Economic Impact Study of Proposed Overhaul of Somerville's Zoning Ordinance

Prepared for City of Somerville | Somerville, Massachusetts | February 2016

Table of Contents

Introduction

Background and Objectives

In January of 2015, the Mayor's Office of Strategic Planning and Community Development submitted their first version of a proposed overhaul of the Somerville Zoning Ordinance to the Somerville Board of Aldermen. To understand the implications of this proposal, the Board of Aldermen requested a number of studies, including analysis of housing (both market rate and affordable), parking and mobility management, and economic development. To provide an economic development review of the proposed ordinance, the City engaged RCLCO, a national real estate and advisory firm, to examine how the proposed ordinance may impact economic activity within the City, as well as how the proposed ordinance impacts the economics of real estate development. Research by RCLCO includes four areas of analysis that are of interest to the City:

- Identify the economic development potential of underutilized parcels located throughout the City, according to the potential build out estimated according to the January 2015 proposed zoning ordinance, with respect to property values, taxes, jobs, and housing;
- Estimate the potential changes in future employment resulting from this new development, by industry breakdown. Direct impacts are calculated for permanent employment in office, retail, and other commercial uses, as well as temporary employment generated by construction;
- Identify the impact of the parking requirements under the January 2015 proposed zoning ordinance in comparison to the existing Somerville Zoning Ordinance, highlighting any economic gains or losses; and
- Evaluate the existing and proposed permitting processes to identify ways the January 2015 proposed zoning ordinance could be streamlined or improved, including identification of ways in which the proposed permitting process aligns the entitlement and approval process with development phasing and construction timing.

The City of Somerville, Massachusetts is located in the Boston Metropolitan area north of the City of Cambridge and west of the Boston neighborhood of Charlestown. The City has an estimated population of 77,500 and, at 4.2 square miles in size, is the most densely populated city in New England. The City is made up of neighborhood clusters, many of which are centered on a Square. For the purposes of this study, a crowd-sourced neighborhood map has been used (Figure 1) to aggregate data. The City currently has two transit (T) stations, including the recently opened station at Assembly Square. The Green Line Extension project will bring six additional transit stations to Somerville, increasing the percentage of lots within walking distance to rail transit from 15% to 85% when the project is fully built and operational. The first phase of the extension is due to open in 2019, and includes stations at Union Square and Washington Street, in the eastern reaches of Somerville. Later phases will bring stations to Gilman Square, Lowell Street, and Ball Square, and are anticipated to open after 2019. A station at Mystic Valley Parkway/Route 16 is due to open at a later date.

Figure 1 ***Crowd-Sourced Neighborhood Map of Somerville, 2015***

Executive Summary

Key Findings

- There are 221 underutilized parcels in the city meet criteria making them probable for development or redevelopment.
- If developed according to the January 2015 proposed zoning ordinance as estimated in this report, these 221 underutilized parcels can accommodate nearly 50 million square feet of development, which will increase property values by approximately $12.3 billion over the long term, and create 89,000 new permanent jobs and 79,000 temporary construction jobs.
- Of the 221 underutilized parcels, an estimated 40 parcels could be developed within the timeframe of SomerVision, between 2015 and 2030, generating approximately $50.6 million in additional annual tax revenue and approximately 21,750 full-time jobs to the City of Somerville, as well as approximately 16,400 temporary construction jobs.
- The reduced parking requirements of the proposed zoning ordinance have the dual benefit of providing for more developable land as well as increasing tax revenues. Under a structured parking model for a sample site near the future Washington Street transit station, the office scenario is projected to provide the City with an additional $195,000 in tax revenue each year, while the apartment scenario is projected to provide an additional $71,000 in tax revenue each year.
- Development potential and tax revenue stemming from the redevelopment opportunities of the underutilized parcels are contingent on the work of developers, many of whom recognize the need for an updated zoning ordinance, but are nonetheless concerned about a perceived lack of clarity in the January 2015 proposed ordinance, as well as its stringent neighborhood meeting and affordable housing requirements.

Recommendations

- Continue to pursue an overhaul of the Somerville Zoning Ordinance to reduce uncertainty and guide development in a consistent and predictable fashion according to the expectations of SomerVision. Additionally, increase public outreach and educational events between the Planning Division and the community concerning proposed zoning changes.
- Develop a zoning district that is limited to only commercial uses on a few parcels surrounding the core of Union Square and a Special District for Boynton Yards that would set minimum standards for the development of commercial space.
- Develop design standards and guidelines so that applicants can better meet the expectations of the Historic Preservation Commission (HPC) and the Design Review Committee (DRC), while not stifling the creativity of the developers and architects themselves.
- Proactively identify areas of the city that should be designated Local Historic Districts and amend the Demolition Delay Ordinance to eliminate review by the HPC for properties within the “Areas to Transform” identified in SomerVision.
- Continue to improve customer service in permit administration by expanding the use of CitizenServe to all types of development review, using the Zoning Permit Administrator as the first point of contact, and, eventually, bring representatives from department involved in the permitting process under one roof in one-stop permitting center.

Underutilization Analysis

Task 1 asked RCLCO to identify the economic development potential of underutilized parcels located throughout the City, with respect to taxes, jobs, and housing, according to the potential build out estimated according to the January 2015 proposed zoning ordinance.

Methodology

The City of Somerville provided RCLCO with a database that included all properties within the 3MU, 4MU, 5MU, 7MU, 10MU, FAB, CI, and Special Districts according to the zoning map of the January 2015 proposed zoning ordinance. From this database, the following properties were removed, as their circumstances make them significantly less likely to be redeveloped under current or future zoning:

1. Properties within any historic district
2. Civic or institutional uses
3. Public spaces (civic space)
4. Recent construction
5. Recently permitted development (not yet under construction)
6. Buildings with residential condos
7. Buildings with 8 or more residential units

Of the resulting 1,443 parcels in the database, RCLCO merged any accessory lots and removed any duplicates, reducing the number of parcels included in the analysis to 973. RCLCO conducted a field survey of the remaining parcels of this database to determine their economic development or redevelopment potential. From this original list of parcels, RCLCO identified 221 parcels in the city that meet criteria of being underutilized and therefore probable for development or redevelopment.

RCLCO used a combination of two separate scoring factors to identify underutilized parcels:

- As a first scoring factor, RCLCO visually inspected all 973 parcels in the dataset to determine the physical condition, lot coverage, and size of any existing structures, as well as any relevant improvements, neighboring uses, and site characteristics (including slope, dimension, orientation, etc.) and gathered information about any other known factors such as development plans, anticipated development constraints, and likely development timelines. RCLCO also considered proximity to any existing or proposed transit stations so as to account for the green line extension project, as well as its likely resulting effect on property values. From this survey, RCLCO gave each parcel a qualitative development/redevelopment probability ranking of low, medium/low, medium, medium/high, or high, based on the aggregate impact of the factors identified above.

- As a second scoring factor, RCLCO estimated the development impact of the proposed zoning ordinance in terms of developing each site to its highest potential square footage and the potential assessed value for each parcel once developed or redeveloped in full. RCLCO then took the potential square footage and potential assessed value of each parcel and subtracted from it the existing building area and existing assessed value. The resulting difference in square footage and value indicates how much upside there would be if each parcel were to be developed or redeveloped to their highest potential under the proposed zoning ordinance.

To identify underutilized parcels, RCLCO selected parcels that were either 1) classified as highly probable according to the first factor; or 2) classified as medium or medium/high probability with a possible building area of 50,000 square feet or greater as a combination of both factors. These selection criteria resulted in the identification of 221 parcels in the city that could be understood as underutilized and probable for development or redevelopment. However, it is unrealistic to assume that all of the 221 underutilized parcels will be developed within SomerVision's 2030 timeframe. When considering where development is most likely to occur (such as around transit stations, along commercial corridors, and in major redevelopment districts like Assembly Square) and taking into consideration various limitations on the rate that development can occur (crane and construction crew availability, for example) just under 20% of the 221 parcels were determined likely for development or redevelopment between 2015 and 2030 (also defined in this report as "near term").

Although RCLCO was not engaged to perform a market study to determine likely absorption rates along either a near-term or long-term timeframe, we instead estimated a reasonable amount of near-term development activity based on RCLCO's national market expertise with redevelopment patterns in similar transit-oriented urban areas. RCLCO has drawn upon our experience studying development trends associated with urban infill and mixed-use development trends, current housing trends and preferences, as well as our ongoing real estate development analysis work in the Boston Metropolitan Area to inform the underutilization analysis and parcel selection process discussed above.

Estimating Development in Each Neighborhood

RCLCO used a crowd-sourced neighborhood map developed by Somerville residents to aggregate data and provide a more detailed level of analysis for this report. Development was estimated for each neighborhood as follows:

- **Assembly Square** – Assembly Square includes sixteen total lots that are probable for development or redevelopment according to our criteria, with four estimated to see construction in the near-term (by 2030). Near-term development is estimated based on a preliminary development proposal by Somerville Office Associates (5 Middlesex Avenue), including a hotel, and a likely scenario for the final phases of the Assembly Row PUD at a 60% commercial and 40% residential split. The resulting blend for probable near-term development in Assembly Square is 72% commercial and 28% residential. Long-term development is estimated for all remaining lots assuming a FAR of 5.0 and a mix of 60% commercial and 40% residential, with the exception of Phase II of the Partners HealthCare site, which is expected to add an additional 400,000 SF of office space.

- **Union Square** – Union Square includes thirty-one total lots that are probable for development or redevelopment according to our criteria, with thirteen estimated to see construction in the near-term (by 2030). Six of the seven "D parcels" identified in the Union Square Redevelopment Plan are included in the near-term lots of Union Square and development is assumed according to estimates generated from the Union Square Neighborhood Planning process, including commercial and residential development as well as a 175 key hotel. Because Union Square is not a Special District in the proposed zoning ordinance, development was assumed with a mix of 25% commercial and 75% residential applied to all development lots other than the D-Parcels, regardless of near-term or long-term development. This 25% commercial and 75% residential split reflects typical development in Somerville over recent years. Based upon the zoning overhaul draft, the resulting blend for probable near-term development in Union Square is 38% commercial and 62% residential.

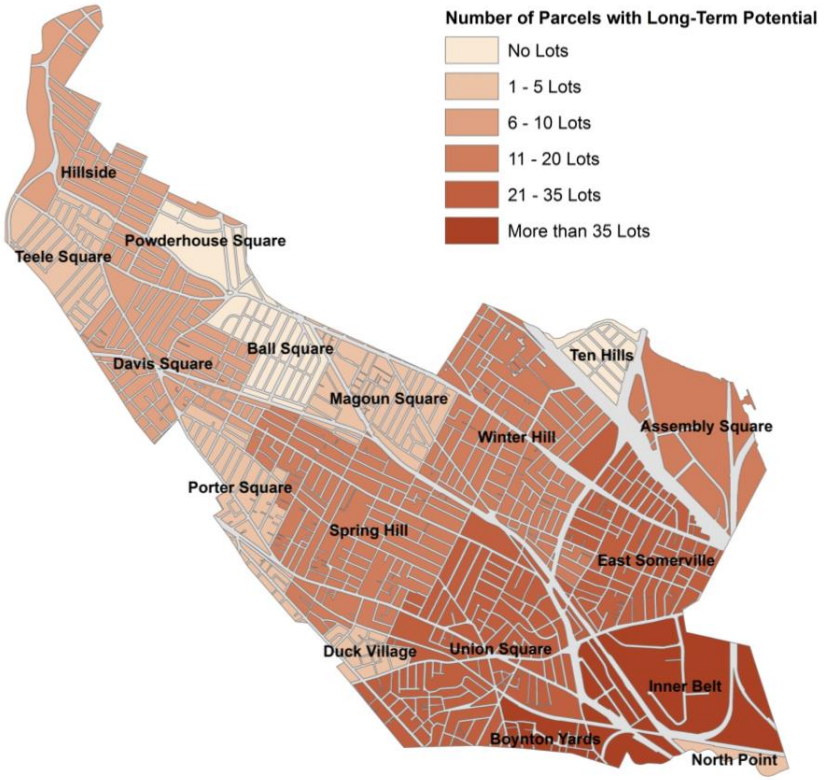
- **Boynton Yards** – Boynton Yards includes thirty-nine total lots that are probable for development or redevelopment according to our criteria, with only two estimated to see construction in the near-term. Of these two parcels, one is "D3" of the seven "D parcels" identified in the Union Square Redevelopment Plan and development on this lot was assumed according to estimates generated from the Union Square Neighborhood Planning process. Because Boynton Yards is not a Special District in the proposed ordinance, development was assumed with a mix of 25% commercial and 75% residential, regardless of near-term or long-term development. This 25% commercial and 75% residential split reflects typical development in Somerville over recent years. The resulting blend for probable near-term development in Boynton Yards is 52% commercial and 48% residential.

- **Davis Square** – Davis Square includes ten total lots that are probable for development or redevelopment according to our criteria, with only two estimated to see construction in the near-term. Both lots are located within a Mixed-Use district and development is assumed using the 25% commercial and 75% residential split reflective of typical development in Somerville over recent years, except that a 100 key hotel was assumed for one of the two lots. The resulting blend for probable near-term development in Davis Square is 55% commercial and 45% residential.

- **Duck Village** – Duck Village includes three total lots that are probable for development or redevelopment according to our criteria, with only one estimated to see construction in the near-term. Development is assumed using the 25% commercial and 75% residential split reflective of typical development in Somerville over recent years.

- **East Somerville** – East Somerville includes twenty-one lots that are probable for development or redevelopment according to our criteria, with five lots estimated to see construction in the near-term. Development is assumed using the 25% commercial and 75% residential split reflective of typical development in Somerville over recent years.

Number of Parcels with Long-Term Potential for Redevelopment (After 2030) in Somerville



Number of Parcels with Long-Term Potential			
Assembly Square	16	North Point	2
Ball Square	0	Porter Square	4
Boynton Yards	39	Powderhouse Square	0
Davis Square	10	Spring Hill	10
Duck Village	3	Teele Square	2
East Somerville	21	Ten Hills	0
Hillside	8	Union Square	31
Inner Belt	57	Winter Hill	15
Magoun Square	3		

- **Hillside** – Hillside includes eight lots that are probable for development or redevelopment according to our criteria, with only one estimated to see construction in the near-term. Development is assumed using the 25% commercial and 75% residential split reflective of typical development in Somerville over recent years.

- **Inner Belt** – Inner Belt includes fifty-seven lots that are probable for development or redevelopment according to our criteria, but only three are estimated to see construction in the near-term because extensive infrastructure work is necessary to open up much of these area for redevelopment. Much of the Inner Belt "neighborhood" falls into a number of Special Districts of the proposed ordinance, including Inner Belt, Brickbottom, and Grand Junction. In the January 2015 proposed ordinance, these special districts require a minimum of 60% commercial development and, therefore, development is assumed with a mix of 60% commercial and 40% residential, regardless of near-term or long-term development. A 150 key hotel is included in the anticipated build-out. The resulting blend for probable near-term development in Inner Belt is 64% commercial and 36% residential.

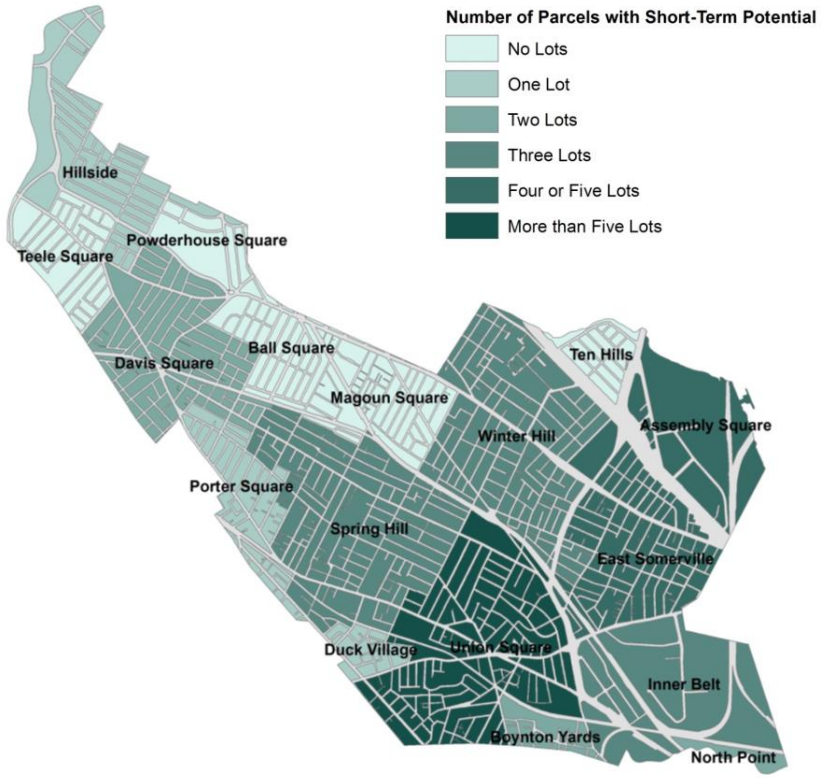
- **Magoun Square** – Magoun Square includes three lots probable for development or redevelopment according to our criteria, but none are estimated to see construction in the near term by 2030.

- **Porter Square** – Porter Square includes four lots probable for development or redevelopment according to our criteria, with only one estimated to see construction in the near-term. Development is assumed using the 25% commercial and 75% residential split reflective of typical development in Somerville over recent years.

- **Spring Hill** – Spring Hill includes ten lots probable for development or redevelopment according to our criteria, with three lots estimated to see construction in the near-term. Development is assumed using the 25% commercial and 75% residential split reflective of typical development in Somerville over recent years

- **Teele Square** – Teele Square includes two lots probable for development or redevelopment according to our criteria, but none are estimated to see construction in the near term by 2030.

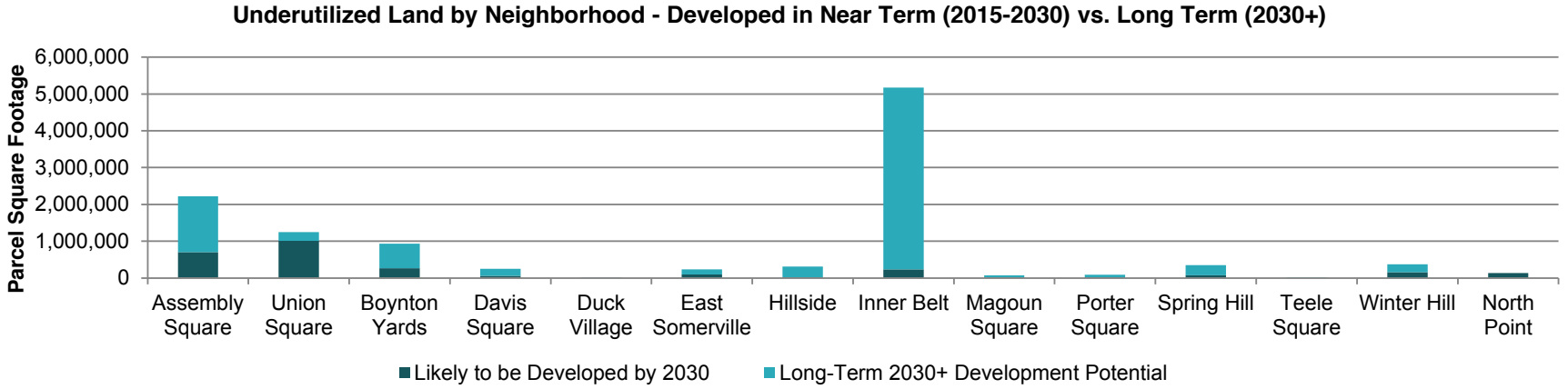
Number of Parcels with Short-Term Potential for Redevelopment (By 2030) in Somerville



Number of Parcels with Short-Term Potential			
Assembly Square	4	North Point	2
Ball Square	0	Porter Square	1
Boynton Yards	2	Powderhouse Square	0
Davis Square	2	Spring Hill	3
Duck Village	1	Teele Square	0
East Somerville	5	Ten Hills	0
Hillside	1	Union Square	13
Inner Belt	3	Winter Hill	3
Magoun Square	0		

- **Winter Hill** – Winter Hill includes fifteen lots probable for development or redevelopment according to our criteria, with three estimated to see construction in the near-term. Development is assumed using the 25% commercial and 75% residential split reflective of typical development in Somerville over recent years.

- **North Point** – North Point includes two lots that are probable for development or redevelopment according to our criteria, with both estimated to see construction in the near-term (by 2030). The previously approved Neighborhood Development Plan for North Point was used to inform expected development on these two parcels.



Total Estimated Development and Economic Impacts

A total of 40 of the 221 underutilized parcels are likely to be developed in the near term (prior to 2030). Development or redevelopment of the 40 near-term parcels under the January 2015 proposed zoning ordinance has the potential to increase property values by $2.7 billion, generate $50.6 million in annual tax revenue, create an estimated 21,750 permanent jobs, as well as 16,400 temporary full-time equivalent (FTE)[1] construction jobs, and 4,700 new housing units. Underutilized parcels in Assembly Square and Union Square, due to their size and attractiveness for redevelopment, make up about 30% of the 11.3 million square feet probable for near-term development or redevelopment. Near-term commercial development could total 6.0 million square feet, including 4.7 million square feet of office and laboratory space, 750,000 square feet of retail, and over 600 hotel rooms. This new commercial floor area is projected to provide the space necessary for 16,000 new office jobs and 4,000 new laboratory jobs, 675 new restaurant jobs, 825 new soft goods retail jobs, and 250 hospitality jobs. Annual tax revenue from near-term development is estimated to provide $32.1 million in commercial property taxes, $15.1 million

[1] Full-time equivalent construction jobs are the hours worked by one employee on a full-time basis. This concept is used to convert the hours worked by several part time employees into one full-time employee. On an annual basis FTE is considered to be 2,080 hours (8 hrs x 5 days a week x 52 weeks). Temporary construction employment is calculated on an annual basis, so if an employee works at the same job site for two years, it would count as two FTE construction jobs.

in residential tax revenue, $900,000 from the City's meal tax, and $2.6 million from the City's hotel tax. A fiscal impact study of estimated near-term development is being conducted separate from this report.

