Solution has been achieved at the RTN 3-31102 MCP site based upon the nature and extent of contamination and current site use, however achieving a Permanent Solution is not considered feasible at this time. Remediation will be implemented at this MCP site concurrently with the future redevelopment of the site, pending the closure of the ongoing litigation as described herein.

#### **SITE HYDRO- GEOLOGICAL CONDITIONS**

Several phases of subsurface exploration programs have been conducted by EBI and McPhail at the subject site. The completed explorations include the following:

- From October 15 through October 25, 2012, twelve geotechnical soil test borings (B-1 through B-12) were completed at the subject site by Car-Dee Corporation of Medford, Massachusetts under contract to McPhail Associates, LLC.
- On May 9, 2012, six soil test borings (EB-1 through EB-6) were completed at the subject site by J. Masterson Construction Corporation of Danvers, Massachusetts under contract to EBI Consulting.
- On October 16, 2012, seven soil test borings (EB-202 through EB-208) were completed at the subject site by Harvey Associates under contract to EBI Consulting.
- On February 18, 2014, twelve soil test borings (EB-301 through EB-312) were completed at the subject site by Bronson Drilling of Winchester, Massachusetts under contract to EBI Consulting.
- On February 19, 2014 eight, soil test pits (TP-1 through TP-8) were excavated at the subject site by J. Masterson



Construction Corporation of Danvers, Massachusetts under contract to EBI Consulting.

- On March 26, 2014, six soil test borings (EB-401 through EB-406) were advanced at the subject site by Bronson Drilling of Winchester, Massachusetts under contract to EBI Consulting.
- On May 7, 2014, eight soil test borings (EB-501 through EB-508) were advanced at the subject site by Harvey Associates under contract to EBI Consulting.
- On August 22, 2018, nine soil test borings (B-603 through B-609 and B-611) were advanced at the subject site by Car-Dee Corporation of Bedford, Massachusetts.

Approximate exploration locations are indicated on the enclosed Site Plan, **Figure 2**.

### **Soil Geology and Groundwater Flow Direction**

Based on the information obtained from the subsurface explorations completed at the subject site, the following generalized subsurface conditions were encountered from ground surface downward.

The surface is underlain by a 6 to 13-foot fill deposit, where anthropogenic fill material was observed, consisting of coal, ash, brick and concrete. The fill was generally observed to range from a loose to dense, light brown to dark brown or black sand and/or gravel with trace silt.

Natural marine sand or clay was encountered underlying the fill material across the site.

Based on McPhail Groundwater Monitoring Reports (**see Appendix H**) on October 31, 2012 groundwater elevation ranged from +6.1 feet to +9.3 feet at B-11 (OW), B-8 (OW) and B-2 (OW), respectively. The apparent groundwater flow direction is approximately to the north-northwest.

### **ENVIRONMENTAL FATE AND TRANSPORT OF OIL**

Affected media at the site included soil and the presence of EPH, SVOCs, VOCs and PCBs in soil. Contaminants of concern detected in soil have not been detected in groundwater above applicable Reportable Concentrations. The environmental fate and transport



**AND/OR HAZARDOUS MATERIALS**

of OHM, including equilibrium partitioning, degradation of the constituent, transport of the constituent by leaching, transport with groundwater, volatilization to the atmosphere and entrainment of surface soils, is determined by the physical and chemical properties of the contaminants, by the environmental transformation processes affecting them, and by the properties of the environmental media through which they migrate.

Mobility and persistence of a contaminant is determined based upon the solubility, the vapor pressure, the octanol-water partition coefficient ( $K_{ow}$ ), the degradation potential and the specific gravity of the contaminant. In accordance with the DEP's Policy #WSC-04-160, "Conducting Feasibility Evaluations Under the MCP," dated July 16, 2004 contaminants are rated as "non-persistent" or "persistent." Chlorobenzene, naphthalene and 2-methylnaphthalene are rated as "non-persistent," and PCBs and 1,4-dichlorobenzene are rated as "persistent." The identified contaminants of concern are of low to moderate mobility.