If the estimated build out for the 40 near term parcels (above) is added to the 5,215 new jobs and 1,980 housing units already completed in Assembly Square since 2010, Somerville will achieve 90% of SomerVision's jobs target and 110% of SomerVision's housing target. Relatively minor changes to the proposed ordinance can help ensure that the jobs target is not only met, but potentially exceeded. These changes include developing a zoning district that is limited to only commercial uses for a select number of parcels in the core of Union Square and implementing a Special District for Boynton Yards that would set minimum standards for the development of commercial space. Typical "mixed-use" development allowed in the CCD and TOD districts of the existing ordinance and the MU districts of the January 2015 proposed ordinance can produce development that is slightly off from SomerVision's expectations, if properties are redeveloped as estimated in this report.

Development or redevelopment of all of the 221 underutilized parcels in the city under the January 2015 proposed zoning ordinance has the potential to increase property values by $12.3 billion, generate $217 million in annual tax revenue, create an estimated 89,000 permanent jobs, as well as 79,000 temporary construction jobs, and 21,300 new housing units. Long-term development could total 49.7 million square feet, including 19.7 million square feet of office and laboratory space, 4.3 million square feet of retail, and 1,200 hotel rooms. This new commercial floor area is projected to provide the space necessary for 64,500 new office jobs, 16,000 new laboratory jobs, 3,825 new restaurant jobs, 4,675 other retail jobs (including soft goods), and 500 hospitality jobs. Annual tax revenue from long-term development is estimated to provide $130.7 million in commercial property taxes, $76.2 million in residential tax revenue, $5.1 million from the City's meal tax, and $5.1 million from the City's hotel tax. The net fiscal impact of estimated long-term development is being conducted separate from this report.

A detailed breakdown of both near-term and long-term development and resulting economic impacts can be found in Figure 2 and Exhibit I-2.

CITY OF SOMERVILLE

Figure 2 ***Summary of Total (Near and Long Term) Underutilized Lots***

		Total	Assembly Square	Union Square	Boynton Yards	Davis Square	Duck Village	East Somerville	Hillside	Inner Belt	Magoun Square	Porter Square	Spring Hill	Teele Square	Winter Hill	North Point
Underutilized Parcels with High Development Potential																
Total Parcels Evaluated		221	16	31	39	10	3	21	8	57	3	4	10	2	15	2
Total Parcel Area		11,439,000 SF	2,223,000 SF	1,245,000 SF	936,000 SF	252,000 SF	024,000 SF	235,000 SF	311,000 SF	5,178,000 SF	075,000 SF	086,000 SF	348,000 SF	017,000 SF	375,000 SF	134,000 SF
Total Parcel Acreage		262.6	51.0	28.6	21.5	5.8	0.6	5.4	7.1	118.9	1.7	2.0	8.0	0.4	8.6	3.1
Total Potential Value (Excl. Land)		$12,608,126,000	$2,685,963,000	$1,076,716,000	$1,225,456,000	$158,861,000	$15,866,000	$192,197,000	$160,989,000	$6,363,024,000	$46,459,000	$53,746,000	$187,529,000	$9,193,000	$258,127,000	$174,000,000
Total Potential Value Added		$12,251,752,000	$2,620,177,000	$1,037,837,000	$1,207,928,000	$143,616,000	$15,031,000	$186,002,000	$153,605,000	$6,188,498,000	$45,733,000	$51,005,000	$177,186,000	$8,928,000	$242,206,000	$174,000,000
Total Potential SF		49,712,000.0	10,988,000	4,561,000	4,897,000	763,000	77,000	902,000	777,000	23,438,000	225,000	260,000	902,000	44,000	1,224,000	654,000
Office SF		19,716,466.2	5,935,903	1,120,767	1,277,574	103,418	10,566	131,538	108,150	10,227,173	33,794	37,171	118,274	4,357	182,779	425,000
Retail SF		4,258,007.2	913,075	380,837	283,786	69,893	8,563	94,080	86,056	2,134,643	22,530	27,779	107,116	6,536	123,113	-
Residential Units		21,330	3,230	2,500	2,896	439	48	571	489	9,280	143	164	564	27	776	203
Hotel Keys		1,204	425	175	-	100	-	-	-	503	-	-	-	-	-	-
Potential FAR		4.3	4.9	3.7	5.2	3.0	3.2	3.8	2.5	4.5	3.0	3.0	2.6	2.6	3.3	4.9
Total Potential Jobs																
Office /Laboratory		80,525	25,403	4,483	5,110	414	42	526	433	40,909	135	149	473	17	731	1,700
Retail /Restaurant		8,516	1,826	762	568	140	17	188	172	4,269	45	56	214	13	246	-
Hotel		482	170	70		40				201						
Total Permanent Jobs		**88,763**	**26,639**	**5,315**	**5,678**	**593**	**59**	**714**	**605**	**45,379**	**180**	**204**	**687**	**31**	**977**	**1,700**
Temporary FTE Jobs (Construction)		**78,781**	**17,767**	**5,718**	**7,424**	**1,133**	**111**	**1,325**	**1,133**	**39,177**	**332**	**380**	**1,304**	**61**	**1,802**	**1,114**
Annual Tax Revenue																
Commercial Assessed Value			$1,845,460,369	$390,691,507	$415,102,168	$38,446,397	$4,110,642	$55,296,557	$41,869,017	$3,310,640,635	$12,523,568	$14,159,702	$47,457,000	$2,080,678	$73,635,875	$116,875,000
Commercial Tax Revenue	$20.52 per $,1000 AV	**$130,678,524**	**$37,868,847**	**$8,016,990**	**$8,517,896**	**$788,920**	**$84,350**	**$1,134,685**	**$859,152**	**$67,934,346**	**$256,984**	**$290,557**	**$973,818**	**$42,696**	**$1,511,008**	**$2,398,275**
Residential Assessed Value			$768,611,105	$660,070,280	$810,353,623	$104,562,860	$11,755,491	$136,900,695	$119,119,676	$2,972,581,509	$33,935,105	$39,586,089	$140,072,304	$7,112,536	$184,490,842	$57,125,000
Residential Tax Revenue	$12.61 per $,1000 AV	**$76,243,554**	**$9,692,186**	**$8,323,486**	**$10,218,559**	**$1,318,538**	**$148,237**	**$1,726,318**	**$1,502,099**	**$37,484,253**	**$427,922**	**$499,181**	**$1,766,312**	**$89,689**	**$2,326,430**	**$720,346**
Food and Beverage Retail Sales																
$400 per SF	40% of Retail Sales Food/Bev		$146,091,968	$60,933,927	$45,405,760	$11,182,826	$1,370,152	$15,052,786	$13,768,989	$341,542,879	$3,604,728	$4,444,676	$17,138,543	$1,045,786	$19,698,128	$0
Meals Tax	0.75% Tax Rate	**$5,109,609**	**$1,095,690**	**$457,004**	**$340,543**	**$83,871**	**$10,276**	**$112,896**	**$103,267**	**$2,561,572**	**$27,035**	**$33,335**	**$128,539**	**$7,843**	**$147,736**	**$0**
Hotel Annual Room Sales	$239 ADR, 81.6% Occupancy		30,285,131	12,457,158	-	7,118,376	-	-	-	35,835,522	-	-	-	-	-	-
Hotel's Tax	6.00% Tax Rate	**$5,141,771**	**$1,817,108**	**$747,429**	**$0**	**$427,103**	**$0**	**$0**	**$0**	**$2,150,131**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total Annual Tax Revenue		**$217,173,458**	**$50,473,830**	**$17,544,910**	**$19,076,999**	**$2,618,431**	**$242,863**	**$2,973,899**	**$2,464,519**	**$110,130,302**	**$711,941**	**$823,073**	**$2,868,668**	**$140,228**	**$3,985,174**	**$3,118,621**

Figure 3 ***Summary of Near Term Underutilized Lots***

		Total	Assembly Square	Union Square	Boynton Yards	Davis Square	Duck Village	East Somerville	Hillside	Inner Belt	Magoun Square	Porter Square	Spring Hill	Teele Square	Winter Hill	North Point
Likely Development by 2030 (Near Term)																
Total Parcels Selected		40	4	13	2	2	1	5	1	3	0	1	3	0	3	2
Total Parcel Area		2,788,000 SF	706,000 SF	1,009,000 SF	266,000 SF	059,000 SF	011,000 SF	094,000 SF	017,000 SF	238,000 SF	000,000 SF	024,000 SF	075,000 SF	000,000 SF	155,000 SF	134,000 SF
Total Parcel Acreage		64.0	16.2	23.2	6.1	1.4	0.3	2.2	0.4	5.5	0.0	0.6	1.7	0.0	3.6	3.1
Parcel Area % Share of Total		100%	25%	36%	10%	2%	0%	3%	1%	9%	0%	1%	3%	0%	6%	5%
Built SF as % of Total		100%	30%	33%	11%	2%	0%	3%	0%	8%	0%	1%	2%	0%	4%	6%
Potential Development Square Footage																
Office SF		4,735,803	2,091,134	1,013,282	606,404	15,630	5,556	52,226	4,431	422,500	-	12,033	17,858	-	69,749	425,000
Retail SF		751,828	190,878	291,241	45,351	10,420	3,704	37,780	6,646	84,500	-	8,022	26,787	-	46,499	-
Residential SF	Avg Residential Unit size 1157.8	5,385,082	933,141	2,326,509	606,909	78,149	27,780	270,018	33,232	338,000	-	60,165	133,937	-	348,744	228,500
Residential Units		4,651	819	2,004	534	66	23	228	27	291	-	51	109	-	295	203
Hotel Keys		613	188	175		100				150						
Total Potential Building SF		**11,340,361**	**3,366,403**	**3,772,429**	**1,258,664**	**174,199**	**37,040**	**360,023**	**44,309**	**950,000**	**-**	**80,220**	**178,582**	**-**	**464,992**	**653,500**
Existing Building SF		952,014	198,442	375,312	109,116	35,859	783	38,001	1,470	62,829	-	-	52,729	-	77,473	-
Underutilized Potential SF		**10,388,347**	**3,167,961**	**3,397,117**	**1,149,548**	**138,340**	**36,257**	**322,022**	**42,839**	**887,171**	**-**	**80,220**	**125,853**	**-**	**387,519**	**653,500**
% Potential Space Developed		23%	31%	83%	26%	23%	48%	40%	6%	4%	0%	31%	20%	0%	38%	100%
SF by Type																
% Commercial		52%	72%	38%	52%	55%	25%	25%	25%	64%	0%	25%	25%	0%	25%	65%
% Residential		47%	28%	62%	48%	45%	75%	75%	75%	36%	0%	75%	75%	0%	75%	35%
Office Value		$1,293,340,339	$575,061,850	$275,563,110	$166,761,218	$3,360,416	$1,194,527	$13,575,717	$952,639	$116,187,466	$0	$2,587,082	$3,839,521	$0	$17,381,792	$116,875,000
Retail Value		$173,193,542	$44,545,779	$67,967,685	$10,583,726	$2,431,723	$864,404	$8,505,537	$1,163,106	$19,720,016	$0	$1,872,109	$4,687,787	$0	$10,851,669	$0
Residential Units Value		$1,193,979,860	$170,243,808	$538,615,536	$138,477,994	$15,694,955	$5,579,085	$54,676,568	$7,232,410	$95,062,472	$0	$12,083,068	$29,149,533	$0	$70,039,429	$57,125,000
Hotel Value		$97,172,125	$29,801,565	$25,954,084	$0	$15,851,896	$0	$0	$0	$23,777,845	$0	$0	$0	$0	$0	$0
Potential Assessed Value (Excl. Land)		**$2,760,348,985**	**$824,102,857**	**$908,100,415**	**$315,822,938**	**$37,338,990**	**$7,638,017**	**$76,757,822**	**$9,348,155**	**$254,747,800**	**$0**	**$16,542,259**	**$37,676,841**	**$0**	**$98,272,890**	**$174,000,000**
Existing Assessed Value		$57,753,900	$12,249,200	$28,605,600	$4,392,800	$2,797,300	$190,200	$3,220,100	$105,900	$2,600,700	$0	$34,100	$1,586,300	$0	$1,971,700	$0
Underutilized Potential Value		**$2,702,595,085**	**$811,853,657**	**$879,494,815**	**$311,430,138**	**$34,541,690**	**$7,447,817**	**$73,537,722**	**$9,242,255**	**$252,147,100**	**$0**	**$16,508,159**	**$36,090,541**	**$0**	**$96,301,190**	**$174,000,000**
Annual Tax Revenue																
Commercial Assessed Value		$1,561,919,271	$649,409,195	$369,484,879	$177,344,944	$21,644,035	$2,058,932	$22,081,253	$2,115,745	$159,685,327	$0	$4,459,191	$8,527,308	$0	$28,233,461	$116,875,000
Commercial Tax Revenue	$20.52 per $,1000 AV	**$32,050,583**	**$13,325,877**	**$7,581,830**	**$3,639,118**	**$444,136**	**$42,249**	**$453,107**	**$43,415**	**$3,276,743**	**$0**	**$91,503**	**$174,980**	**$0**	**$579,351**	**$2,398,275**
Residential Assessed Value		$1,193,979,860	$170,243,808	$538,615,536	$138,477,994	$15,694,955	$5,579,085	$54,676,568	$7,232,410	$95,062,472	$0	$12,083,068	$29,149,533	$0	$70,039,429	$57,125,000
Residential Tax Revenue	$12.61 per $,1000 AV	**$15,056,086**	**$2,146,774**	**$6,791,942**	**$1,746,208**	**$197,913**	**$70,352**	**$689,472**	**$91,201**	**$1,198,738**	**$0**	**$152,367**	**$367,576**	**$0**	**$883,197**	**$720,346**
Food and Beverage Retail Sales																
$400 per SF	40% of Retail Sales Food/Bev	$120,292,545	$30,540,480	$46,598,482	$7,256,177	$1,667,183	$592,634	$6,044,812	$1,063,411	$13,519,996	$0	$1,283,514	$4,285,977	$0	$7,439,879	$0
Meals Tax	0.75% Tax Rate	**$902,194**	**$229,054**	**$349,489**	**$54,421**	**$12,504**	**$4,445**	**$45,336**	**$7,976**	**$101,400**	**$0**	**$9,626**	**$32,145**	**$0**	**$55,799**	**$0**
Hotel Annual Room Sales	$300 ADR, 65% Occupancy	$43,630,275	$13,380,900	$12,455,625	$0	$7,117,500	$0	$0	$0	$10,676,250	$0	$0	$0	$0	$0	$0
Hotel's Tax	6.00% Tax Rate	**$2,617,817**	**$802,854**	**$747,338**	**$0**	**$427,050**	**$0**	**$0**	**$0**	**$640,575**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total Annual Tax Revenue		**$50,626,680**	**$16,504,559**	**$15,470,598**	**$5,439,747**	**$1,081,603**	**$117,046**	**$1,187,915**	**$142,591**	**$5,217,456**	**$0**	**$253,496**	**$574,701**	**$0**	**$1,518,347**	**$3,118,621**
Summary of Total Employment																
Office	250 SF per employee	19,939	9,360	4,053	2,426	63	22	209	18	1,690	-	48	71	-	279	1,700
Retail	500 SF per employee	1,504	382	582	91	21	7	76	13	169	-	16	54	-	93	-
Hotel	0.4 Employees per key	245	75	70	-	40	-	-	-	60	-	-	-	-	-	-
Jobs Added		**21,688**	**9,817**	**4,706**	**2,516**	**123**	**30**	**284**	**31**	**1,919**	**-**	**64**	**125**	**-**	**372**	**1,700**
Temporary Construction Employment		**16,436**	**5,534**	**4,572**	**1,665**	**266**	**55**	**528**	**62**	**1,588**	**-**	**118**	**250**	**-**	**685**	**1,114**

Employment Analysis

Task 2 asked RCLCO to estimate the changes in future employment resulting from potential new development possible under the January 2015 proposed zoning ordinance. To determine direct impacts, permanent employment in office, retail, and other commercial uses, as well as temporary employment generated by construction, is estimated.

Overview of Regional Employment

The Boston-Cambridge-Newton MA-NH Metropolitan Statistical Area's (MSA) total nonfarm employment was 2,654,400 in July 2015, up 2.2% from July 2014. The MSA added 57,900 jobs between July 2014 and July 2015 and approximately half of those jobs were in the education and healthcare services and professional and business services sectors. Over the past decade (between 2005 and 2014), Somerville has accounted for a 0.9% share of the MSA's total employment or just over 22,000 total jobs on average. The Boston MSA has added approximately 191,600 jobs over this same time period, with Somerville providing approximately 3,700 or 2.0% of the MSA's total job growth. If all municipalities within the MSA experienced growth equally, Somerville's employment numbers would be expected to grow equal to its share of the MSA total employment. In contrast, Somerville's actual job growth indicates that the city is capturing 2.2 times more than its fair share of employment growth (see Exhibit II-2).

Job Growth in Somerville

The MSA is projected to gain approximately 315,000 new jobs over the next 15 years. If Somerville continues to capture 2.0% of the MSA's job growth, the city will add approximately 6,300 new jobs by 2030. However, estimating growth in this manner is based on a 'business as usual' model rather than one reflecting economic development initiatives encouraged by SomerVision. The City of Somerville is proactively working to attract new employment opportunities by various means, including the proposed zoning ordinance that favors commercial land uses and investments and new public transportation improvements that will likely attract more job growth than seen in years past. Results of these recent job growth initiatives can already be seen with the development of the new Partners Health building located in Assembly Square. At over 700,000 square feet in total, this multi-story office building with ground floor retail is expected to add 4,750 jobs as Partners Health consolidates a number of its offices into this new building. Additionally, a 100,000 square foot speculatively built office building on Block 2 of Assembly ROW is now 100% leased and is estimated to add another 450 jobs to the city.

Between 2013 and 2014, the economy of Somerville added 1,750 new jobs to existing employment opportunities within the city, a significant increase from previous annual averages that were closer to 200 per year between 2004 and 2013.[2] If Somerville were to capture six percent (6%) of the region's job growth, which is similar to Cambridge's rate of capture over the 2005-2014 time period, it is likely that future job growth between 2015 and 2030 would be in the 15,000 to 20,000 range, or 1,500 to 2,000 new jobs on average each year as Somerville begins to absorb demand that is either priced out of or not able to find space in Cambridge and other nearby job centers.

These job growth numbers align well with potential job creation made possible by development under the proposed ordinance that is estimated in this report. Projected employment by industry sector from the long-term build out of the 221 parcels identified in Task 1 can be found on Exhibit II-12 (see page 64). Near-term development and redevelopment is projected to create the space necessary for an estimated 21,700 new jobs in total (see Exhibit I-2). A breakdown of estimated permanent near-term job growth is summarized as follows:

- Office: 16,000 jobs
- Laboratory: 4,000 jobs
- Retail: 675 jobs
- Restaurant: 825 jobs
- Hotel: 250 jobs

[2] Employment in Somerville increased to 23,407 from 21,411 in the ten year period between 2004 and 2013, which if taken as a straight line average is approximately 200 jobs per year. In reality there was annual fluctuation with the city gaining jobs some years and losing some other years. See Exhibit II-2 for more details.

Parking Analysis

Task 3 asked RCLCO to identify the impact of parking requirements in the January 2015 proposed ordinance in comparison to the existing Somerville Zoning Ordinance with respect to development feasibility and any resulting economic impacts.

The January 2015 proposed zoning ordinance provides for a significant and innovative shift form how parking is regulated within the city under the existing ordinance. To accomplish this, the proposed ordinance first coordinates parking requirements to how close properties are located to existing or future transit stations. Development outside of walking distance to transit uses a context-based approach, where parking minimums are custom tailored to specific land uses and then refined using any applicable site-specific adjustments. At the same time, development within walking distance to transit uses a market-based approach, where no minimum parking is required and the amount of parking supplied is instead determined by a developer's assessment of the amount necessary to make a project marketable. To ensure parking is not overbuilt in these transit accessible areas, parking maximums are also established.

Using a market-based approach for transit accessible areas is valuable because it eliminates situations where minimum parking requirements are set higher than the actual demand for parking, which causes a needless waste in Somerville's most limited resource: land area. It should also be noted that a market-based approach does not mean that parking won't be provided. In most cases, off-street parking is necessary to acquire financing for development and to market the sale or rent of the housing and commercial space that is built. Municipalities gain a significant return when developers are allowed to utilize a close proximity to transit services to reduce the amount of parking necessary on site and instead build additional commercial space or dwelling units that generate tax revenue.

Methodology

In order to determine the economic impact of the parking standards in the January 2015 proposed ordinance, a site on the corner of Washington Street and Joy Street in the Brickbottom neighborhood (currently the location of an AutoZone) was selected for hypothetical development scenarios. This site is located within walking distance to the future Brickbottom station of the Green Line Extension and is subject to the market-based approach of the proposed ordinance. For this parking study, the TOD 135 district was selected for analysis of the parking standards of the existing Somerville Zoning Ordinance and the 10MU district for analysis of the parking standards of the January 2015 proposed ordinance. A ten-story, 36,000 square foot floor plate Mixed-Use Building of 270,000 total square feet (above ground) was modeled to maximize the site's built area under the proposed ordinance's 10MU zoning district. Within this building envelope, land uses were modeled in four different scenarios including a residential apartment building with underground parking, a residential building with structured parking, an office building with underground parking, and an office building with structured parking. All four scenarios were assumed to have 20,000 square feet of ground floor retail. Resulting differences in each development scenario can be found on Exhibit III-1 (see page 67).

For apartment rent assumptions, the City of Somerville provided information for apartment pricing based on their research, taken to be a weighted average of $3.00 per square foot for a 900 square foot average unit. For office rent assumptions, the newly completed spec office building in Assembly Square, which is achieving $40 per square foot gross rents, was used as a comparable, and rent was inflated slightly to $42 under the assumption that the office market will gain momentum as new development progresses in Somerville. Construction costs were compiled from developer interviews, RS Means, and other secondary sources.

Analysis Findings

RCLCO has determined that the January 2015 proposed ordinance has the potential to increase the total amount of developable square footage and, in doing so, create additional jobs, allow for additional residential units, and increased tax revenue for the City when compared to the existing zoning ordinance.

The proposed reduction in parking requirements also makes development more economically attractive by increasing residual land values. Although the parking standards of the proposed ordinance improve upon those of the existing ordinance, because of the added expense of building underground parking it is still more attractive to developers to include all or some of their spaces as above-ground structured parking.

The reduction of parking requirements results in several positive impacts for the City when parking square footage is given back to leasable uses. In particular, more jobs can be created in the office building scenarios. The parking requirement reductions of the January 2015 proposed ordinance also make all four development scenarios more attractive propositions to developers and the diminished expense of building structured or underground parking spaces is reflected in higher residual land values under the proposed zoning ordinance. In the underground-parked office scenario, the building goes from having a negative residual land value under the existing ordinance to a positive value under the proposed ordinance because the required/necessary number of underground parking spaces is decreased.

Under the structured parking scenarios, a reduction of parking spaces allows more of the building envelope to be filled with leasable uses. In the office building, the proposed ordinance allows for 107 fewer parking spaces, which allows for 38,000 additional square feet of office space in the scenario, creating an additional 109 jobs based on the 250 employees per square foot assumptions used throughout this report (Exhibit II-13). In the apartment building scenario, the parking reduction allows for 29 fewer parking spaces, allowing for an additional 25 apartment units to be built. The office scenario is projected to provide the city with $195,000 in additional tax revenue each year in 2015 dollars and the apartment scenario is projected to provide the city with an additional $71,000 per year.

	SF Rentable	Parking Spaces	Jobs	Residual Land Value per SF	Residual Land Value per Acre	Site Residual Land Value	2015 Tax Revenue
Office Building with Structured Parking							
Old Zoning Code	157,000	322	431	$21.21	$923,889	$1,624,611	$784,890
New Zoning Code	195,000	215	540	$149.64	$6,518,262	$11,462,026	$979,830
Net Change of New Code	**38,000**	**-107**	**109**	**$128.43**	**$5,594,373**	**$9,837,415**	**$194,940**
Office Building with Underground Parking							
Old Zoning Code	270,000	547	754	-$213.60	-$9,304,290	-$16,361,111	$1,364,580
New Zoning Code	270,000	298	754	$19.56	$851,884	$1,497,993	$1,364,580
Net Change of New Code	**0**	**249**	**0**	**$233.15**	**$10,156,174**	**$17,859,104**	**$0**

	Units	Parking Spaces	Jobs	Residual Land Value per SF	Residual Land Value per Unit	Residual Land Value per Acre	Site Residual Land Value	2015 Tax Revenue
Apartment Building with Structured Parking								
Old Zoning Code	140	214	40	$142.89	$36,613	$6,224,500	$10,945,461	$481,060
New Zoning Code	165	185	40	$211.06	$53,809	$9,193,597	$16,166,463	$552,307
Net Change of New Code	**25**	**-29**	**0**	**$68.16**	**$17,196**	**$2,969,097**	**$5,221,003**	**$71,246**
Apartment Building with Underground Parking								
Old Zoning Code	222	386	40	-$32.30	-$8,254	-$1,406,851	-$2,473,875	$714,749
New Zoning Code	222	242	40	$97.56	$24,931	$4,249,543	$7,472,601	$714,749
Net Change of New Code	**0**	**144**	**0**	**$129.85**	**$33,185**	**$5,656,395**	**$9,946,476**	**$0**

Permitting Process Analysis

Task 4 asked RCLCO to evaluate the existing and proposed development permitting processes to identify ways the January 2015 proposed zoning ordinance could be streamlined or improved, including identification of ways in which the proposed permitting process aligns the entitlement and approval process with development phasing and construction timing. Under the proposed zoning ordinance, the City has made strides to address many permitting issues in the existing ordinance—portions of which originate from 1925—with the goal of making the permitting process more streamlined and predictable for neighbors and developers alike. While strides have been made, additional adjustments can improve the proposed ordinance even further and position Somerville's regulations to better understand the development process, allowing the City to capture its fair share of development activity occurring in the greater Boston region over the decades to come.

Methodology

To accomplish this task, RCLCO conducted interviews with local developers, architects, land use attorneys, and City staff to better understand each party's concerns with the existing zoning ordinance, as well as the ways the proposed ordinance could or should address those same concerns.

These individuals cited several shortcomings of the existing zoning ordinance, which include the following:

- **The existing ordinance lacks clarity:** Local developers and architects report that they often encounter inconsistent interpretations of the same zoning regulations from members of the same departments, which creates uncertainty. This is related primarily to any discretionary aspects of the existing ordinance. These stakeholders are looking for the ordinance to be re-written in a manner that eliminates uncertainty so that commonly contested issues are addressed in a consistent and predictable fashion.

- **Communication between administrators is poor under existing permitting processes:** Increased communication between and within the various boards and commissions is needed to standardize the information provided to developers and architects during the permitting process. Last year, the City of Somerville brought on a Zoning Review Planner. This position helped bridge a longstanding gap between the Planning Department and Inspectional Services. RCLCO believes such intermediary positions are particularly useful in clearing up issues of communication.

- **Conflicting interpretations:** Different review boards have conflicting opinions on design related issues. For example, the Historic Preservation Commission (HPC) and the Design Review Committee (DRC) tend to have different visions for the same projects, with the HPC leaning towards historical features and the DRC emphasizing contemporary design. While features of the January 2015 proposed ordinance (such as the form-based building types) are likely to ease this concern in some ways, RCLCO believes the ordinance should be written in a way that leaves less room for personal preferences amongst these boards, while not stifling the creativity of the developers and architects themselves. Alternatively, the ordinance should clarify that the DRC has the exclusive right to make design-related comments, which would eliminate this level of dispute, as well as the resulting nine month delay in cases when the HPC does not approve of more modern design aesthetics. Conversations with local developers suggest they are more concerned about these types of delays than they are about possible delays stemming from actual frequency at which the HPC and DRC meet. A solution, which is already under implementation, is to separate cases so only one review board has jurisdiction over each proposed development which will eliminate this conflict.

- **Demolition Delays:** Adopted in 2003, the Demolition Review Ordinance affects all properties built fifty or more years ago, which comprises the majority of properties in Somerville. As such, this ordinance imposes strict regulations that affect and complicate most projects that occur in

Somerville, regardless of the cultural and communal value of the historical features themselves. A system that pinpoints specific, historically-designated sites is a more efficient way of preserving the vibrant character of Somerville. In general, the National Register of Historic Places (NRHP) functions this way, typically consisting of buildings that meet the same 50-year age requirement that Somerville currently uses, as long as they also meet one or more criteria regarding their historic or architectural significance. RCLCO recommends proactively identifying areas of the city that should be designated Local Historic Districts and amending the Demolition Delay Ordinance to eliminate review by the HPC for properties within the "Areas to Transform" identified in SomerVision.

While the proposed zoning ordinance addresses these concerns in some ways, the developers, architects, and land use attorneys interviewed for this task pointed to new issues that might arise as a result. Their concerns include the following:

- **Developer uncertainty:** Conversations with developers suggest there is widespread confusion over the proposed zoning ordinance and its implementation. Many of these developers are therefore resistant to the proposed zoning ordinance, even in cases when they recognize the merits of the new regulations. Because many developers in Somerville have been working in the area for the majority of their careers, they are accustomed to the existing zoning ordinance. As such, further communication—perhaps in the form of meetings between planning officials and longstanding developers in the region—is necessary so as to clear up any uncertainty regarding the transition from the existing zoning ordinance to the proposed zoning ordinance.

- **Initial neighborhood meeting and document requirements:** Conversations with developers, architects, and land use attorneys in Somerville suggest that requiring an early neighborhood meeting, as well as an initial submission of detailed documents and plans, is likely to result in increased costs. Requiring these items to be developed to a high level of detail at the beginning of the permitting process may result in costly revisions down the line, as well as adding a large amount of upfront time. Instead a more schematic set of sketch plans could be submitted up front saving costs, and the scheduling of the neighborhood meeting which requires coordinating schedules and may take a few weeks to accommodate could happen in the 30 days after the permit is filed and while it is awaiting approval.

- **Form-based regulations:** Local developers, architects, and land use attorneys are concerned that the focus on form-based regulations stifles creativity, and that it detracts from the vibrant character of Somerville, which is deeply rooted in the diverse nature of its buildings. These individuals also expressed concern that the proposed ordinance—which emphasizes higher density and less parking—does not necessarily parallel the vision of community members, many of whom hope that any new development will not add to existing congestion. As such, increased education and public outreach between the planning department and the community is necessary, especially given that form-based codes are typically most efficient when they have widespread public support. Without this support, developers are likely to experience backlash from the community, even when their projects comply fully with the proposed ordinance.

- **By-right development:** Although large-scale by-right development is difficult in Somerville due to its existing residential nature, these types of provisions are very attractive to developers and are therefore economically important to cities. RCLCO believes an increased opportunity for by-right development options may alleviate concerns surrounding the form-based tools of the proposed ordinance, which can then be used in a way that controls the types of by-right development that occur. Further, by-right projects should require fewer neighborhood interactions for developers, as the feedback gathered from these meetings is often unrelated to the project itself and is not fundamentally necessary for the project to progress. These interactions should be substituted with additional exchanges between city staff and community members, so as to ensure that community members understand and accept the vision set forth in SomerVision. If a broad by-right development process is not feasible, at the minimum allowing

by-right development in certain designated commercial zones and special districts may be a compromise and encourage more development in the City's "Areas to Transform."

- **Increased affordable requirement:** Conversations with local developers suggest that the existing zoning ordinance with regard to affordable housing on small parcels is not financially feasible and has the negative outcome of reducing density in the City. The existing zoning ordinance requires 12.5% of units, or one out of every eight units, to be affordable. Therefore, many developers—particularly those working with high-end product—construct seven-unit buildings to avoid constructing an eighth affordable unit. By increasing the required number of affordable units, the proposed ordinance coupled with development costs may continue a pattern of not developing property to its highest potential, thereby resulting in reduced tax revenue for the City, without adding to the City's affordable housing stock.

Based on the comments of local developers, architects, and land use attorneys, RCLCO conducted several case studies to pinpoint ways other communities have addressed similar concerns.

Automated Permit Tracking Systems

Like project coordinators and outside consultants, automated permit tracking systems—while oftentimes costly—increase the transparency and accuracy of permit processes, allowing cities to process more permits at once. Discussions with local developers, architects, and land use attorneys suggest that, while Somerville currently has online permitting capabilities, the system is not widely used with consistency by all departments involved in the permitting process. Further, these individuals stress that while the current system allows for the electronic submission of documents, it does not allow for the easy tracking of these documents, especially in the case of special permits.

Automated permit tracking systems allow applicants and reviewers to submit and monitor the progress of permit applications online, and they typically work best when they provide live status updates to the various parties involved. Online systems are widely used, as they allow cities to increase clarity and the ease with which developers can submit and track permits, all without deregulating the permit process itself.

Training is necessary in order to ensure widespread participation of an automated tracking system, especially in Somerville, where conversations with developers, architects, and land use attorneys suggest participation amongst committee members is inconsistent. Without widespread participation, automated permit tracking systems do not function well, since they still require in-person interactions with the individuals who decide not to use them. In these cases, automated permit tracking systems do little to remedy—and sometimes add to—existing issues of clarity. It is also important to note that automated permit tracking systems are most successful when paired with other zoning-based changes that increase the clarity of the process as a whole.

In 2014, the Inspectional Services Division began implementing an automated permit tracking system for building permits called CitizenServe. RCLCO recommends expanding the use of this system to all types of development review, including site plan review, special permits, and variances regardless of the existing or proposed ordinance.

One-Stop Permit Center

Another way cities have expedited the permitting process involves better coordination between the regulatory bodies involved, as well as between those regulatory bodies and the local developers involved in the permitting process.

Many cities have accomplished this objective by using a one-stop permitting center. The idea was pioneered in Sunnyvale, California in 1985. One-stop-shops accommodate representatives from every department involved in the permitting process, allowing for better coordination between the various

regulatory agencies, as well as for increased transparency with regards to the steps involved in the process as a whole. The integration of these agencies allow cities to cut out any overlapping steps, and increase the speed and promote the efficiency of their permitting processes. For example, the City of St. Louis, Missouri adopted a similar strategy in 1999 and now issues 84% of its building permits on the same day on which they are filed.

Though these same-day permits are often for smaller projects that require modest development or alteration approvals, one-stop-shops are nonetheless relevant to larger, more complicated developments as well. By increasing the speed with which departmental staff processes straightforward projects, one-stop-shops increase the efficiency of the permitting system as a whole, thereby allowing the departments involved to better focus their resources. Further, one-stop-shops facilitate face-to-face interactions between city workers and developers, which often clear up issues of clarity in a shorter duration of time. This suggestion was also included in Zucker's 2010 ISD report, and should be further reviewed for implementation in Somerville.

Critical Assumptions

Our conclusions are based on our analysis of the information available from our own sources and from the client as of the date of this report. We assume that the information is correct, complete, and reliable.

We made certain assumptions about the future performance of the global, national, and local economy and real estate market, and on other factors similarly outside either our control or that of the client. We analyzed trends and the information available to us in drawing these conclusions. However, given the fluid and dynamic nature of the economy and real estate markets, as well as the uncertainty surrounding particularly the near-term future, it is critical to monitor the economy and markets continuously and to revisit the aforementioned conclusions periodically to ensure that they are reflective of changing market conditions.

We assume that the economy and real estate markets will grow at a stable and moderate rate to 2020 and beyond. This covers the bulk of SomerVision which runs through 2030, but it is important to note that the last ten years between 2020-2030 are more difficult to predict because of the number of variables that may change over this period. This is because stable and moderate growth patterns are historically not sustainable over extended periods of time, the economy is cyclical, and real estate markets are typically highly sensitive to business cycles. Further, it is very difficult to predict when an economic and real estate upturn will end.

With the above in mind, we assume that the long-term average absorption rates and price changes will be as projected, realizing that most of the time performance will be either above or below said average rates.

Our analysis does not consider the potential impact of future economic shocks on the national and/or local economy, and does not consider the potential benefits from major "booms" that may occur. Similarly, the analysis does not reflect the residual impact on the real estate market and the competitive environment of such a shock or boom. Also, it is important to note that it is difficult to predict changing consumer and market psychology.

As such, we recommend the close monitoring of the economy and the marketplace, and updating this analysis as appropriate.

Further, the project and investment economics should be “stress tested” to ensure that potential fluctuations in revenue and cost assumptions resulting from alternative scenarios regarding the economy and real estate market conditions will not cause failure.

In addition, we assume that the following will occur in accordance with current expectations:

- Economic, employment, and household growth.
- Other forecasts of trends and demographic and economic patterns, including consumer confidence levels.
- The cost of development and construction.
- Tax laws (i.e., property and income tax rates, deductibility of mortgage interest, and so forth).
- Availability and cost of capital and mortgage financing for real estate developers, owners and buyers.
- Competitive projects will be developed as planned (active and future) and that a reasonable stream of supply offerings will satisfy real estate demand.
- Major public works projects occur and are completed as planned.

Should any of the above change, this analysis should be updated, with the conclusions reviewed accordingly (and possibly revised).

General Limiting Conditions

Reasonable efforts have been made to ensure that the data contained in this study reflect accurate and timely information and are believed to be reliable. This study is based on estimates, assumptions, and other information developed by RCLCO from its independent research effort, general knowledge of the industry, and consultations with the client and its representatives. No responsibility is assumed for inaccuracies in reporting by the client, its agent, and representatives or in any other data source used in preparing or presenting this study. This report is based on information that to our knowledge was current as of the date of this report, and RCLCO has not undertaken any update of its research effort since such date.

Our report may contain prospective financial information, estimates, or opinions that represent our view of reasonable expectations at a particular time, but such information, estimates, or opinions are not offered as predictions or assurances that a particular level of income or profit will be achieved, that particular events will occur, or that a particular price will be offered or accepted. Actual results achieved during the period covered by our prospective financial analysis may vary from those described in our report, and the variations may be material. Therefore, no warranty or representation is made by RCLCO that any of the projected values or results contained in this study will be achieved.

Possession of this study does not carry with it the right of publication thereof or to use the name of "Robert Charles Lesser & Co." or "RCLCO" in any manner without first obtaining the prior written consent of RCLCO. No abstracting, excerpting, or summarization of this study may be made without first obtaining the prior written consent of RCLCO. This report is not to be used in conjunction with any public or private offering of securities or other similar purpose where it may be relied upon to any degree by any person other than the client without first obtaining the prior written consent of RCLCO. This study may not be used for any purpose other than that for which it is prepared or for which prior written consent has first been obtained from RCLCO.

Technical Appendix

LIST OF EXHIBITS

I. TASK 2 – PARCEL UNDERUTILIZATION ANALYSIS

II. TASK 3 – EMPLOYMENT TRENDS

I. TASK 2 – PARCEL UNDERUTILIZATION ANALYSIS

Exhibit I-1

CROWD-SOURCED NEIGHBORHOOD MAP
SOMERVILLE, MASSACHUSETTS
2015

SOURCE: City of Somerville

Exhibit I-2

PARCELS WITH SHORT-TERM REDEVELOPMENT POTENTIAL
SOMERVILLE, MASSACHUSETTS
2015-2030

		Total	Assembly Square	Union Square	Boynton Yards	Davis Square	Duck Village	East Somerville	Hillside	Inner Belt	Magoun Square	Porter Square	Spring Hill	Teele Square	Winter Hill	North Point
Underutilized Parcels with High Development Potential																
Total Parcels Evaluated		221	16	31	39	10	3	21	8	57	3	4	10	2	15	2
Total Parcel Area		11,439,000 SF	2,223,000 SF	1,245,000 SF	936,000 SF	252,000 SF	024,000 SF	235,000 SF	311,000 SF	5,178,000 SF	075,000 SF	086,000 SF	348,000 SF	017,000 SF	375,000 SF	134,000 SF
Total Parcel Acreage		262.6	51.0	28.6	21.5	5.8	0.6	5.4	7.1	118.9	1.7	2.0	8.0	0.4	8.6	3.1
Total Potential Value (Excl. Land)		$12,608,126,000	$2,685,963,000	$1,076,716,000	$1,225,456,000	$158,861,000	$15,866,000	$192,197,000	$160,989,000	$6,363,024,000	$46,459,000	$53,746,000	$187,529,000	$9,193,000	$258,127,000	$174,000,000
Total Potential Value Added		$12,251,752,000	$2,620,177,000	$1,037,837,000	$1,207,928,000	$143,616,000	$15,031,000	$186,002,000	$153,605,000	$6,188,498,000	$45,733,000	$51,005,000	$177,186,000	$8,928,000	$242,206,000	$174,000,000
Total Potential SF		49,712,000.0	10,988,000	4,561,000	4,897,000	763,000	77,000	902,000	777,000	23,438,000	225,000	260,000	902,000	44,000	1,224,000	654,000
Office SF		19,716,466.2	5,935,903	1,120,767	1,277,574	103,418	10,566	131,538	108,150	10,227,173	33,794	37,171	118,274	4,357	182,779	425,000
Retail SF		4,258,007.2	913,075	380,837	283,786	69,893	8,563	94,080	86,056	2,134,643	22,530	27,779	107,116	6,536	123,113	-
Residential Units		21,330	3,230	2,500	2,896	439	48	571	489	9,280	143	164	564	27	776	203
Hotel Keys		1,204	425	175	-	100	-	-	-	503	-	-	-	-	-	-
Potential FAR		4.3	4.9	3.7	5.2	3.0	3.2	3.8	2.5	4.5	3.0	3.0	2.6	2.6	3.3	4.9
Total Potential Jobs																
Office /Laboratory		80,525	25,403	4,483	5,110	414	42	526	433	40,909	135	149	473	17	731	1,700
Retail /Restaurant		8,516	1,826	762	568	140	17	188	172	4,269	45	56	214	13	246	-
Hotel		482	170	70		40				201						
Total Permanent Jobs		**88,763**	**26,639**	**5,315**	**5,678**	**593**	**59**	**714**	**605**	**45,379**	**180**	**204**	**687**	**31**	**977**	**1,700**
Temporary FTE Jobs (Construction)		**78,781**	**17,767**	**5,718**	**7,424**	**1,133**	**111**	**1,325**	**1,133**	**39,177**	**332**	**380**	**1,304**	**61**	**1,802**	**1,114**
Annual Tax Revenue																
Commercial Assessed Value			$1,845,460,369	$390,691,507	$415,102,168	$38,446,397	$4,110,642	$55,296,557	$41,869,017	$3,310,640,635	$12,523,568	$14,159,702	$47,457,000	$2,080,678	$73,635,875	$116,875,000
Commercial Tax Revenue	$20.52 per $,1000 AV	**$130,678,524**	**$37,868,847**	**$8,016,990**	**$8,517,896**	**$788,920**	**$84,350**	**$1,134,685**	**$859,152**	**$67,934,346**	**$256,984**	**$290,557**	**$973,818**	**$42,696**	**$1,511,008**	**$2,398,275**
Residential Assessed Value			$768,611,105	$660,070,280	$810,353,623	$104,562,860	$11,755,491	$136,900,695	$119,119,676	$2,972,581,509	$33,935,105	$39,586,089	$140,072,304	$7,112,536	$184,490,842	$57,125,000
Residential Tax Revenue	$12.61 per $,1000 AV	**$76,243,554**	**$9,692,186**	**$8,323,486**	**$10,218,559**	**$1,318,538**	**$148,237**	**$1,726,318**	**$1,502,099**	**$37,484,253**	**$427,922**	**$499,181**	**$1,766,312**	**$89,689**	**$2,326,430**	**$720,346**
Food and Beverage Retail Sales																
$400 per SF	40% of Retail Sales Food/Bev		$146,091,968	$60,933,927	$45,405,760	$11,182,826	$1,370,152	$15,052,786	$13,768,989	$341,542,879	$3,604,728	$4,444,676	$17,138,543	$1,045,786	$19,698,128	$0
Meals Tax	0.75% Tax Rate	**$5,109,609**	**$1,095,690**	**$457,004**	**$340,543**	**$83,871**	**$10,276**	**$112,896**	**$103,267**	**$2,561,572**	**$27,035**	**$33,335**	**$128,539**	**$7,843**	**$147,736**	**$0**
Hotel Annual Room Sales	$239 ADR, 81.6% Occupancy		30,285,131	12,457,158	-	7,118,376	-	-	-	35,835,522	-	-	-	-	-	-
Hotel's Tax	6.00% Tax Rate	**$5,141,771**	**$1,817,108**	**$747,429**	**$0**	**$427,103**	**$0**	**$0**	**$0**	**$2,150,131**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total Annual Tax Revenue		**$217,173,458**	**$50,473,830**	**$17,544,910**	**$19,076,999**	**$2,618,431**	**$242,863**	**$2,973,899**	**$2,464,519**	**$110,130,302**	**$711,941**	**$823,073**	**$2,868,668**	**$140,228**	**$3,985,174**	**$3,118,621**