No contaminants of concern were detected in groundwater exceeding applicable RCGW-2 standards or Method 1 risk-based Clean-up Standards therefore no evidence has been identified to suggest that contamination has or will migrate off the subject site.

**EXPOSURE ASSESSMENT**

The following is an exposure assessment, including the identification and characterization of all potential human and environmental receptors that could be impacted by the identified COCs.

A. Direct Contact

Potential for direct contact exists at the subject site during future development activities that may disturb surface soils.

The subject site is currently vacant and a large portion of the site is securely fenced off from the general public. Sporadic access to the subject site occurs by authorized personnel only. The eastern portion of the subject site is an active paved parking lot for 84 Washington Street. Contamination soil is located beneath pavement, the existent vacant building or generally beneath non-impacted over burden soil. Direct contact with contaminated soil is therefore unlikely. Thus, an exposure scenario that involves direct contact with or incidental ingestion of impacted soil is considered to be incomplete.

Any future remedial activities will be completed under a Phase IV RIP/RAM Plan and site-specific Health and Safety Plan to manage



excavation, handling and off-site export of excavated remediation waste.

**B. Indoor Air**

The subject site and building are currently vacant with no plans for occupancy for the foreseeable future. The potential for vapor intrusion was considered - No contaminants were detected in the groundwater exceeding applicable GW-2 Method 1 Clean-up Standards, which are protective of vapor intrusion and indoor air. Further, none of the COCs identified in soil are located within 30 feet of an occupied building. Therefore, potential effects to indoor air at the subject site and the adjacent buildings are not considered to be likely.

**C. Drinking Water Supplies**

The MCP site is not located in a drinking water resource area, or in an identified aquifer zone. Therefore, this release is not considered likely to affect drinking water supplies.

**D. Surface Waters**

Groundwater contamination was not encountered at the subject site and the nearest surface water body is located over 0.8-mile east-northeast of the subject site. Therefore the release conditions identified at the site are not considered likely to affect surface water.

**PRELIMINARY RISK CHARACTERIZATION**

Pursuant to the provisions of the MCP, a Preliminary Method 1 Risk Characterization is considered appropriate for characterizing current risk to human health, safety and welfare, and to the environment.

The Method 1 Risk Characterization addressed the potential of harm to human health, safety, public welfare and to the environment for current use and foreseeable future site use.

**1. Applicable Soil and Groundwater Category for Risk Characterization**

The MCP establishes the potential for exposure to soil based upon the frequency and intensity of site use, and qualifies each as being either high or low. The frequency of use describes how often a child or adult receptor makes use of, or has access to, the site.



The intensity of use describes the nature of site activities and uses which could potentially result in exposure to contaminants. Further, the accessibility of the soil in terms of depth is also generally considered in conjunction with the frequency and intensity of receptor use.

Given that the subject site is currently vacant and securely fenced off from the general public, human receptors are considered to be adults only at a low frequency and low intensity. Using the Soil Category Matrix – Human Exposure Potential (310 CMR Table 40.933(9)) the subject site soils are evaluated against S-2 soil standards.

Groundwater has not been affected by COCs identified in soil. Groundwater at the site is not located within a current or potential drinking water source area, and therefore Groundwater Category GW-1 does not apply to the site. As a conservative measure, Groundwater Category GW-2 is considered applicable. Further, in accordance with Section 40.0932 of the MCP, groundwater at all disposal sites shall be considered a potential source of discharge to surface water and shall be categorized, at a minimum, as category GW-3. Groundwater Categories GW2 and GW3 apply to the subject site.

## **2. Identification of Contaminants of Concern**

Contaminants of concern identified at the release site include: chlorobenzene, 1,4-chlorobenzene, naphthalene, acenaphthylene, 2-methylnaphthalene, 2,4-dinitrotoluene, C9-C18 aliphatics, C11-C22 aromatics and PCBs.