SOURCE: RCLCO; City of Somerville; City of Somerville Assessors Database

Exhibit I-2

PARCELS WITH SHORT-TERM REDEVELOPMENT POTENTIAL
SOMERVILLE, MASSACHUSETTS
2015-2030

		Total	Assembly Square	Union Square	Boynton Yards	Davis Square	Duck Village	East Somerville	Hillside	Inner Belt	Magoun Square	Porter Square	Spring Hill	Teele Square	Winter Hill	North Point
Likely Development by 2030 (Near Term)																
Total Parcels Selected		40	4	13	2	2	1	5	1	3	0	1	3	0	3	2
Total Parcel Area		2,788,000 SF	706,000 SF	1,009,000 SF	266,000 SF	059,000 SF	011,000 SF	094,000 SF	017,000 SF	238,000 SF	000,000 SF	024,000 SF	075,000 SF	000,000 SF	155,000 SF	134,000 SF
Total Parcel Acreage		64.0	16.2	23.2	6.1	1.4	0.3	2.2	0.4	5.5	0.0	0.6	1.7	0.0	3.6	3.1
Parcel Area % Share of Total		100%	25%	36%	10%	2%	0%	3%	1%	9%	0%	1%	3%	0%	6%	5%
Built SF as % of Total		100%	30%	33%	11%	2%	0%	3%	0%	8%	0%	1%	2%	0%	4%	6%
Potential Development Square Footage																
Office SF		4,735,803	2,091,134	1,013,282	606,404	15,630	5,556	52,226	4,431	422,500	-	12,033	17,858	-	69,749	425,000
Retail SF		751,828	190,878	291,241	45,351	10,420	3,704	37,780	6,646	84,500	-	8,022	26,787	-	46,499	-
Residential SF	Avg Residential Unit size	5,385,082	933,141	2,326,509	606,909	78,149	27,780	270,018	33,232	338,000	-	60,165	133,937	-	348,744	228,500
Residential Units	1157.8	4,651	819	2,004	534	66	23	228	27	291	-	51	109	-	295	203
Hotel Keys		613	188	175		100				150						
Total Potential Building SF		**11,340,361**	**3,366,403**	**3,772,429**	**1,258,664**	**174,199**	**37,040**	**360,023**	**44,309**	**950,000**	**-**	**80,220**	**178,582**	**-**	**464,992**	**653,500**
Existing Building SF		952,014	198,442	375,312	109,116	35,859	783	38,001	1,470	62,829	-	-	52,729	-	77,473	-
Underutilized Potential SF		**10,388,347**	**3,167,961**	**3,397,117**	**1,149,548**	**138,340**	**36,257**	**322,022**	**42,839**	**887,171**	**-**	**80,220**	**125,853**	**-**	**387,519**	**653,500**
% Potential Space Developed		23%	31%	83%	26%	23%	48%	40%	6%	4%	0%	31%	20%	0%	38%	100%
SF by Type																
% Commercial		52%	72%	38%	52%	55%	25%	25%	25%	64%	0%	25%	25%	0%	25%	65%
% Residential		47%	28%	62%	48%	45%	75%	75%	75%	36%	0%	75%	75%	0%	75%	35%
Office Value		$1,293,340,339	$575,061,850	$275,563,110	$166,761,218	$3,360,416	$1,194,527	$13,575,717	$952,639	$116,187,466	$0	$2,587,082	$3,839,521	$0	$17,381,792	$116,875,000
Retail Value		$173,193,542	$44,545,779	$67,967,685	$10,583,726	$2,431,723	$864,404	$8,505,537	$1,163,106	$19,720,016	$0	$1,872,109	$4,687,787	$0	$10,851,669	$0
Residential Units Value		$1,193,979,860	$170,243,808	$538,615,536	$138,477,994	$15,694,955	$5,579,085	$54,676,568	$7,232,410	$95,062,472	$0	$12,083,068	$29,149,533	$0	$70,039,429	$57,125,000
Hotel Value		$97,172,125	$29,801,565	$25,954,084	$0	$15,851,896	$0	$0	$0	$23,777,845	$0	$0	$0	$0	$0	$0
Potential Assessed Value (Excl. Land)		**$2,760,348,985**	**$824,102,857**	**$908,100,415**	**$315,822,938**	**$37,338,990**	**$7,638,017**	**$76,757,822**	**$9,348,155**	**$254,747,800**	**$0**	**$16,542,259**	**$37,676,841**	**$0**	**$98,272,890**	**$174,000,000**
Existing Assessed Value		$57,753,900	$12,249,200	$28,605,600	$4,392,800	$2,797,300	$190,200	$3,220,100	$105,900	$2,600,700	$0	$34,100	$1,586,300	$0	$1,971,700	$0
Underutilized Potential Value		**$2,702,595,085**	**$811,853,657**	**$879,494,815**	**$311,430,138**	**$34,541,690**	**$7,447,817**	**$73,537,722**	**$9,242,255**	**$252,147,100**	**$0**	**$16,508,159**	**$36,090,541**	**$0**	**$96,301,190**	**$174,000,000**
Annual Tax Revenue																
Commercial Assessed Value		$1,561,919,271	$649,409,195	$369,484,879	$177,344,944	$21,644,035	$2,058,932	$22,081,253	$2,115,745	$159,685,327	$0	$4,459,191	$8,527,308	$0	$28,233,461	$116,875,000
Commercial Tax Revenue	$20.52 per $,1000 AV	**$32,050,583**	**$13,325,877**	**$7,581,830**	**$3,639,118**	**$444,136**	**$42,249**	**$453,107**	**$43,415**	**$3,276,743**	**$0**	**$91,503**	**$174,980**	**$0**	**$579,351**	**$2,398,275**
Residential Assessed Value		$1,193,979,860	$170,243,808	$538,615,536	$138,477,994	$15,694,955	$5,579,085	$54,676,568	$7,232,410	$95,062,472	$0	$12,083,068	$29,149,533	$0	$70,039,429	$57,125,000
Residential Tax Revenue	$12.61 per $,1000 AV	**$15,056,086**	**$2,146,774**	**$6,791,942**	**$1,746,208**	**$197,913**	**$70,352**	**$689,472**	**$91,201**	**$1,198,738**	**$0**	**$152,367**	**$367,576**	**$0**	**$883,197**	**$720,346**
Food and Beverage Retail Sales																
$400 per SF	40% of Retail Sales Food/Bev	$120,292,545	$30,540,480	$46,598,482	$7,256,177	$1,667,183	$592,634	$6,044,812	$1,063,411	$13,519,996	$0	$1,283,514	$4,285,977	$0	$7,439,879	$0
Meals Tax	0.75% Tax Rate	**$902,194**	**$229,054**	**$349,489**	**$54,421**	**$12,504**	**$4,445**	**$45,336**	**$7,976**	**$101,400**	**$0**	**$9,626**	**$32,145**	**$0**	**$55,799**	**$0**
Hotel Annual Room Sales	$300 ADR, 65% Occupancy	$43,630,275	$13,380,900	$12,455,625	$0	$7,117,500	$0	$0	$0	$10,676,250	$0	$0	$0	$0	$0	$0
Hotel's Tax	6.00% Tax Rate	**$2,617,817**	**$802,854**	**$747,338**	**$0**	**$427,050**	**$0**	**$0**	**$0**	**$640,575**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total Annual Tax Revenue		**$50,626,680**	**$16,504,559**	**$15,470,598**	**$5,439,747**	**$1,081,603**	**$117,046**	**$1,187,915**	**$142,591**	**$5,217,456**	**$0**	**$253,496**	**$574,701**	**$0**	**$1,518,347**	**$3,118,621**
Summary of Total Employment																
Office	250 SF per employee	19,939	9,360	4,053	2,426	63	22	209	18	1,690	-	48	71	-	279	1,700
Retail	500 SF per employee	1,504	382	582	91	21	7	76	13	169	-	16	54	-	93	-
Hotel	0.4 Employees per key	245	75	70	-	40	-	-	-	60	-	-	-	-	-	-
Jobs Added		**21,688**	**9,817**	**4,706**	**2,516**	**123**	**30**	**284**	**31**	**1,919**	**-**	**64**	**125**	**-**	**372**	**1,700**
Temporary Construction Employment		**16,436**	**5,534**	**4,572**	**1,665**	**266**	**55**	**528**	**62**	**1,588**	**-**	**118**	**250**	**-**	**685**	**1,114**

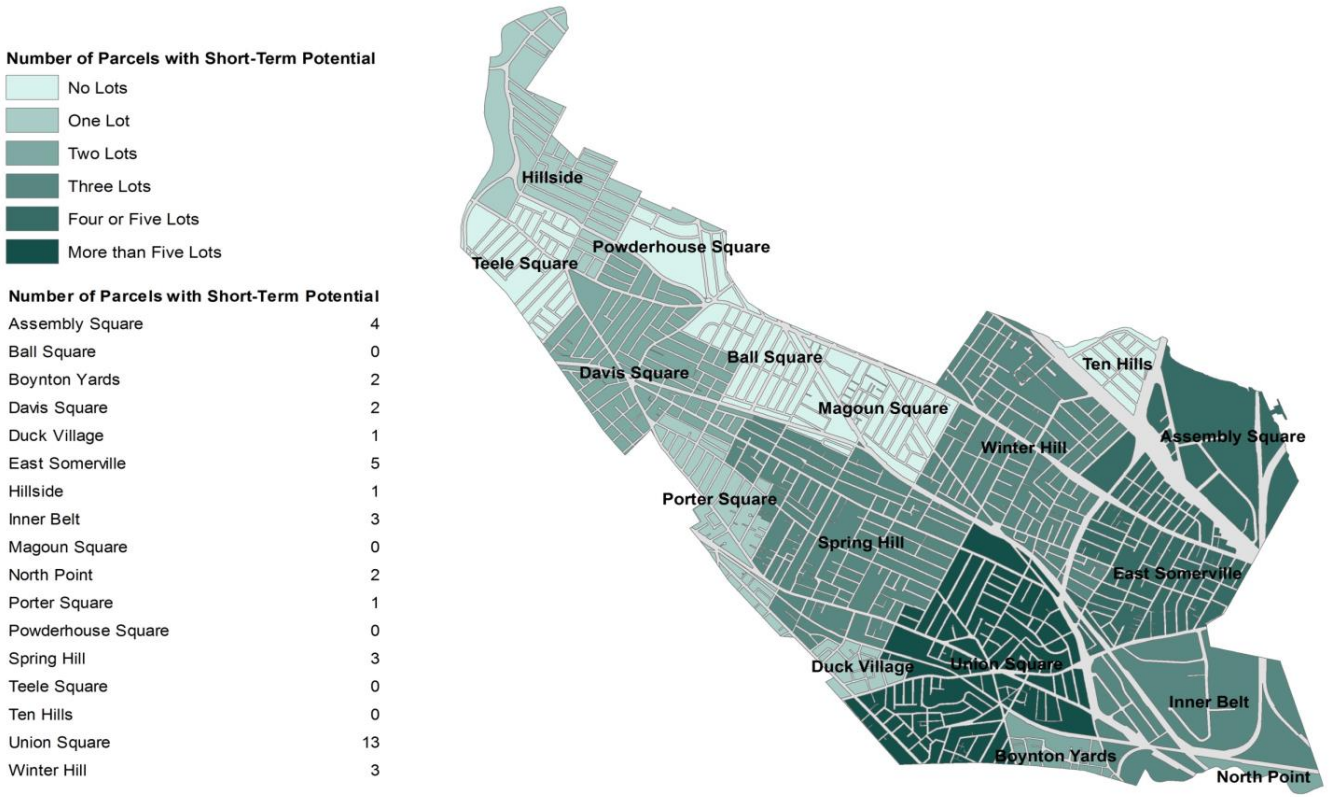
SOURCE: RCLCO; City of Somerville; City of Somerville Assessors Database

RCLCO
ROBERT CHARLES LESSER & CO.

Exhibit I-3

PARCELS WITH SHORT-TERM REDEVELOPMENT POTENTIAL
SOMERVILLE, MASSACHUSETTS
2015-2030

Number of Parcels with Short-Term Potential for Redevelopment (By 2030) in Somerville



Number of Parcels with Short-Term Potential	
Assembly Square	4
Ball Square	0
Boynton Yards	2
Davis Square	2
Duck Village	1
East Somerville	5
Hillside	1
Inner Belt	3
Magoun Square	0
North Point	2
Porter Square	1
Powderhouse Square	0
Spring Hill	3
Teele Square	0
Ten Hills	0
Union Square	13
Winter Hill	3

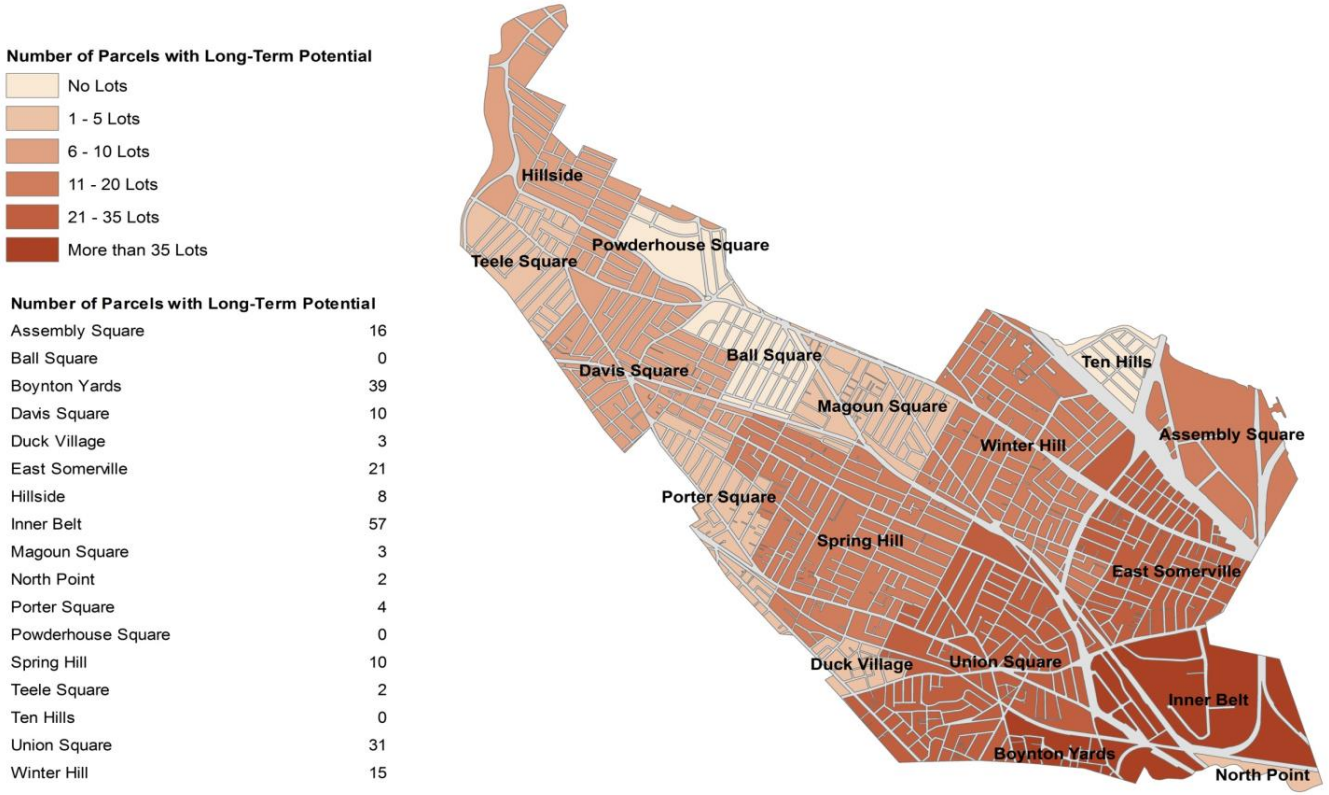
SOURCE: RCLCO

RCLCO
ROBERT CHARLES LESSER & CO.

Exhibit I-4

PARCELS WITH LONG-TERM REDEVELOPMENT POTENTIAL
SOMERVILLE, MASSACHUSETTS
2030+

Number of Parcels with Long-Term Potential for Redevelopment (After 2030) in Somerville



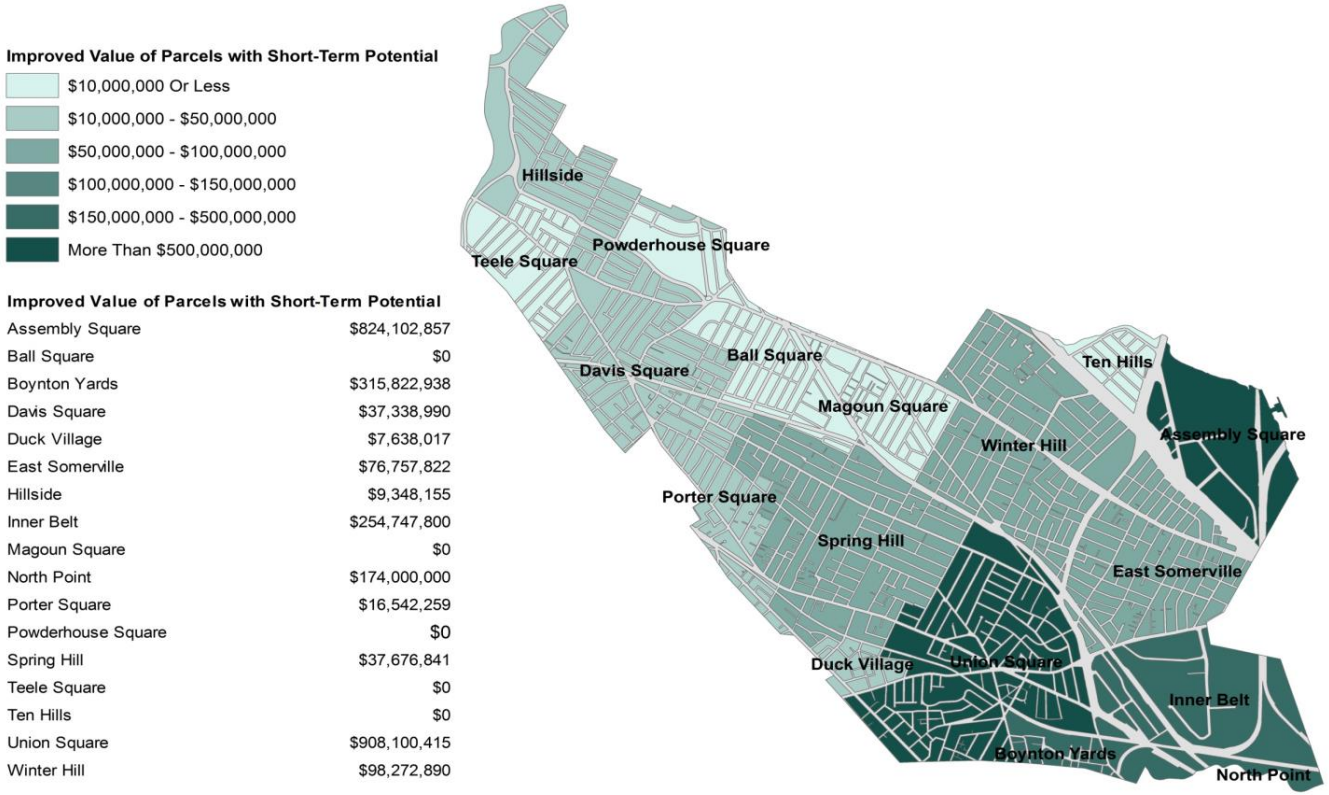
Number of Parcels with Long-Term Potential	
Assembly Square	16
Ball Square	0
Boynton Yards	39
Davis Square	10
Duck Village	3
East Somerville	21
Hillside	8
Inner Belt	57
Magoun Square	3
North Point	2
Porter Square	4
Powderhouse Square	0
Spring Hill	10
Teele Square	2
Ten Hills	0
Union Square	31
Winter Hill	15

SOURCE: RCLCO

Exhibit I-5

POTENTIAL IMPROVED VALUE OF PARCELS WITH SHORT-TERM POTENTIAL
SOMERVILLE, MASSACHUSETTS
2015-2030

Potential Improved Value of Parcels with Short-Term Potential for Redevelopment (By 2030) in Somerville



Improved Value of Parcels with Short-Term Potential	
Assembly Square	$824,102,857
Ball Square	$0
Boynton Yards	$315,822,938
Davis Square	$37,338,990
Duck Village	$7,638,017
East Somerville	$76,757,822
Hillside	$9,348,155
Inner Belt	$254,747,800
Magoun Square	$0
North Point	$174,000,000
Porter Square	$16,542,259
Powderhouse Square	$0
Spring Hill	$37,676,841
Teele Square	$0
Ten Hills	$0
Union Square	$908,100,415
Winter Hill	$98,272,890

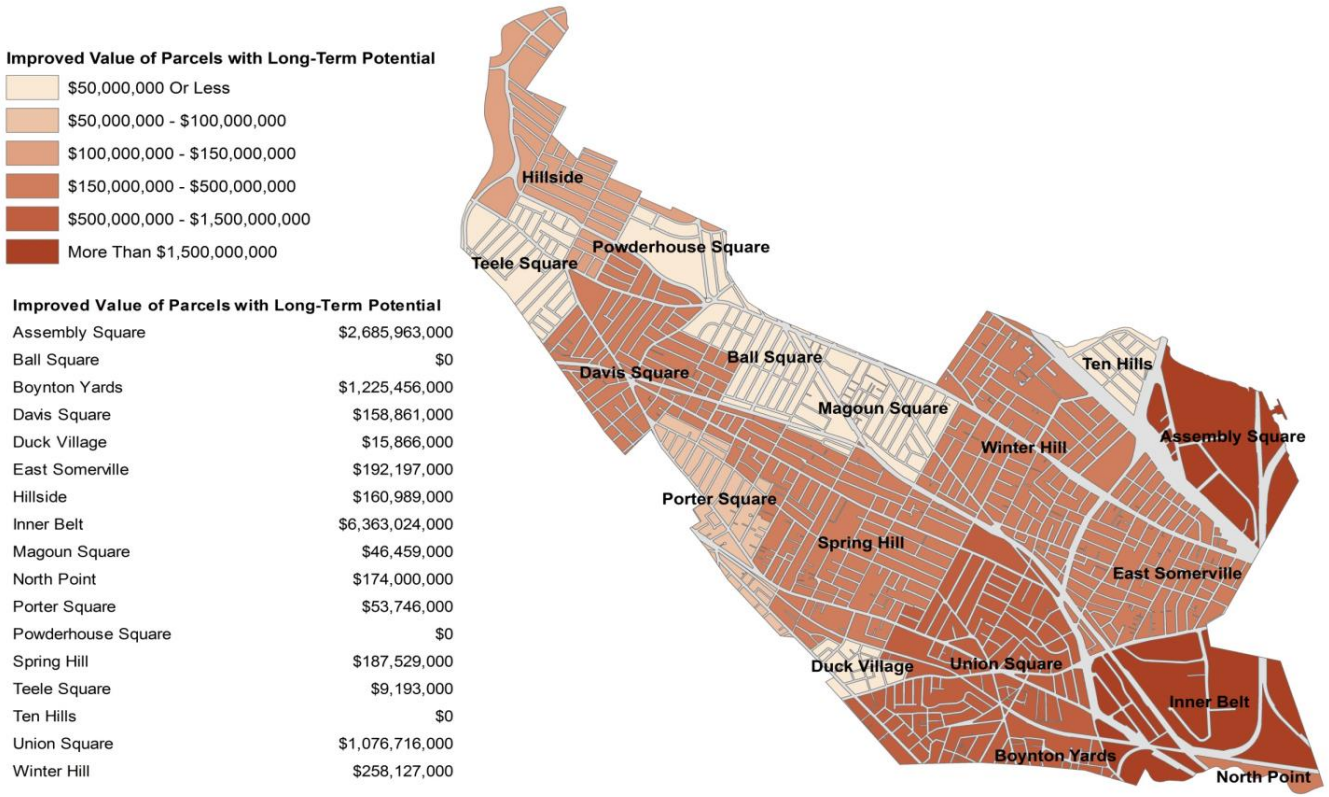
SOURCE: RCLCO

RCLCO
ROBERT CHARLES LESSER & CO.