## **3. Derivation and Evaluation of Exposure Point Concentrations and Evaluation of Hot Spots**

### **a. Soil**

For use in the Method 1 Risk Characterization, the acceptability of the site data for determination of the EPC and determination of the presence of Hot Spots were evaluated utilizing the criteria outlined in 310 CMR 40.0926. These criteria are satisfied when:

1. The arithmetic average is less than or equal to the applicable risk-based concentration;
2. 75 percent of the data points used in the averaging procedure are equal to or less than the applicable risk-based concentration limit; and



3. No data point used in the averaging is one hundred times greater than the applicable standard or risk-based concentration limit.

No Hot spots were identified at the subject site.

The exposure point concentrations (EPCs) for the subject site were determined by averaging the results of analytical testing for COCs. For non-detect results ½ of the detection limit was used in the calculation.

Exposure point concentrations were also calculated for data points in the eastern portion of the subject site – not enclosed within the fence – to provide a conservative exposure assessment for this portion of the subject site.

There were no exceedences of the Upper Concentration Limits (UCLs) for the COCs.

Calculated EPCs concentrations are presented on the enclosed **Table 6**.

#### **b. Groundwater**

Groundwater analytical testing prior to and following site remediation activities did not identify evidence that groundwater has been affected by the COCs identified in soil. Further, no indications of contaminant migration off-site in or on groundwater or surface water was identified.

#### **4. Risk Assessment Results**

Calculated EPCs for the subject site as a whole were conservatively compared to Method 1 S2/GW2 and S2/GW3 standards. No EPCs exceeded Method 1 S2/GW2 and S2/GW3 standards.

Calculated EPCs for the eastern unfenced portion of the subject site were conservatively compared to Method 1 S1/GW2 and S1/GW-3 standards. No EPCs exceeded Method 1 S2/GW2 and S1/GW-3 standards with the exception of naphthalene, 2,4-dinitrotoluene and C9-C18 aliphatics. However, no EPCs exceed the applicable Method 1 S-2 standards.



McPhail completed a Substantial Hazard Evaluation relative to the unfenced portion of the subject site using a modified short form for residential exposure (see **Appendix F**).

As stated above, plans for redevelopment of the site are on indefinite hold due to the ongoing litigation and the unresolved dispute between the Principals and it is considered not feasible to implement remedial measures at this time. As described in the text of this Report, the majority of the site is surrounded by a secured chain link fence. The retail building at the site is unoccupied and vacant. Therefore, for the fenced-in and vacant portion of the MCP release site, in accordance with Section 40.0956(1)(c) of the MCP, a quantitative evaluation of human health risk is not required given that there is no current exposure to oil and/or hazardous material at the disposal site. Accordingly, a Substantial Hazard does not exist for that portion of the MCP site. However, for the eastern portion of the MCP site located outside the fenced in area (paved parking lot with landscaped areas) a Substantial Hazard Evaluation was completed. As shown in the Method 3 Shortforms for Human Health Risk assessment, the cumulative Excess Lifetime Cancer Risk (ELCR) does not exceed 1 in 100,000. Further the non-cancer Hazard Index (HI) does not exceed 1. Therefore, a Substantial Hazard does not exist at the eastern, un-fenced portion of the site.

## **5. Ecological Receptors**

The ecological risk characterization evaluates potential risk to ecological receptors from exposure to contaminants on, or migrating from the site. No environmentally sensitive areas are present at or on the subject site. Hence, ecological risk is considered to be limited to the potential for migration of contaminants from the release site.

Given that groundwater was not affected by a reportable release of the COCs, a Condition of No Significant Risk to ecological receptors is considered to exist at the release site.

## **6. Characterization of Risk to Safety**

In accordance with 310 CMR 40.0960, the risk of harm to safety must be characterized in a risk assessment. MCP site conditions were evaluated with respect to the criteria for safety included in the MCP:



- a. No rusted or corroded drums or containers, open pits, lagoons, or other dangerous structures were observed at the MCP site.
- b. There is no present threat of fire or explosion.
- c. No uncontained material was identified at the MCP site.

Based upon the above, a Condition of No Significant Risk of harm to safety based on current or foreseeable future land use is considered to exist at the MCP site.

## **PHASE II CONCLUSION**

The Phase II Comprehensive Site Assessment conforms with applicable Phase II requirements and meets the Phase II performance standards contained in 310 CMR 40.0000.

In accordance with Section 40.0836 of the MCP, Phase II is considered complete. The comprehensive site assessment does not disclose new or additional information which would affect the disposal site's Tier Classification.

Further, a Phase III study for the identification, evaluation and selection of Comprehensive Remedial Action Alternatives as described in 310 CMR 40.0850 is discussed below.

## **REMEDIAL ALTERNATIVES**

An evaluation of the remedial alternatives was performed in accordance with Section 40.0855 of the MCP.

As indicated in the Phase II portion of this report, elevated concentrations of PCBs, EPH, VOCs and SVOCs are present in soils at the site in concentrations above applicable MCP Method 1 Cleanup Standards.

The removal or treatment of the impacted soils is anticipated to be a remedial alternative, which will achieve a Permanent Solution at the subject site in the future.

Therefore, remedial activities are not feasible at this time. However, once subject site redevelopment is determined it is likely that COCs will be removed from the subject site and managed in accordance with 310 CMR 40.0000.





The remedial goals would be to limit potential on-site exposures associated with the presence of COCs in fill material and achieved a Condition of No Significant Risk at the subject site.

The following methods were included in our initial screening of remedial alternatives for the site:

- Excavation, and off-site recycling/disposal
- Ex-Situ Bioremediation
- In-Situ Bioremediation
- Soil Flushing

#### Excavation and Off-Site Reuse/Recycling/Disposal

In this approach, fill soils will be excavated to depths specified by the yet to be developed plans and export of remediation waste to a pre-approved receiving facility under Bill of Lading (BOL) documents. The soils designated for excavation would be loaded directly onto a truck for immediate transport, or temporarily stockpiled on-site for transport at a later date. Laboratory testing would be performed on the impacted soil, as may be required to satisfy the individual facility requirements and applicable MassDEP policies and requirements.

The advantage of direct excavation of soils is that the desired effect (i.e. remediation of soil and the associated reduction in on-site contaminant concentrations, as well as the removal of any residual source material) is accomplished over a short period of time.

#### Ex-Situ Bioremediation

In ex-situ bioremediation, the excavation of impacted soils is performed as described above; however, the excavated soil is treated on-site with bioremedial agents until the concentrations of contaminants have been sufficiently reduced to achieve site clean-up goals. The treated soils are then returned to the excavation, or transported off-site.

Ex-situ bioremediation was eliminated from our screening process due to the relatively limited site area to perform the farming operation, the long time period generally required to perform the treatment, difficulties in treating persistent contaminants, the potential exposures to possible nearby receptors, and the costs and possible difficulties associated with management, treatment, and re-handling of soils all within the boundaries of the site.



Direct excavation and off-site disposal/recycling is considered to be less costly, more efficient in terms of time and cost and eliminates the uncertainty associated with bioremediation treatment options.

#### In-Situ Bioremediation

With in-situ bioremediation, the impacted soils would be treated in place by injecting bioremedial agents through a number of injection wells. The reagents treat contaminants that are sorbed to soil materials or trapped in pore spaces. The effectiveness of this methodology is dependent on a number of factors including the nature of the relevant contaminants, soil permeability, spacing of injection wells, percent of oxygen and nutrients available in the subsurface, dispersion of agents, and others.

An obvious advantage of in-situ bioremediation is no excavation of soils is required, which minimizes disruption to the site. However, at this site, excavation of the impacted as well as non-impacted soils is necessary as part of the construction of the future proposed building. As a result, significant disadvantages associated with the use of the in-situ bioremediation approach for this site are the amount of time typically required to achieve desired results, the impermeable nature of the soils, its difficulty in treating persistent contaminants, and uncertainty associated with the thoroughness of the treatment.

#### Soil Flushing

Soil flushing is a treatment technology in which an aqueous extraction fluid is passed through the contaminated soils utilizing injection wells or infiltration from the ground surface. The contaminants are flushed from the soil particles and recovered from the groundwater. Often, additives (typically miscible organic solvents such as alcohol) are employed to mobilize contaminants into the groundwater which is then removed. Similar to in-situ bioremediation, a number of factors play a role in the effectiveness of this treatment approach, including the nature of the relevant contaminants, soil permeability and homogeneity, and type of additives employed.