Exhibit I-6

POTENTIAL IMPROVED VALUE OF PARCELS WITH LONG-TERM POTENTIAL
SOMERVILLE, MASSACHUSETTS
2030+

Potential Improved Value of Parcels with Long-Term Potential for Redevelopment (After 2030) in Somerville



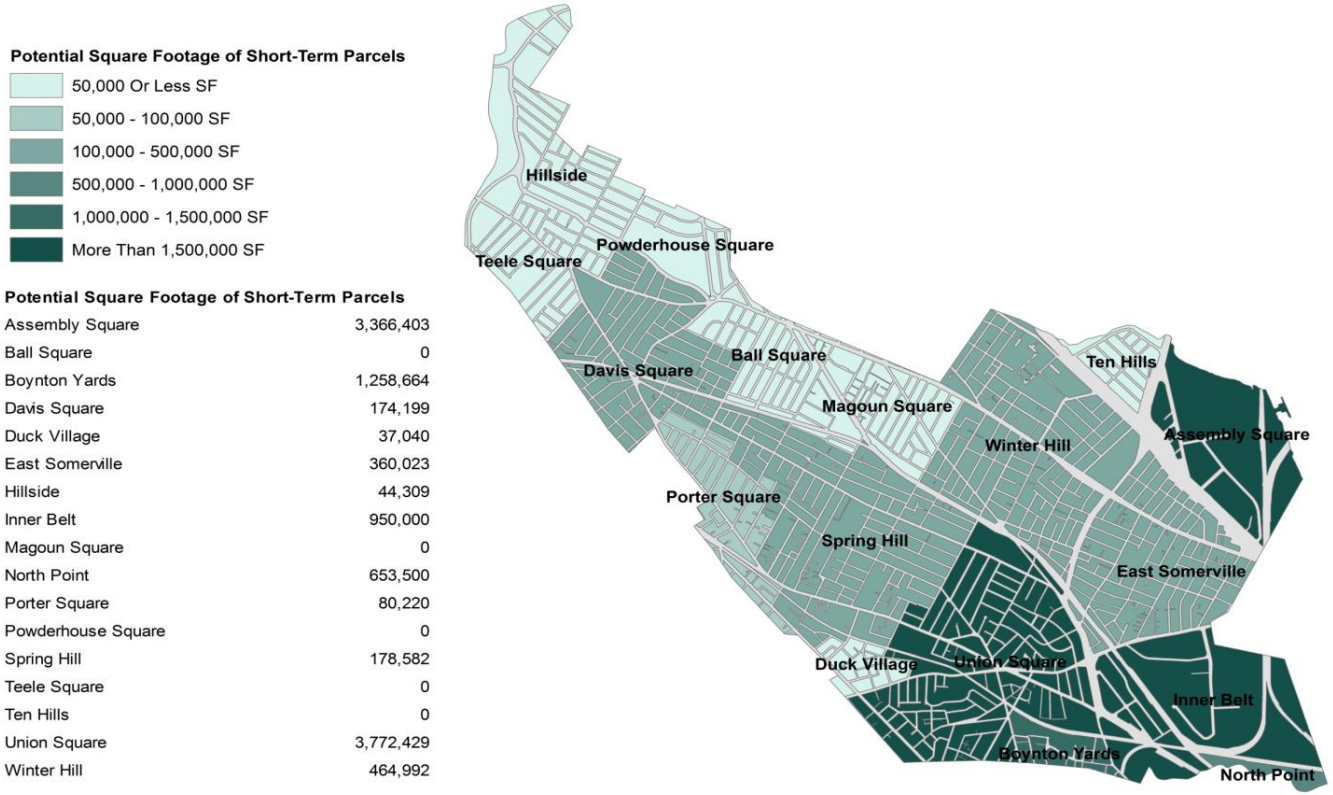
Improved Value of Parcels with Long-Term Potential	
Assembly Square	$2,685,963,000
Ball Square	$0
Boynton Yards	$1,225,456,000
Davis Square	$158,861,000
Duck Village	$15,866,000
East Somerville	$192,197,000
Hillside	$160,989,000
Inner Belt	$6,363,024,000
Magoun Square	$46,459,000
North Point	$174,000,000
Porter Square	$53,746,000
Powderhouse Square	$0
Spring Hill	$187,529,000
Teele Square	$9,193,000
Ten Hills	$0
Union Square	$1,076,716,000
Winter Hill	$258,127,000

SOURCE: RCLCO

Exhibit I-7

POTENTIAL SQUARE FOOTAGE OF PARCELS WITH SHORT-TERM POTENTIAL
SOMERVILLE, MASSACHUSETTS
2015-2030

Potential Square Footage of Parcels with Short-Term Potential for Redevelopment (Before 2030) in Somerville



Potential Square Footage of Short-Term Parcels

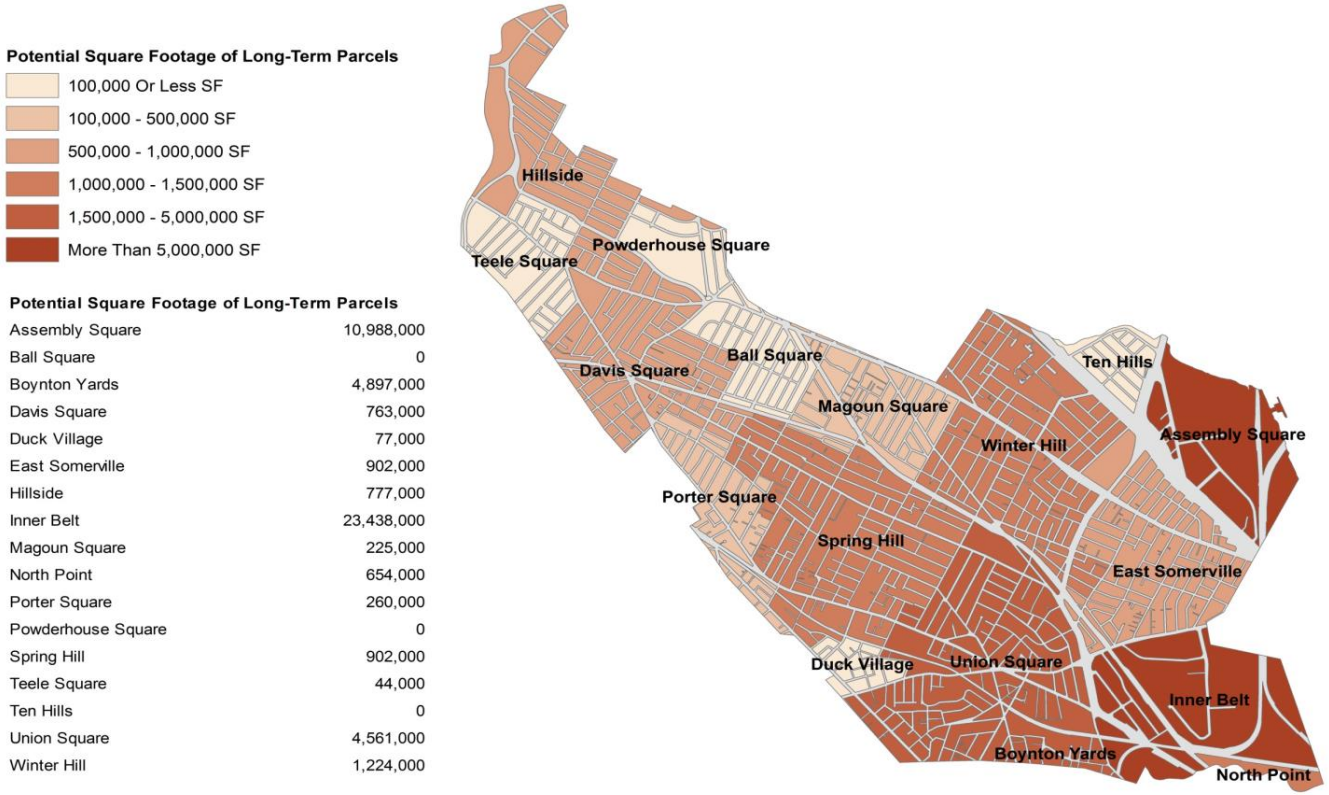
Assembly Square	3,366,403
Ball Square	0
Boynton Yards	1,258,664
Davis Square	174,199
Duck Village	37,040
East Somerville	360,023
Hillside	44,309
Inner Belt	950,000
Magoun Square	0
North Point	653,500
Porter Square	80,220
Powderhouse Square	0
Spring Hill	178,582
Teele Square	0
Ten Hills	0
Union Square	3,772,429
Winter Hill	464,992

SOURCE: RCLCO

Exhibit I-8

POTENTIAL SQUARE FOOTAGE OF PARCELS WITH LONG-TERM POTENTIAL
SOMERVILLE, MASSACHUSETTS
2030+

Potential Square Footage of Parcels with Long-Term Potential for Redevelopment (After 2030) in Somerville



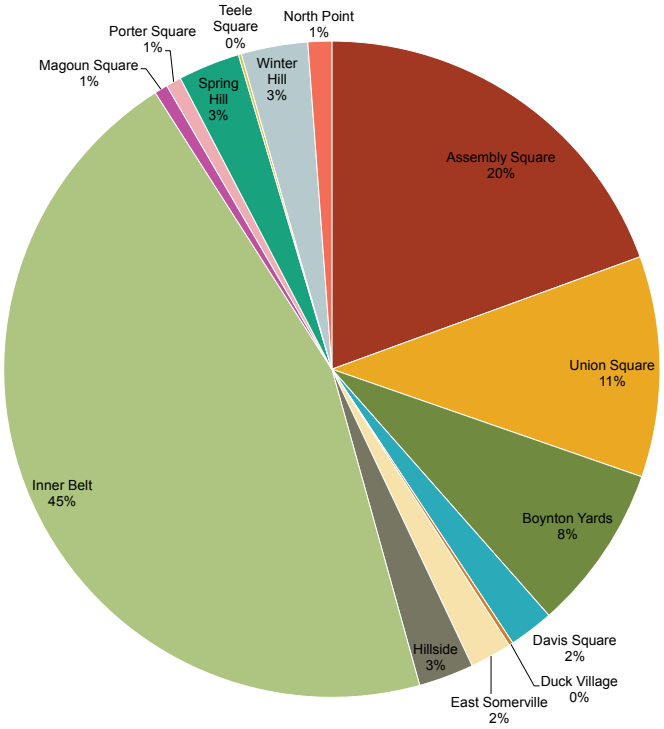
Potential Square Footage of Long-Term Parcels	
Assembly Square	10,988,000
Ball Square	0
Boynton Yards	4,897,000
Davis Square	763,000
Duck Village	77,000
East Somerville	902,000
Hillside	777,000
Inner Belt	23,438,000
Magoun Square	225,000
North Point	654,000
Porter Square	260,000
Powderhouse Square	0
Spring Hill	902,000
Teele Square	44,000
Ten Hills	0
Union Square	4,561,000
Winter Hill	1,224,000

SOURCE: RCLCO

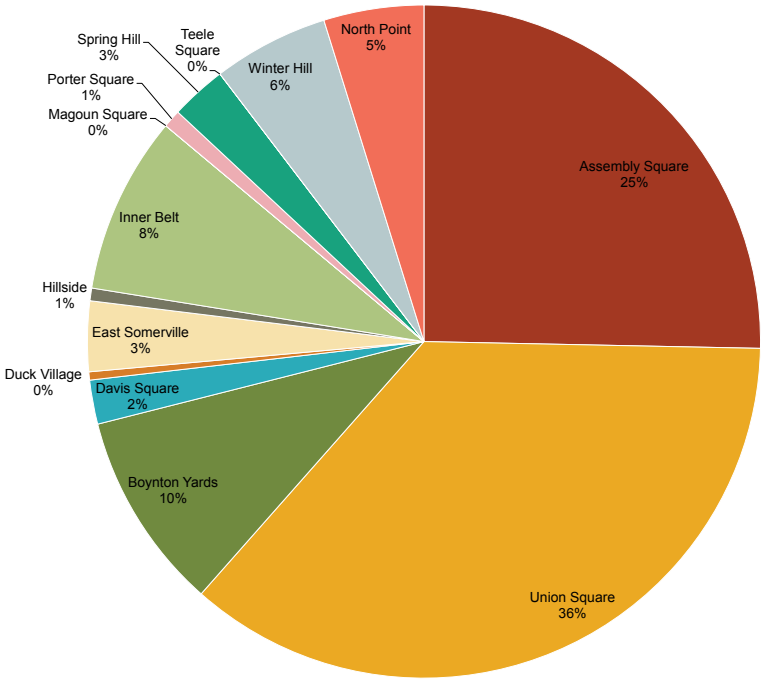
Exhibit I-9

DISTRIBUTION OF LAND AREA WITH POTENTIAL FOR REDEVELOPMENT
SOMERVILLE, MASSACHUSETTS
2015-2030 and 2030+

Distribution of Land Area with Long-Term Potential for Redevelopment



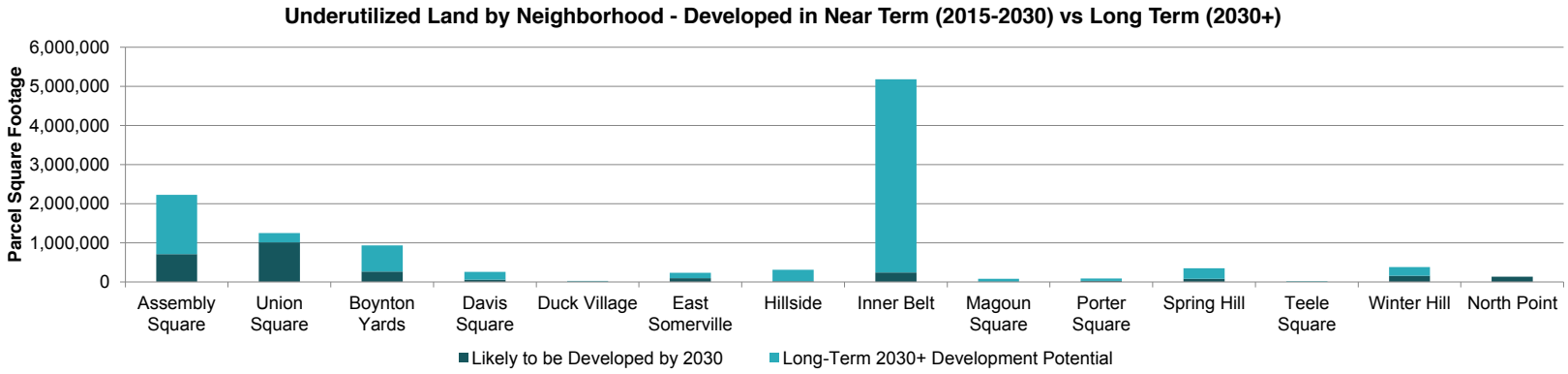
Distribution of Land Area with Near-Term Potential for Redevelopment

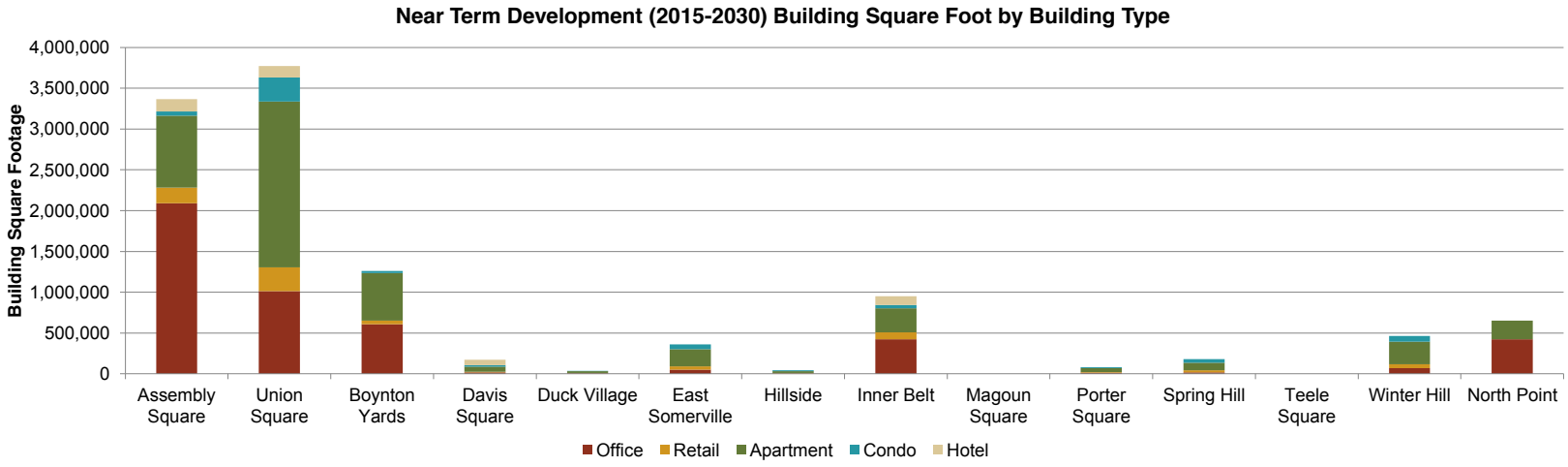


SOURCE: RCLCO

Exhibit I-10

DISTRIBUTION OF POTENTIAL REDEVELOPMENT
SOMERVILLE, MASSACHUSETTS
2015-2030 and 2030+





SOURCE: RCLCO

Exhibit I-11

REVITALIZATION PARCELS IN UNION SQUARE
SOMERVILLE, MASSACHUSETTS
NOVEMBER 2015

SOURCE: RCLCO

Exhibit I-12

ASSUMPTION TABLE
SOMERVILLE, MASSACHUSETTS
NOVEMBER 2015

VALUES		
Office PSF	$	242
Low Rise	$	215
High Rise	$	275
Retail PSF		
Ground Floor Stick	$	175
Podium	$	233
Residential Apartment Unit		
Stick	$	197,582
High Rise	$	281,250
Residential PSF		
Stick over Podium	$	176
High Rise	$	250
Residential Condo PSF		
Stick	$	302
High Rise	$	500
Hotel Key	$	158,519
Hotel PSF	$	226

SIZE	
Average Apt Unit Size	900
Apartment Effficiency	80%
Average Condo Unit Size	1264
Condo Efficiency	85%
Hotel Size per Key	350
Hotel Efficiency	50%

EMPLOYMENT	
Permanent	
Office (SF/Employeee)	250
Retail Jobs (SF/Job)	500
Soft Goods and other Retail	550
Restaurant/Bar	450
Hotels (Job/Key)	0.4
Residential Jobs per Unit	
Temporary	
Construction Jobs per $1M	8.0

CONSTRUCTION COSTS		
Office PSF		
Stick	$	175
High Rise	$	220
Retail PSF		
Stick	$	175
Podium	$	200
Residential PSF		
Stick	$	175
High Rise	$	200
Hotel PSF	$	200

RETAIL SF*	
Soft Goods and other Retail	60%
Restaurant/Food Bev	40%

ZONING TYPE			
10MU			**TYPE**
Commercial		**25%**	
	Office	20%	High Rise
	Retail	5%	Podium
Residential		**75%**	
	Apartment	70%	High Rise
	Condo	5%	High Rise
7MU			**TYPE**
Commercial		**25%**	
	Office	20%	High Rise
	Retail	5%	Podium
Residential		**75%**	
	Apartment	70%	High Rise
	Condo	5%	High Rise
5MU			**TYPE**
Commercial		**25%**	
	Office	15%	High Rise
	Retail	10%	Podium
Residential		**75%**	
	Apartment	60%	Stick
	Condo	15%	Stick

ZONING TYPE			
4MU			**TYPE**
Commercial		**25%**	
	Office	15%	Low Rise
	Retail	10%	Podium
	+ Hotel	70,000	SF
Residential		**75%**	
	Apartment	60%	Stick
	Condo	15%	Stick
3MU			**TYPE**
Commercial		**25%**	
	Office	10%	Low Rise
	Retail	15%	Ground Floor Stick
Residential		**75%**	
	Apartment	50%	Stick
	Condo	25%	Stick
ASQ			**TYPE**
Commercial		**60%**	
	Office	50%	High Rise
	Retail	10%	Podium
	+ Hotel	140,000	SF
Residential		**40%**	
	Apartment	30%	Stick
	Condo	10%	Stick
IB/BB/GJ			**TYPE**
Commercial		**60%**	
	Office	50%	High Rise
	Retail	10%	Podium
Residential		**40%**	
	Apartment	35%	Stick
	Condo	5%	Stick