In our opinion, soil flushing is considered to be a risky alternative for this site, since the extracted contaminants must be recovered from extraction wells, treated, and then transported off-site. Contaminants which are flushed from the soils but are not



recovered will enter the groundwater table which may worsen the conditions at the site. In addition, given the recovery and treatment that is required, and regulations regarding the introduction of remedial additives, this option is considered to be more costly and time consuming than direct excavation and off-site disposal/recycling.

### **Selected Remedial Action Alternative**

Therefore, our evaluation of the remedial alternatives for treatment of soils, given the large quantity of soil to be treated and the anticipated scope of excavation for construction of the proposed building with below-grade parking, results in the selection of direct soil excavation and off-site reuse/disposal/recycling as the most desirable alternative.

### **PHASE III REMEDIAL ACTION PLAN & PHASE IV REMEDY IMPLEMENTATION PLAN**

Excavation and off-site disposal of contaminated soil and residual soil during future redevelopment activities at the subject site. Prior to the implementation of the selected remedial alternative, a MCP Phase IV - Remedy Implementation Plan (RIP) report will be prepared in accordance with the provisions contained in Section 40.0870 of the MCP.

### **REPRESENTATIVENESS EVALUATION AND DATA USABILITY**

The representativeness and usability of the data were evaluated in accordance with 310 CMR 40.1056(2)(k) and are discussed below.

#### Sampling and Testing Rationale

Subsurface exploration programs were completed at the Site to assess potential effects to soil and groundwater from historical usage of the Site. Subsequent subsurface exploration programs were performed to further evaluate the presence of contaminants detected in soil and to assess the nature and extent of the identified contamination.

Based on the results of the subsurface exploration programs, the contaminants of concern in subject site soil were determined to be PCBs, EPH, SVOCs and VOCs attributable to historic subject site operations and Historic Fill. Analysis of groundwater samples obtained from observation wells installed at the Site did not identify a release to groundwater of the contaminants of concern that were identified in soil.

#### Number, Spatial Distribution, and Handling of Samples



Soil samples were collected from subsurface explorations located across the Site as shown on **Figures 2**. Sampling locations were distributed across the Site both horizontally and vertically. Samples were submitted for analysis based on observations, as well as to provide broad coverage of soils at the subject site.

To McPhail's knowledge, samples for laboratory testing were placed in laboratory-supplied sample containers appropriate for the analyses to be performed. Samples were placed on ice upon collection until they could be refrigerated, and the samples were transmitted to the laboratory under chain-of-custody protocols.

A field duplicate was not collected because the sampling was targeted toward the affected horizons to give a representative assessment; therefore, an assessment of variability was not considered necessary.

In summary, the number and targeted placement of analyzed samples is considered to be acceptable to support this report and the associated Permanent Solution with Conditions Statement.

#### Temporal Distribution of Samples

Soil samples were obtained during May and October 2012, February, March and May 2014 and August 2018.

Groundwater samples were obtained from monitoring wells on the subject site during May 2012, and August 2018.

As documented herein, concentrations of COCs that remain in soil at the subject site are considered to represent No Significant Risk to human health or the environment.

#### Completeness

Based on the number of data points, the size of the Site, and the range of testing performed, the analytical data is considered sufficiently complete to support this report and the associated Temporary Solution Statement.

#### Inconsistency and Uncertainty

No inconsistent samples were identified. Analytical results were consistent with observations and field screening results. To



McPhail's knowledge, visual observations and field screening were generally well correlated.

#### Information Considered Unrepresentative

To McPhail's knowledge, no information considered to be unrepresentative has been used in the preparation of this report.