* Retail employment has been rounded to 45% restaurant and 55% other soft goods and retail because of different square footage per employee assumptions.
SOURCE: RCLCO; Comperable Properties; Broker and Developer Interviews; City provided assumptions,

Exhibit I-13

ASSESSED VALUES OF COMPARABLE PROPERTIES
SOMERVILLE, MASSACHUSETTS AND CAMBRIDGE, MASSACHUSETTS
NOVEMBER 2015

BUILDING	YEAR BUILT	LIVING AREA SQ. FT OR UNITS	GROSS AREA	TOTAL ASSESSED VALUE	TOTAL IMPROVED VALUE	VALUE/SF OR VALUE/UNIT
Freestanding Office						
200 Innerbelt Road Somerville, MA	2000	193,848	194,685	$30,789,000	$18,878,900	$97.39
40 Holland St Somerville, MA	1985	101,257	127,188	$33,681,300	$25,736,500	$254.17
212 Elm Street Somerville, MA	1989	82,802		$18,482,400	$12,850,300	$155.19
2067 Mass Ave Cambridge, MA	1890	103,930		$23,656,000	$17,427,200	$167.68
200 Cambridge Discovery Park Cambridge, MA	2010	218,250		$54,000,000	$44,390,100	$203.39
8 Education Street Cambridge, MA	2014	243,293		$93,906,400	$72,514,200	$298.05
One Broadway Cambridge, MA	1969	307,198		$93,928,200	$66,305,300	$215.84
360 Binney Street Cambridge, MA	2002	333,428		$168,364,200	$141,943,400	$425.71
650 E Kendall Street Cambridge, MA	2009	280,848		$119,305,500	$101,347,900	$360.86
AVERAGE	**1985**	**207,206**		**$70,679,222**	**$55,710,422**	**$242**
					Low-rise stick	**$215 per SF**
					High-rise	**$275 per SF**

SOURCE: RCLCO; CoStar; City of Somerville Assessor Database

Exhibit I-13

ASSESSED VALUES OF COMPARABLE PROPERTIES
SOMERVILLE, MASSACHUSETTS AND CAMBRIDGE, MASSACHUSETTS
NOVEMBER 2015

BUILDING	YEAR BUILT	LIVING AREA SQ. FT OR UNITS	GROSS AREA	TOTAL ASSESSED VALUE	TOTAL IMPROVED VALUE	VALUE/SF OR VALUE/UNIT
Freestanding Apartment						
Avalon at Assembly Row 333 Great River Road Somerville, MA	2014	195		$52,844,500	$47,601,426	$244,110
Windsor at Maxwell's Green 1 Maxwells Green Somerville, MA	2012	184		$40,262,700	$30,935,100	$168,126
Third Square Apartments 285 Third Street Cambridge, MA	2009	482		$121,038,900	$121,038,900	$251,118
AVERAGE	**2013**	**278**		**$80,650,800**	**$66,525,142**	**$239,416**
					Stick built up to 6 stories	**$197,582**
					High-rise	**$281,250**
					Stick built up to 6 stories	**$176 per SF**
					High rise	**$250 per SF**

SOURCE: RCLCO; CoStar; City of Somerville Assessor Database

Exhibit I-13

ASSESSED VALUES OF COMPARABLE PROPERTIES
SOMERVILLE, MASSACHUSETTS AND CAMBRIDGE, MASSACHUSETTS
NOVEMBER 2015

BUILDING	YEAR BUILT	LIVING AREA SQ. FT OR UNITS	GROSS AREA	TOTAL ASSESSED VALUE	TOTAL IMPROVED VALUE	VALUE/SF OR VALUE/UNIT
Freestanding Hotel						
Holiday Inn Express 250-258 Monsignor Obrien Highway Cambridge, MA	1997	112		$17,500,000	$13,608,600	$121,505
Hampton Inn 191 Monsignor Obrien Highway Cambridge, MA	2002	114		$18,000,000	$13,007,700	$114,103
Residence Inn 6 Cambridge Center Cambridge, MA	1999	221		$56,000,000	$40,725,500	$184,278
AVERAGE	**1994**	**156**		**$23,093,620**	**$17,208,220**	**$158,519** **$226 per SF**

SOURCE: RCLCO; CoStar; City of Somerville Assessor Database

Exhibit I-13

ASSESSED VALUES OF COMPARABLE PROPERTIES
SOMERVILLE, MASSACHUSETTS AND CAMBRIDGE, MASSACHUSETTS
NOVEMBER 2015

BUILDING	YEAR BUILT	LIVING AREA SQ. FT OR UNITS	GROSS AREA	TOTAL ASSESSED VALUE	TOTAL IMPROVED VALUE	VALUE/SF OR VALUE/UNIT
Freestanding Retail						
Stop & Shop 779 McGrath Highway Somerville, MA	2004	79,872		$13,991,000		$175
Cambridgeside Galleria 100 Cambridgeside Place Cambridge, MA	1991	734,463		$215,952,900		$294
1771-1773 Massachusetts Avenue Multi-Tenant Strip Building Cambridge, MA	1920	6,190		$1,671,600		$270
199-201B Highland Avenue Multi-Tenant Strip Building Somerville, MA	1920 (Renovated 2004)	3,077		$597,700		$194
AVERAGE	**1966**	**205,901**		**$58,053,300**		**$233**
					Stick-Built	**$175**

SOURCE: RCLCO; CoStar; City of Somerville Assessor Database

Exhibit I-13

ASSESSED VALUES OF COMPARABLE PROPERTIES
SOMERVILLE, MASSACHUSETTS AND CAMBRIDGE, MASSACHUSETTS
NOVEMBER 2015

BUILDING	YEAR BUILT	LIVING AREA SQ. FT OR UNITS	GROSS AREA	TOTAL ASSESSED VALUE	TOTAL IMPROVED VALUE	VALUE/SF OR VALUE/UNIT
Residential Condos						
Brickbottom Lofts 1 Fitchburg Street Somerville, MA	1880	975		$303,700		$311
Urbanica 50 50 Bow Street Somerville, MA	1874	1,421		$523,000		$368
Osgood Lofts 27 Osgood Street #1 Somerville, MA	2005	1,147		$447,000		$390
2-6 Arlington Street Unit 6/12 Camridge, MA	N/A	1,469		$565,300		$385
1716 Cambridge Street Unit 25 Cambridge, MA	N/A	940		$405,300		$431
AVERAGE	**1920**	**1,190**		**$448,860**	**80% Efficiency**	**$302**

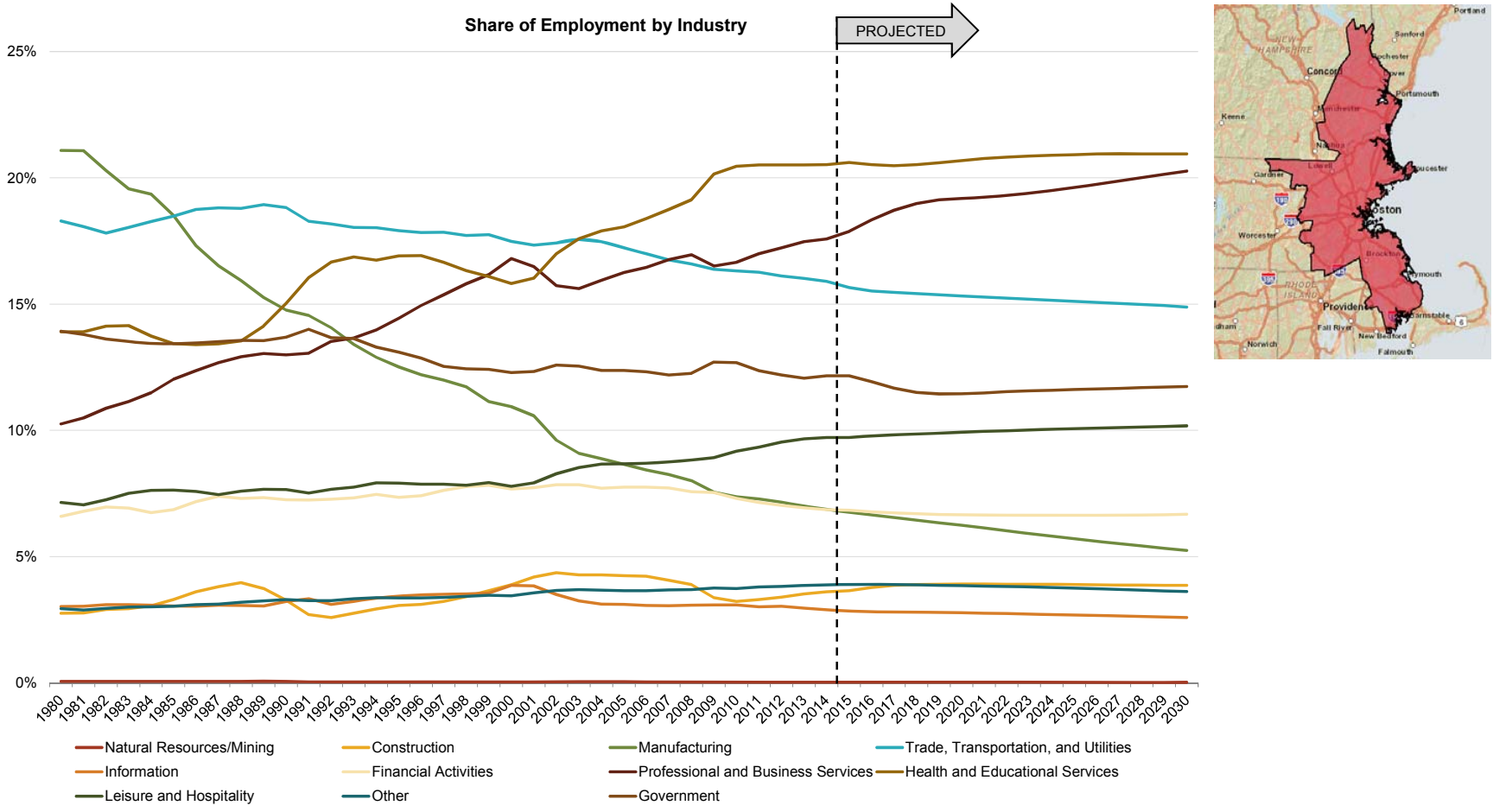
SOURCE: RCLCO; CoStar; City of Somerville and City of Cambridge's Assessors Databases

II. TASK 3 – EMPLOYMENT TRENDS

CITY OF SOMERVILLE

Exhibit II-1A

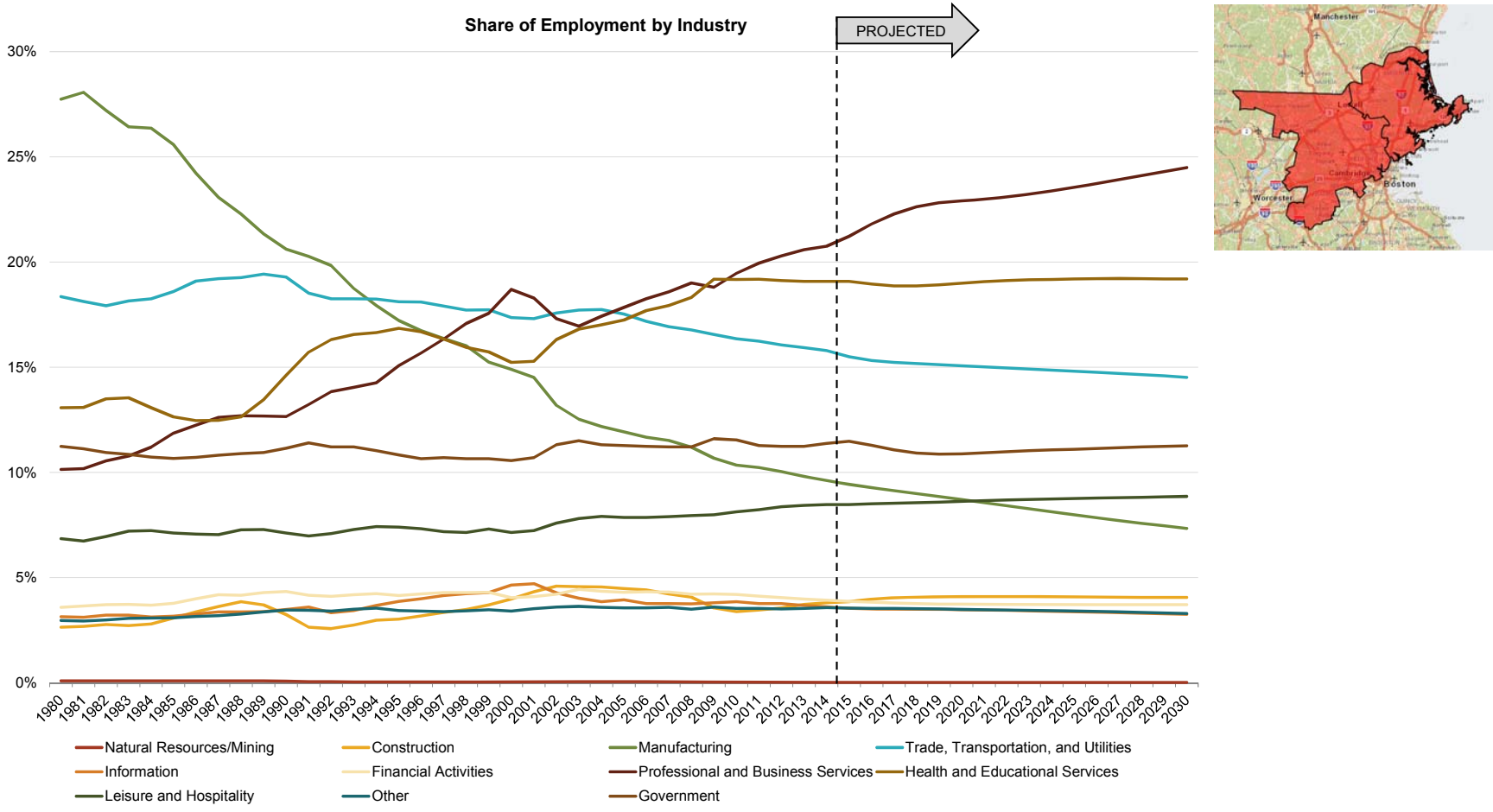
SHARE OF EMPLOYMENT BY INDUSTRY
BOSTON-CAMBRIDGE-NEWTON, MA-NH METROPOLITAN STATISTICAL AREA
1980-2030



SOURCE: Moody's

Exhibit II-1B

SHARE OF EMPLOYMENT BY INDUSTRY
CAMBRIDGE-NEWTON-FRAMINGHAM, MA METROPOLITAN DIVISION
1980-2030



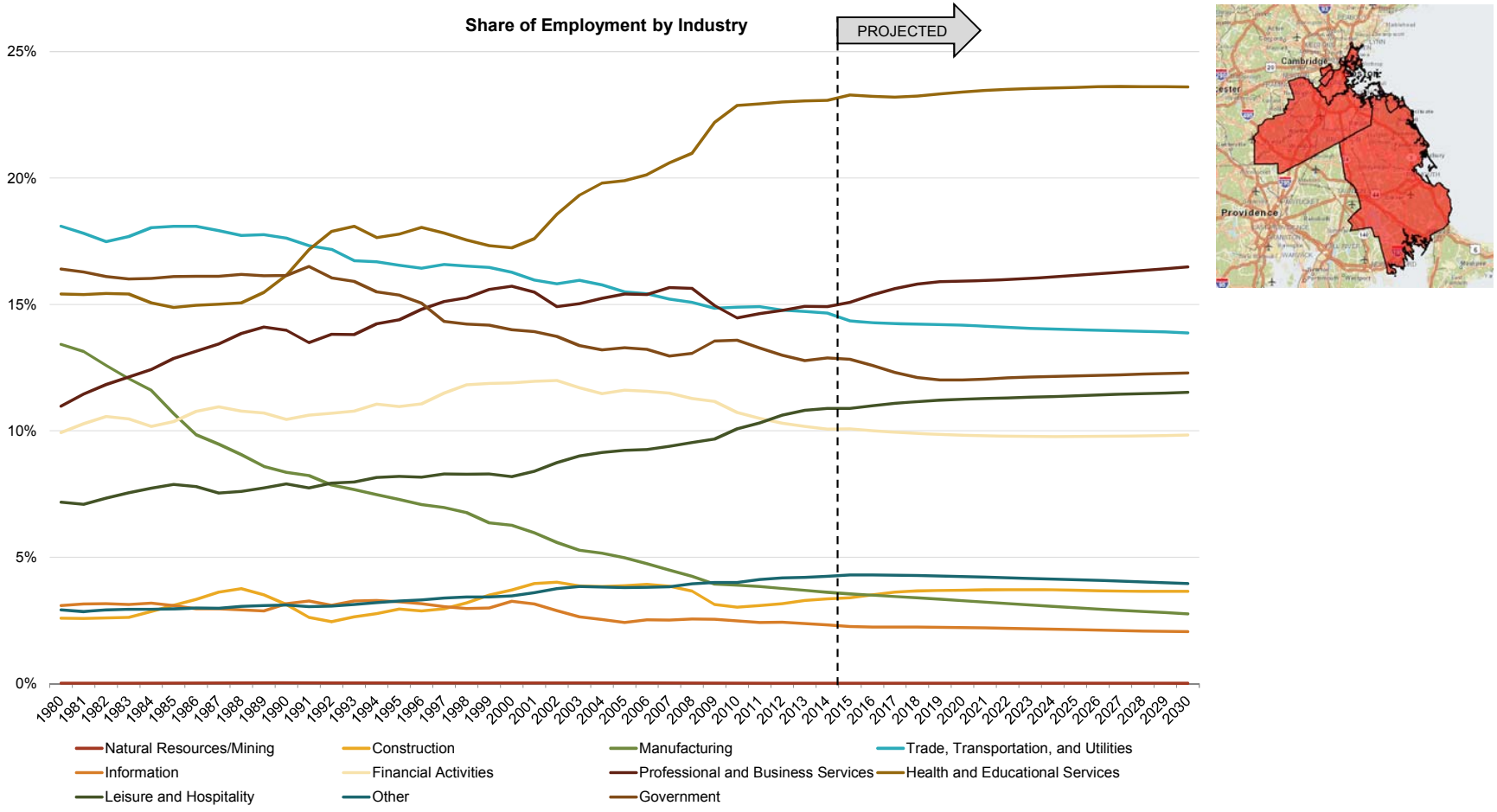
SOURCE: Moody's

RCLCO
ROBERT CHARLES LESSER & CO.

CITY OF SOMERVILLE

Exhibit II-1C

SHARE OF EMPLOYMENT BY INDUSTRY SECTOR
BOSTON, MA METROPOLITAN DIVISION
1980-2030



SOURCE: Moody's

RCLCO
ROBERT CHARLES LESSER & CO.

CITY OF SOMERVILLE

Exhibit II-2

FAIR SHARE OF EMPLOYMENT GROWTH
BOSTON MSA, CITY OF SOMERVILLE, AND CITY OF CAMBRIDGE
2015-2014

Total Employment

	Boston MSA[2]	Somerville[1]	Somerville Share Total MSA Employment	Cambridge	Cambridge Share Total MSA Employment
2001	2,506,850	22,948	0.92%	113,465	4.53%
2002	2,434,098	22,098	0.91%	105,662	4.34%
2003	2,376,836	21,898	0.92%	103,177	4.34%
2004	2,372,525	21,411	0.90%	99,591	4.20%
2005	2,394,480	21,038	0.88%	102,272	4.27%
2006	2,428,222	21,102	0.87%	105,311	4.34%
2007	2,465,879	21,451	0.87%	107,730	4.37%
2008	2,484,195	21,856	0.88%	108,544	4.37%
2009	2,404,562	21,082	0.88%	106,405	4.43%
2010	2,412,363	21,258	0.88%	105,861	4.39%
2011	2,439,734	22,402	0.92%	105,628	4.33%
2012	2,480,047	23,031	0.93%	108,330	4.37%
2013	2,520,999	23,407	0.93%	111,498	4.42%
2014	2,564,143	25,153	0.98%	111,587	4.35%
2005-2015 AVERAGE	**2,459,462**	**22,178**	**0.90%**	**107,317**	**4.36%**

Employment Growth - Somerville & Boston MSA

	Somerville	Boston MSA	Somerville Share Total MSA Employment Growth[3]	Somerville Fair Share of Growth
2001-2002	-850	-72,753	-	-
2002-2003	-200	-57,261	-	-
2003-2004	-487	-4,312	-	-
2004-2005	-373	21,956	-	-
2005-2006	64	33,742	0.19%	0.22
2006-2007	349	37,657	0.93%	1.07
2007-2008	405	18,316	2.21%	2.54
2008-2009	-774	-79,633	-	-
2009-2010	176	7,802	2.26%	2.57
2010-2011	1,144	27,371	4.18%	4.74
2011-2012	629	40,312	1.56%	1.70
2012-2013	376	40,952	0.92%	0.99
2013-2014	1,746	43,145	4.05%	4.36
2005-2014 TOTAL	**3,742**	**191,619**	**2.0%**	**2.2**

Employment Growth - Cambridge & Boston MSA

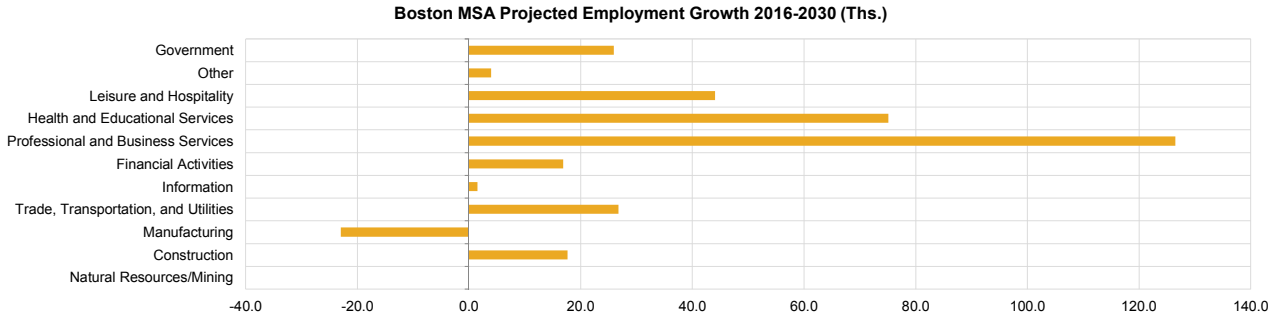
	Cambridge	Boston MSA	Cambridge Share Total MSA Employment Growth[3]	Cambridge Fair Share of Growth
2001-2002	-7,803	-72,753	-	-
2002-2003	-2,485	-57,261	-	-
2003-2004	-3,586	-4,312	-	-
2004-2005	2,681	21,956	12.21%	2.86
2005-2006	3,039	33,742	9.01%	2.08
2006-2007	2,419	37,657	6.42%	1.47
2007-2008	814	18,316	4.44%	1.02
2008-2009	-2,139	-79,633	-	-
2009-2010	-544	7,802	-	-
2010-2011	-233	27,371	-	-
2011-2012	2,702	40,312	6.70%	1.53
2012-2013	3,168	40,952	7.74%	1.75
2013-2014	89	43,145	0.21%	0.05
2005-2014 NET TOTAL	**11,996**	**191,619**	**6.3%**	**1.4**

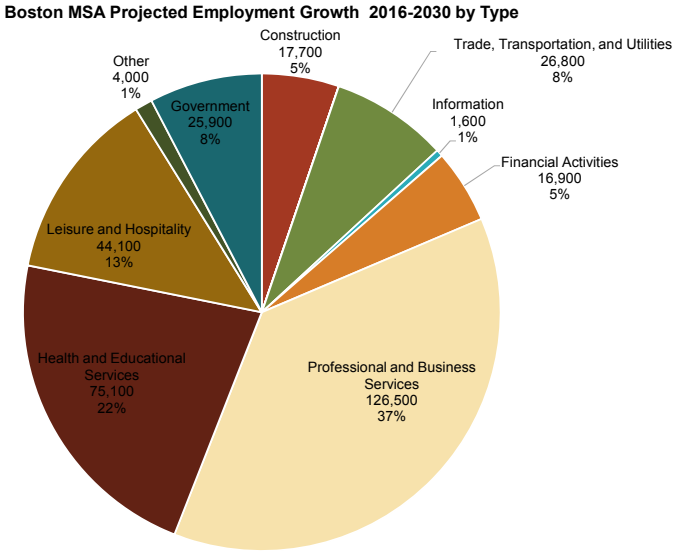
Fair Share of Growth is calculated by City's Share of Employment Growth divided by Cities Share of Total Employment.
A fair share of over 1.0 means a City is getting more than their fair share of growth.