#### Data Usability

The laboratory data sheets documented the use of analytical methods that are in accordance with applicable testing requirements. The laboratory reports prepared by Alpha Analytical for McPhail Associates and by New England Accutest Laboratories and Contest Laboratories for EBI contain a narrative that indicates compliance with the Presumptive Certainty status requirements contained in DEP Policy WSC-CAM. In addition, the laboratory narratives did not identify non-compliance with the requirements contained in WSC-CAM. The validity and defensibility of the laboratory test data used in support of this Permanent Solution with Conditions Statement regarding accuracy, precision and completeness are consistent with the requirements of Section 40.1056(2)(k) of the MCP.

In summary, the Site data are considered to be of acceptable accuracy, precision, and sensitivity. The analytical data used to support the Permanent Solution with Conditions Statement were generated pursuant to the Department's Compendium of Analytical Methods (CAM). The validity and defensibility requirements of the analytical data used to support the findings of the Temporary Solution Statement for this site pursuant to 310 CMR 40.1056(2)(k) have therefore been satisfied.

### **TEMPORARY SOLUTION STATEMENT**

A Temporary Solution has been achieved for the MCP site located at 90 Washington Street in Somerville to which RTN 3-31102 applies. As documented herein, the results of a Methods 3 Shortform Substantial Hazard Evaluation document that a Condition of No Substantial Hazard exists for current use of the MCP site. Implementation of an Activity and Use Limitation (AUL) is not required to maintain that condition.

Given that groundwater was not impacted by a reportable release, operation of one or more Active Exposure Pathway Mitigation Measures are not required.



Accordingly, as documented herein, the requirements of the Temporary Solution specified in 310 CMR 40.1000 have been met.

## **SUMMARY AND CONCLUSIONS**

A Release Notification Form (RNF) was filed with the DEP by Cobble Hill Center, LLC on September 13, 2012, to which the MassDEP assigned Release Tracking Number (RTN) 3-31102.

The subject site consists of land totaling approximately 185,000 square feet that currently contains a single one-story L-shaped 13,500 square foot vacant shopping plaza building surrounded by an asphalt parking area and landscaping. The subject site is currently vacant and fenced off from the general public. However, the eastern portion of the subject site is an active paved parking lot for 84 Washington Street and landscaping.

Subject site operations included an iron foundry and oil company between 1930 and 1975. The subject site was described as undeveloped between 1975 and 1982. From 1982 to present day the subject site was developed as a shopping plaza with several units and parking. Currently (and since at least 2014), the shopping plaza is vacant and fenced off from public access. However, a small portion of the subject site is an active paved parking lot. The Phase I indicated areas surrounding the subject site were developed for residential, retail and industrial operations.

During May 2012 due diligence site investigations/assessments, completed by EBI Consulting (EBI) of Burlington, Massachusetts, acenaphthylene, naphthalene, 2-methylnaphthalene, C9-C18 aliphatics and C11-C22 aromatics were detected in soil at concentrations greater than applicable reportable concentrations (RCS-1). Pursuant to the MCP, this condition was reported to the MassDEP as a 120-day reporting condition on September 13, 2012 by Cobble Hill Center, LLC, to which the MassDEP assigned Release Tracking Number (RTN) 3-31102.

The Phase I: Initial Site Investigation and Tier Classification was submitted by EBI Consultants of Wilmington, Massachusetts on September 12, 2013.

EBI completed a Soil Characterization Report relative to the subject site, dated April 9, 2014, summarizing in-situ pre-characterization soil explorations at the subject site for export of displaced material for historically proposed subject site re-



development (not completed). These explorations consisted of the installation of 18 soil test borings.

Soil pre-characterization analytical results indicated the detection of additional COCs; including, VOCs (chlorobenzene and 1,4-dichlorobenzene), SVOCs (2,4-dinitrotoluene and 1,4-dichlorobenzenes), and PCBs at concentrations exceeding the current applicable Method 1 Risk Based Clean-up standards.

EBI also completed an additional supplemental pre-characterization exploration consisting of 8 soil test borings completed in May 2014. McPhail was provided with analytical laboratory report and sample location plan in regards to this investigation.

During these pre-characterization explorations several COCs were identified including PCBs, chlorobenzene, 1,4-dichlorobenzene with detected concentrations exceeding Method 1 clean-up standards.