[1] Massachusetts Office of Labor and Workforce Development
[2] Moody's
[3] 2005 onward , excluding 2008 because of job losses related to the recession

Exhibit II-3

PROJECTED EMPLOYMENT GROWTH
BOSTON-CAMBRIDGE-NEWTON, MA-NH METROPOLITAN STATISTICAL AREA
1980-2030



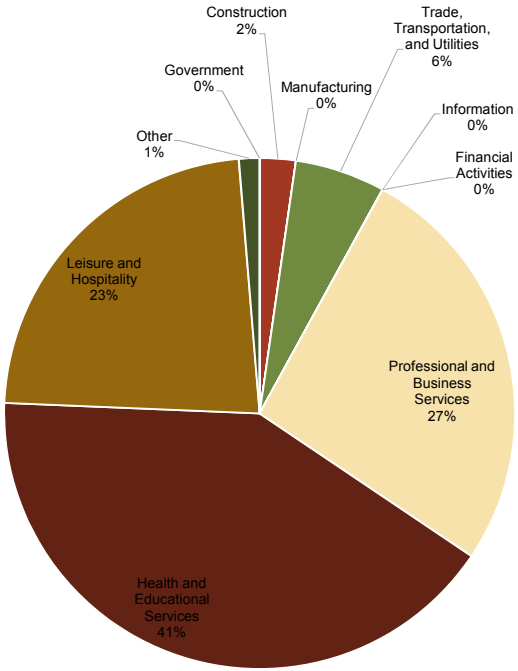


SOURCE: Moody's

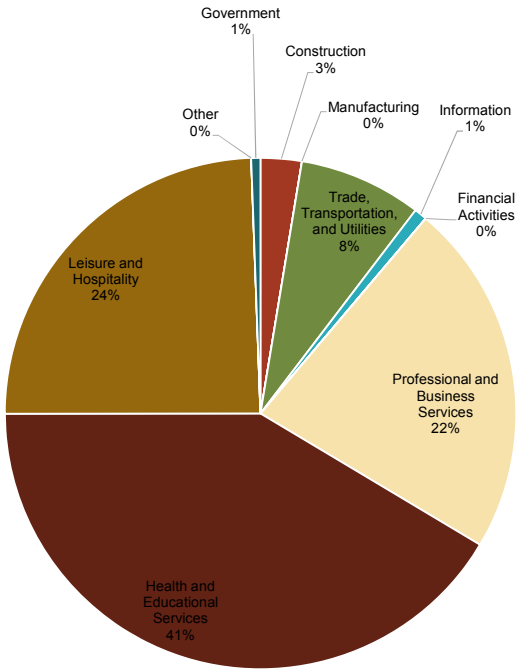
Exhibit II-4

HISTORIC EMPLOYMENT GROWTH BY SECTOR
BOSTON, SOMERVILLE, AND CAMBRIDGE
2010-2014

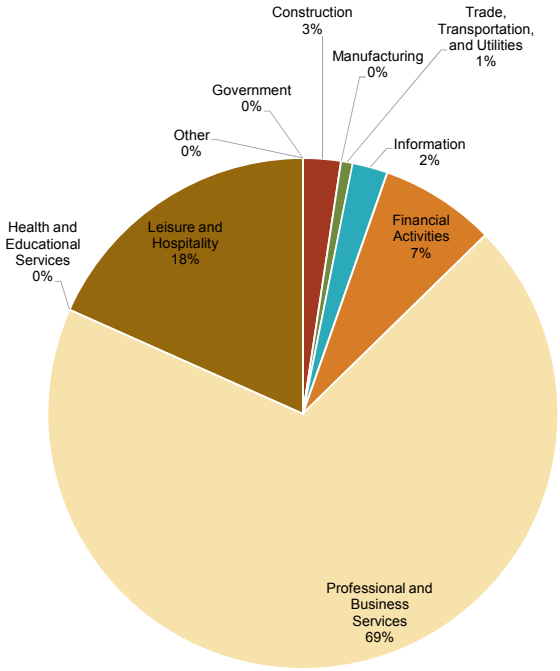
Boston 2010-2014 Employment Growth



Somerville 2010-2014 Employment Growth



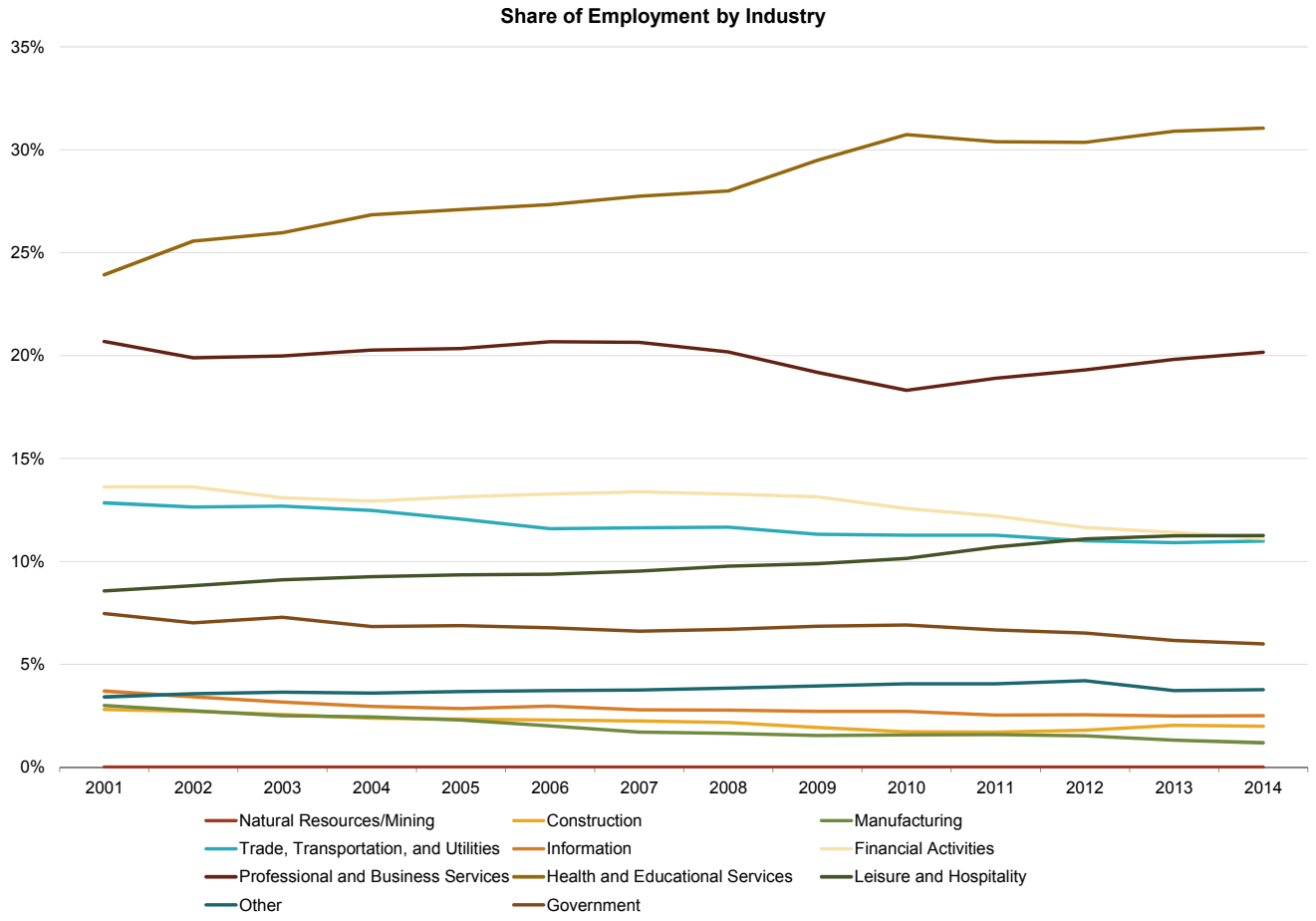
Cambridge 2010-2014 Employment Growth



SOURCE: Moody's

Exhibit II-5A

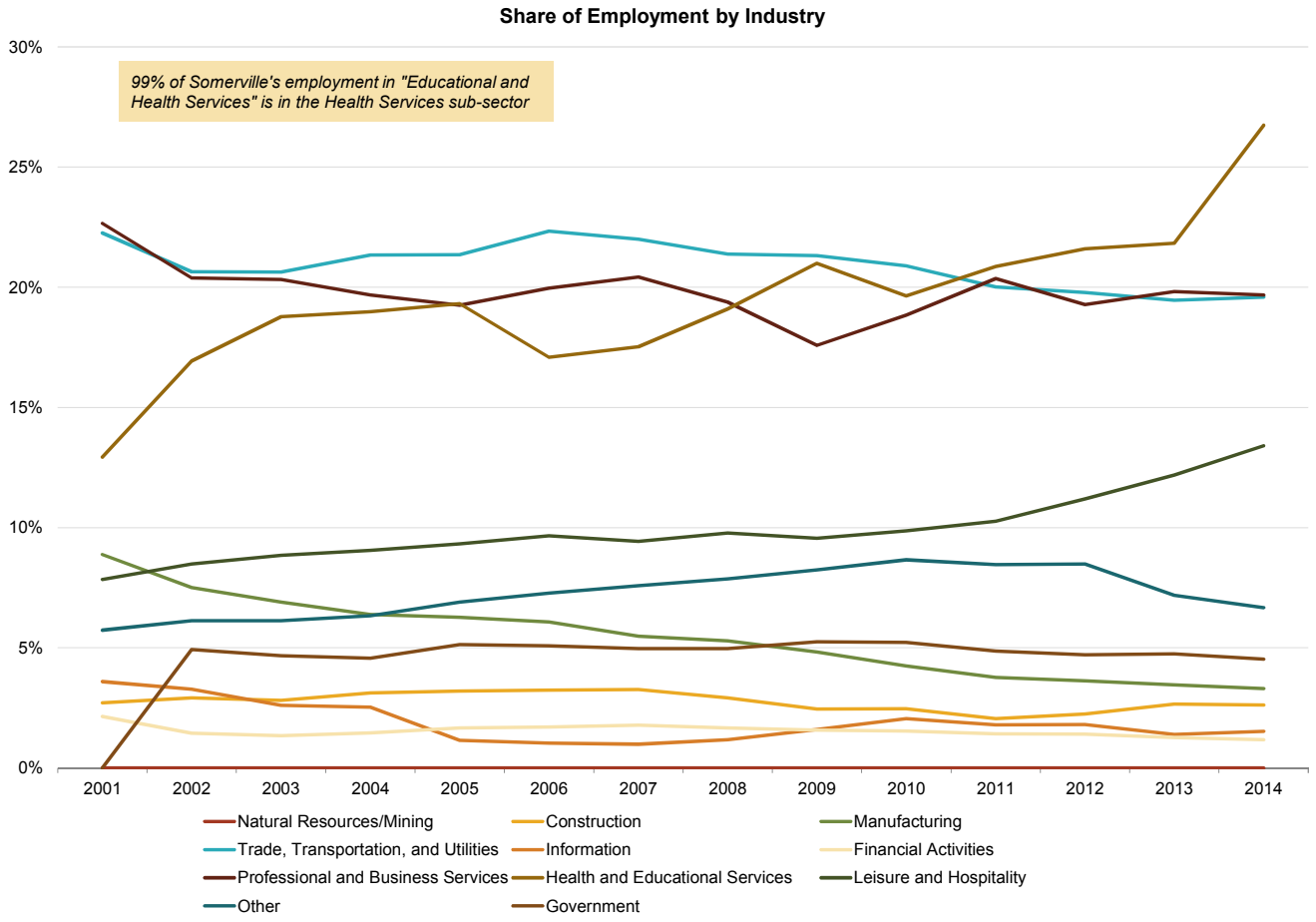
SHARE OF EMPLOYMENT BY INDUSTRY SECTOR
CITY OF BOSTON
2001-2014



SOURCE: Massachusetts Office of Labor and Workforce Development

Exhibit II-5B

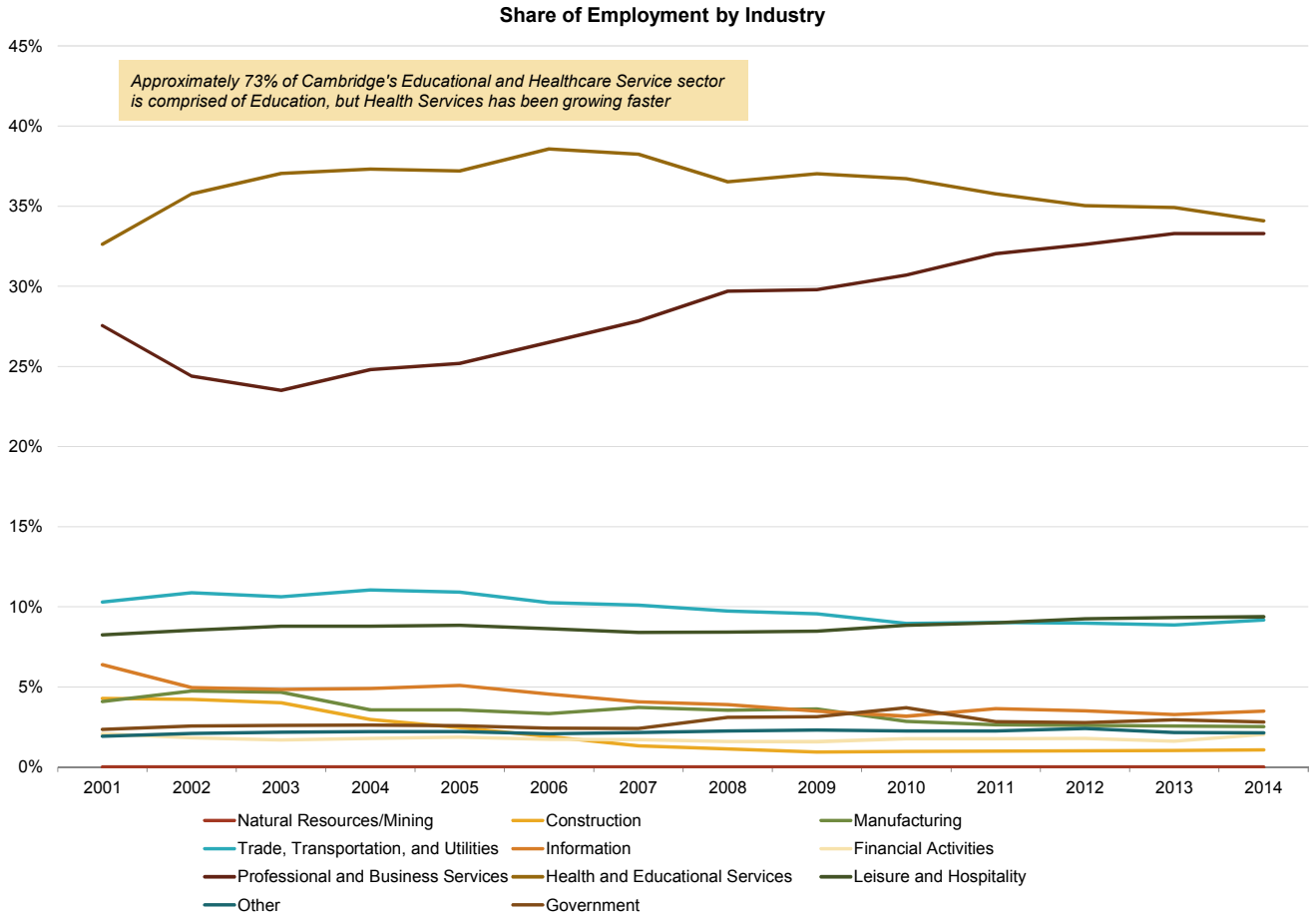
SHARE OF EMPLOYMENT BY INDUSTRY SECTOR
CITY OF SOMERVILLE
2001-2014



SOURCE: Massachusetts Office of Labor and Workforce Development

Exhibit II-5C

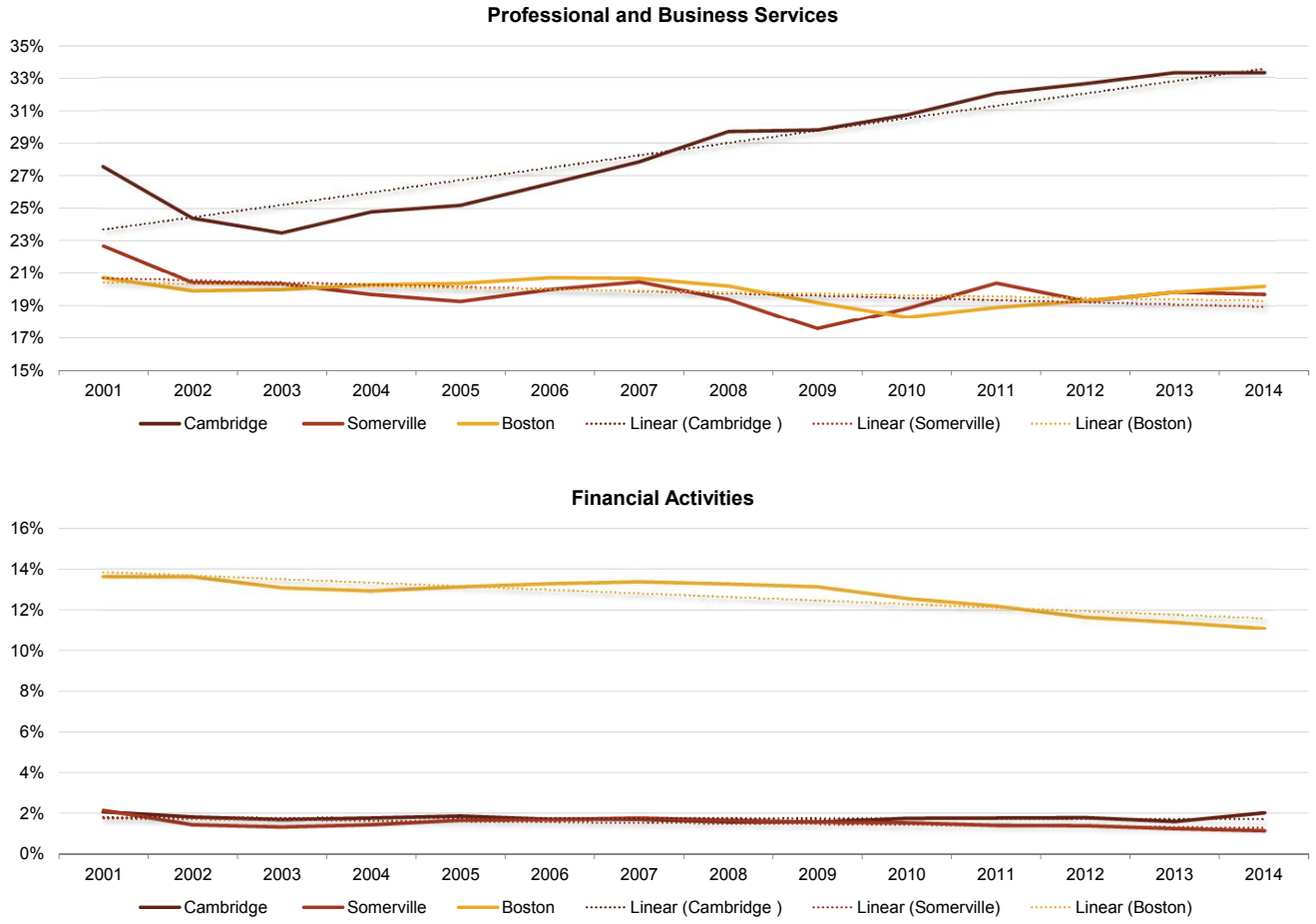
SHARE OF EMPLOYMENT BY INDUSTRY
CITY OF CAMBRIDGE
2001-2014



SOURCE: Massachusetts Office of Labor and Workforce Development

Exhibit II-6A

SHARE OF PROFESSIONAL AND BUSINESS SERVICES AND FINANCIAL ACTIVITIES
CITY OF BOSTON, CITY OF SOMERVILLE, AND CITY OF CAMBRIDGE
2001-2014