McPhail completed additional assessment only activities at the subject site in August of 2018 to collect additional analytical data to complete the subject site's Conceptual Site Model.

Known subject site conditions (to date) do not pose an Imminent Hazard, Critical Exposure Pathway or a Condition of Substantial Release Migration, as defined in the MCP.

#### Conceptual Site Model

Overburden groundwater contamination is not considered to exist on the subject property.

The source of contaminants are considered to be historical site operations and/or historic fill material. Horizontal and vertical extent of soil contamination at the subject site are defined below:

- PCBs – PCB contamination exceeding Method 1 Clean-up Standards was first detected beneath the asphalt pavement at EB-305 (0-4 feet) at 48.9 mg/kg. EBI delineated this PCB detection and determined PCB contaminated soil with concentrations exceeding S2/GW2 and S2/GW3 at EB-402 (1-3.5 feet) and EB-406 (1-3.5 feet), which are approximately 15 feet to the east and south EB-305, respectively. Samples collected from surrounding soil test borings (EB-401, EB-403, EB-405, and B-607 to the west; EB-404 and EB-501 to the south; EB-502 to the north) did not



indicate concentrations of PCBs exceeding S2/GW2 and S2/GW3. The vacant subject site building is abutting this area to the east, however soil test borings on the eastern side of the site building (B-506 and B-605) did not indicate concentrations of PCBs exceeding applicable Method 1 Clean-up standards. Samples B-608 (5-7 feet), which was obtained from boring B-608 installed in the vicinity of EB-305, EB-402 and EB-406, exhibited had a PCB concentration of 0.16 mg/kg which is well below the below S2/GW2 and/or e sS2/GW3 standards, defining vertical extent of PCB contamination in this area.

- VOCs, EPH and SVOCs – VOCs, EPH and SVOCs exceeding Method 1 Clean-up standards were detected in several shallow soil samples collected throughout beneath the soil berm located at the eastern portion of the site, as well as beneath the paved parking area to south and west of the vacantthe subject site building. Impacted material is confined to the fill deposit, which contains urban fill material (coal, ash, wood, concrete) with the exception of EB-5 (10-12 feet) where naphthalene was detected at 46.1 mg/kg. In regards to this sample, we note that the above referenced concentration was detected as part of the VPH analysis. However, analysis of the same sample for EPH with PAH target analytes and VOCs did not detect concentrations of naphthalene above the applicable Method 1 standards. Further, there was no elevated soil jar headspace readings noted by EBI on the boring log for EB-5 during their investigation. The fill deposit extends to approximately 5 to at least 12 feet below ground surface. SVOC and VOC impacted material exists throughout the Site and horizontal limits likely extend off of the the subject site and as such, has not been defined. Vertical extent of SVOC and VOC impacted soils are limited to fill material deposits.

In accordance with Section 40.0836 of the MCP, the Phase II is considered complete. The comprehensive site assessment does not disclose new or additional information which would affect the disposal site's Tier Classification.

In accordance with Section 40.0862 of the MCP, Phase III is considered complete. It is our opinion that the excavation of the fill soils affected by the contaminants of concern will be successful in achieving a Condition of No Significant Risk at the RTN 3-31102 MCP and ultimately, a Permanent Solution. However, A Condition of No Significant Risk does not exist at the site with respect to potential future if the site. Based on the results of a Substantial Hazard Evaluation, a Substantial Hazard does not exist at the MCP site. Accordingly, a Temporary Solution is considered applicable





to the RTN 3-31102 MCP release site at 90 Washington Street in Somerville. However, achieving a Permanent Solution is currently not considered feasible as documented herein.

Plans for redevelopment of the site are on indefinite hold due to the ongoing litigation and the unresolved dispute between the Principals and it is considered not feasible to implement remedial measures at this time. Pending settlement of ongoing litigation over the property as previously described above, it is anticipated that implementation of the selected remedial alternative (excavation and off-site reuse, recycling or disposal) as part of a Phase IV RIP will ultimately result in a Permanent Solution at this MCP site.