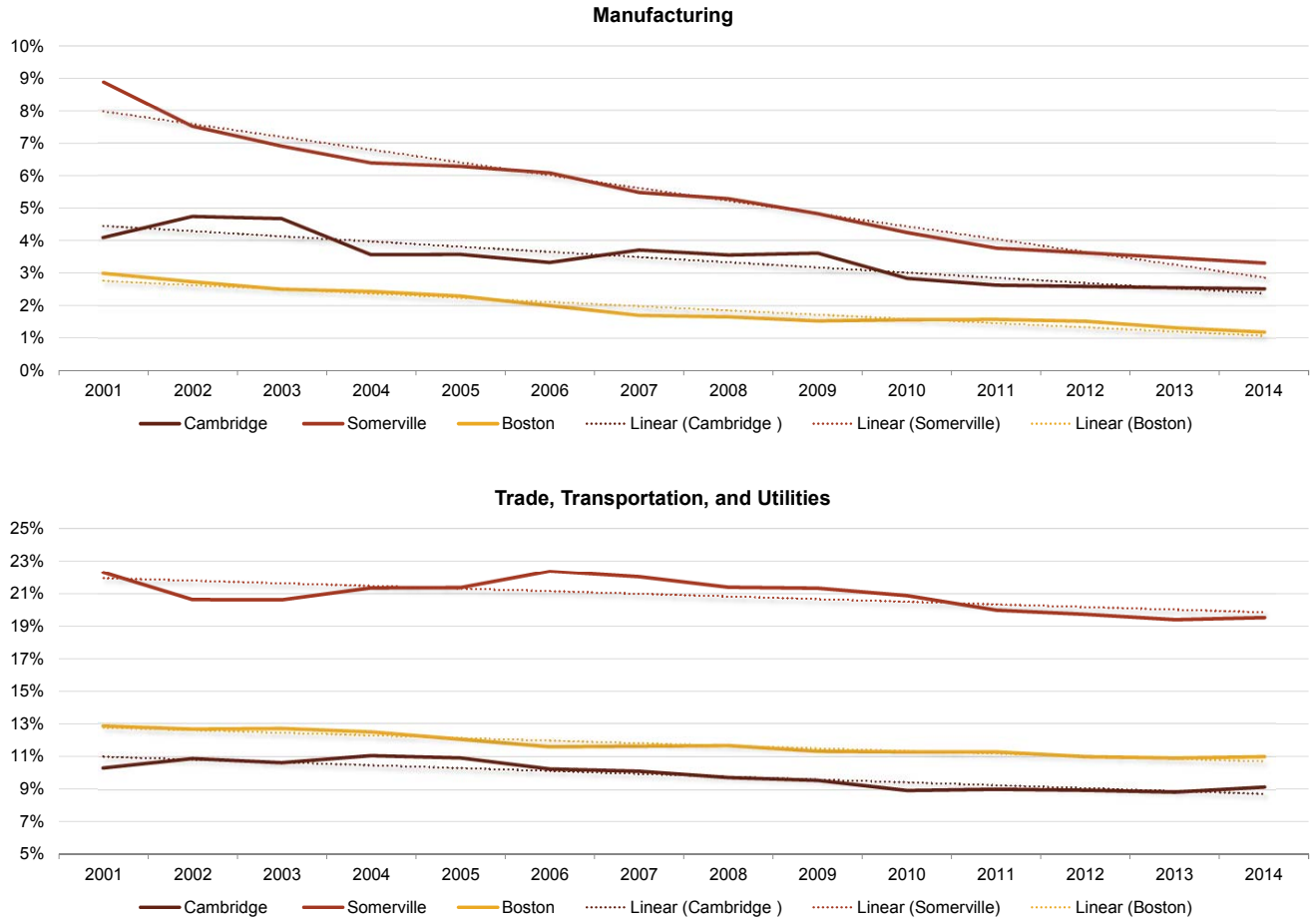


SOURCE: Massachusetts Office of Labor and Workforce Development

CITY OF SOMERVILLE

Exhibit II-6B

SHARE OF MANUFACTURING AND TRADE, TRANSPORTATION, AND UTILITIES
CITY OF BOSTON, CITY OF SOMERVILLE, AND CITY OF CAMBRIDGE
2001-2014

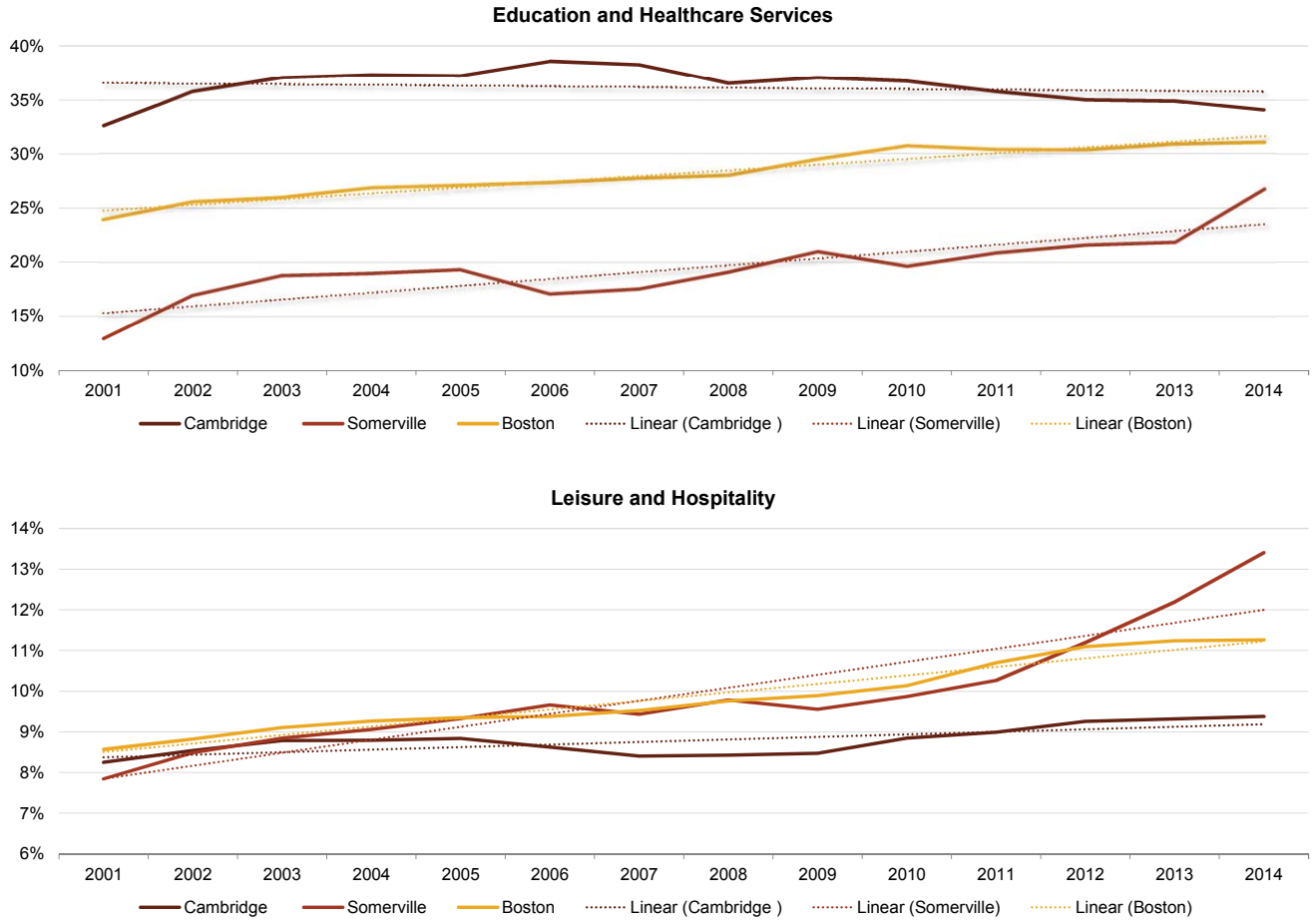


SOURCE: Massachusetts Office of Labor and Workforce Development

CITY OF SOMERVILLE

Exhibit II-6C

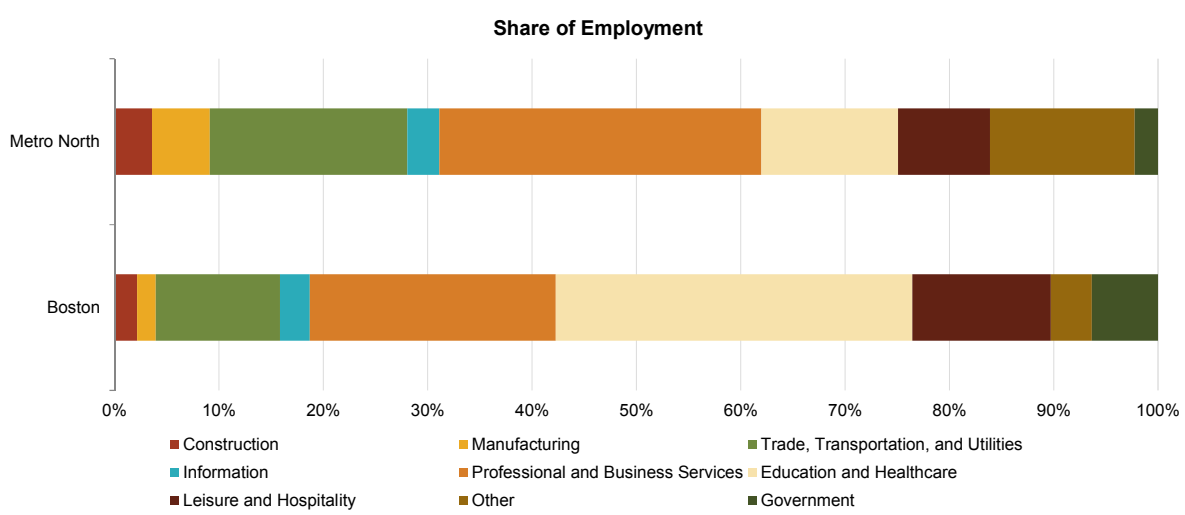
SHARE OF EDUCATION AND HEALTHCARE SERVICES AND LEISURE AND HOSPITALITY
CITY OF BOSTON, CITY OF SOMERVILLE, AND CITY OF CAMBRIDGE
2001-2014



SOURCE: Massachusetts Office of Labor and Workforce Development

Exhibit II-7

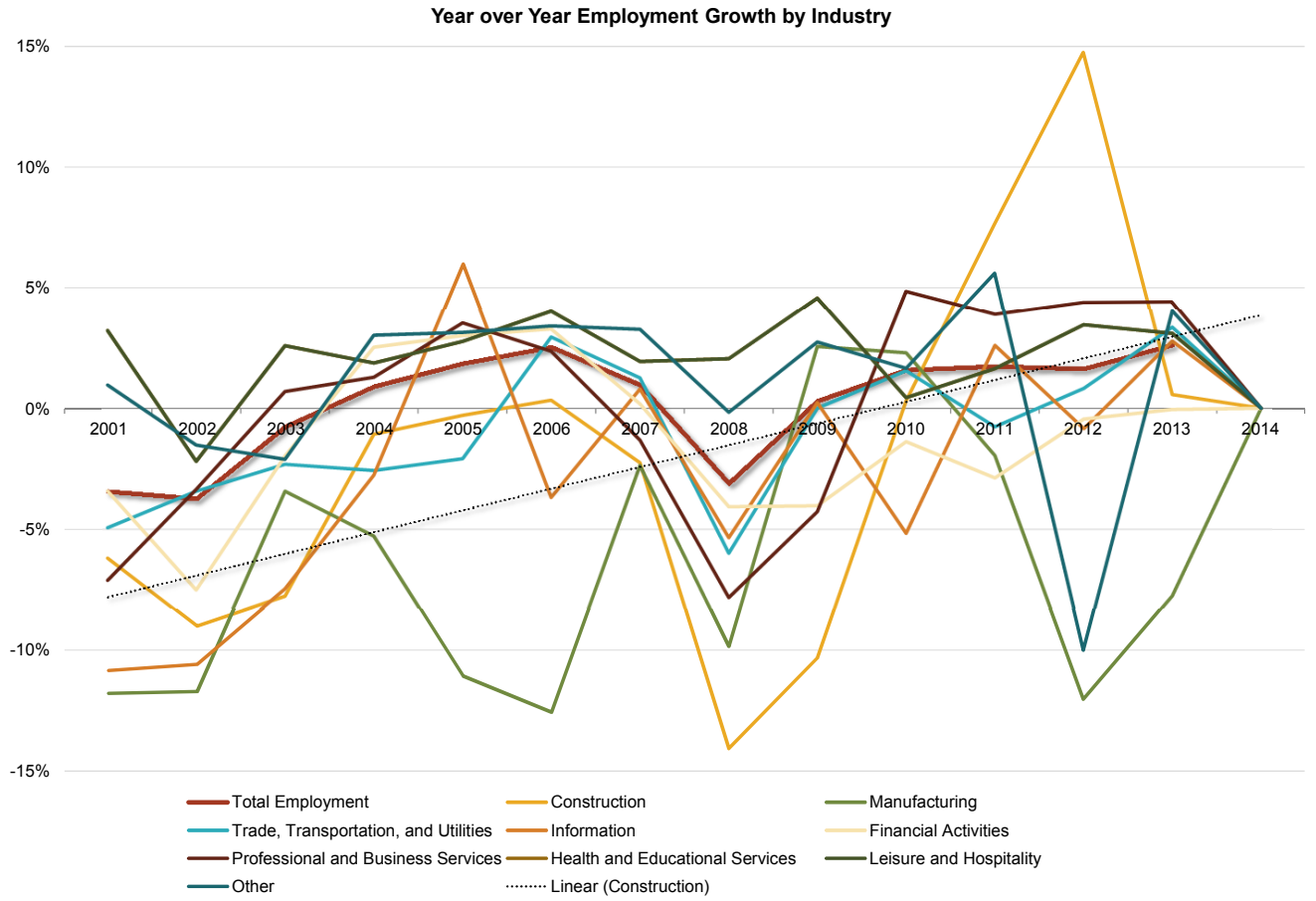
SHARE OF EMPLOYMENT BY INDUSTRY SECTOR
BOSTON AND METRO NORTH WORKFORCE INVESTMENT AREAS
2014



SOURCE: Massachusetts Office of Labor and Workforce Development

Exhibit II-8

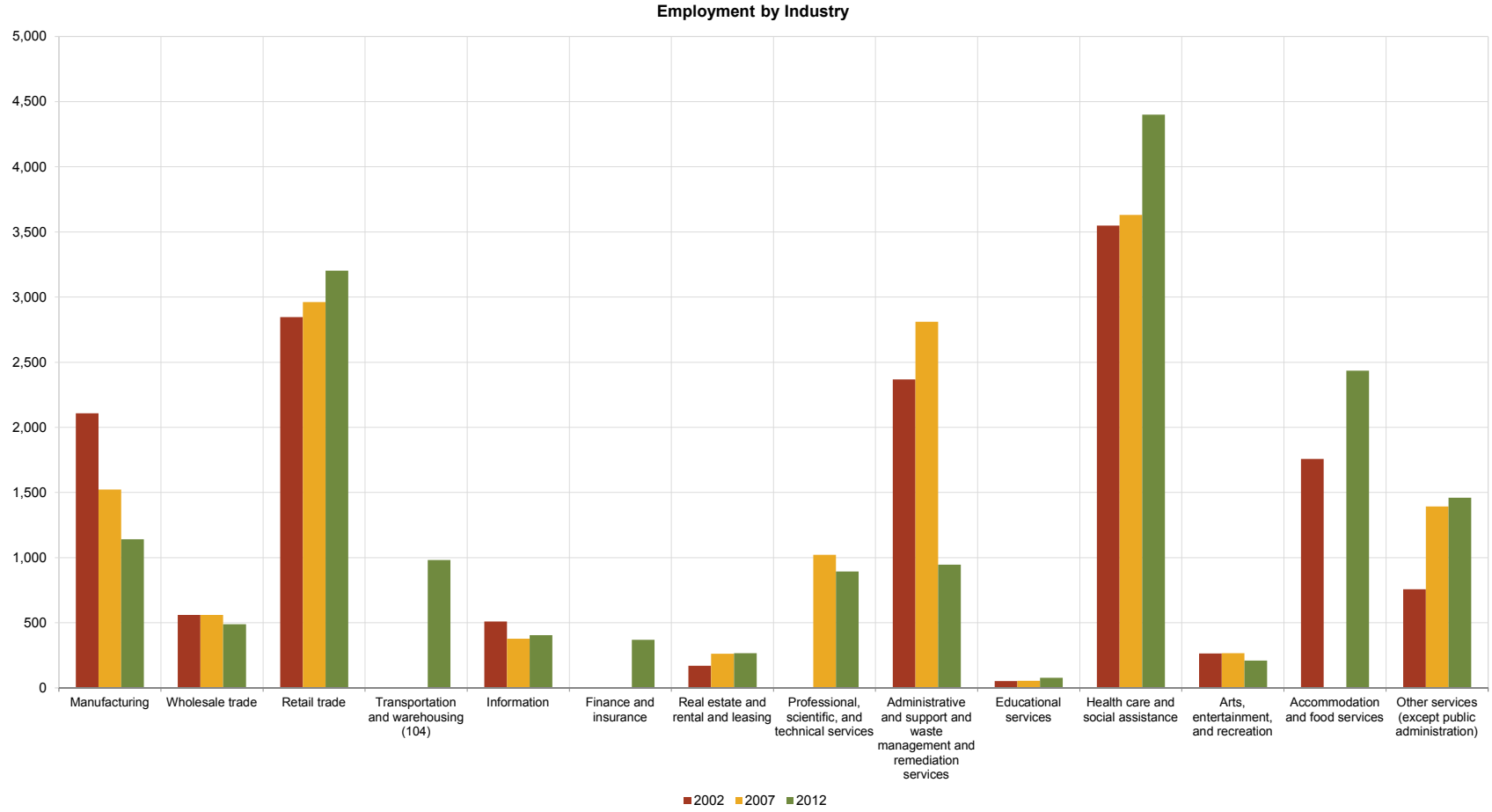
SHARE OF EMPLOYMENT BY INDUSTRY SECTOR
CITY OF BOSTON
2001-2014



Note: Natural Resources and Mining excluded because of small share, and noise in data
SOURCE: Moody's

Exhibit II-9

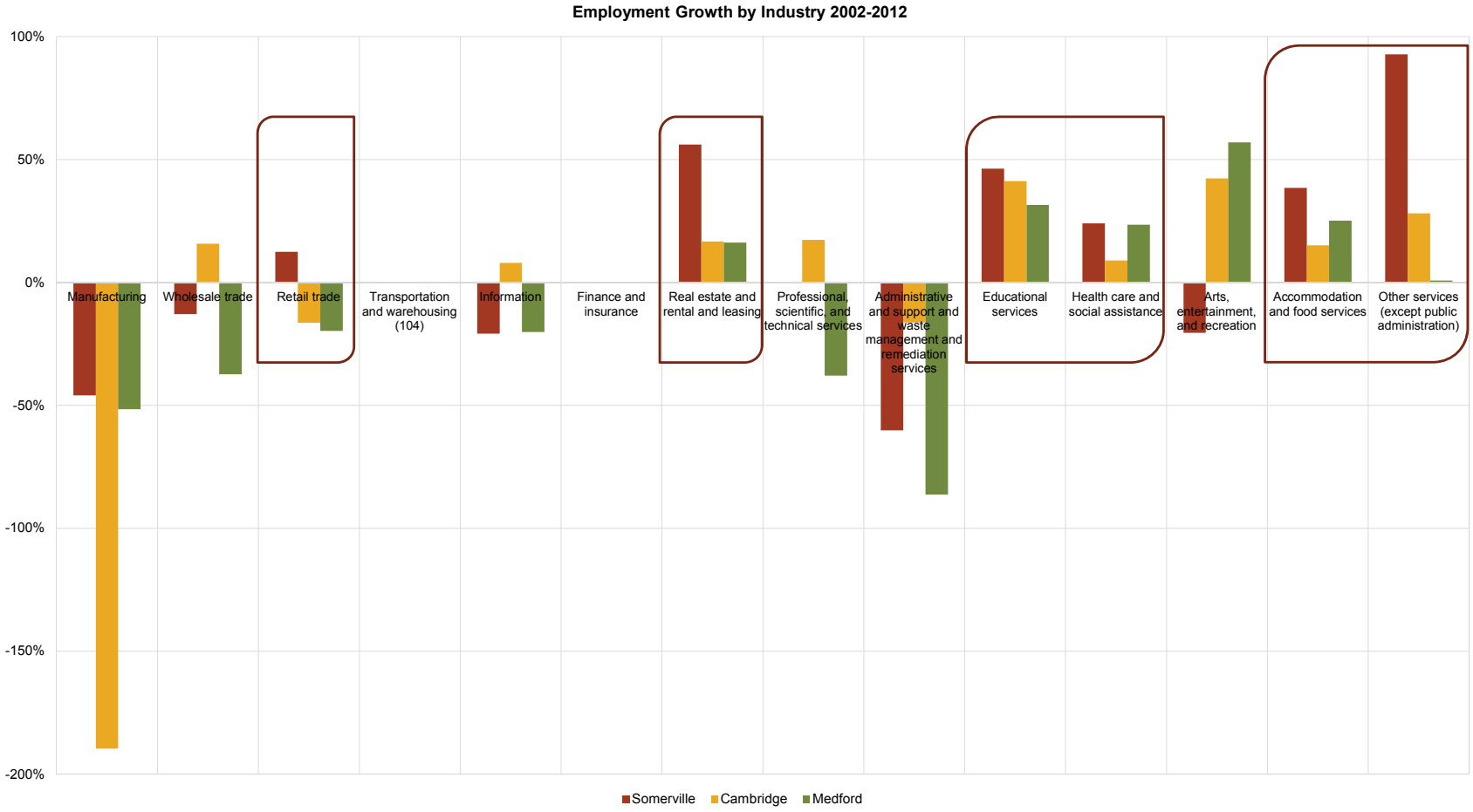
EMPLOYMENT BY INDUSTRY SECTOR
CITY OF SOMERVILLE, MA
2002-2012



Note: Utilities excluded because of small share, and noise in data
SOURCE: Economic Census 2002, 2007, 2012

Exhibit II-10

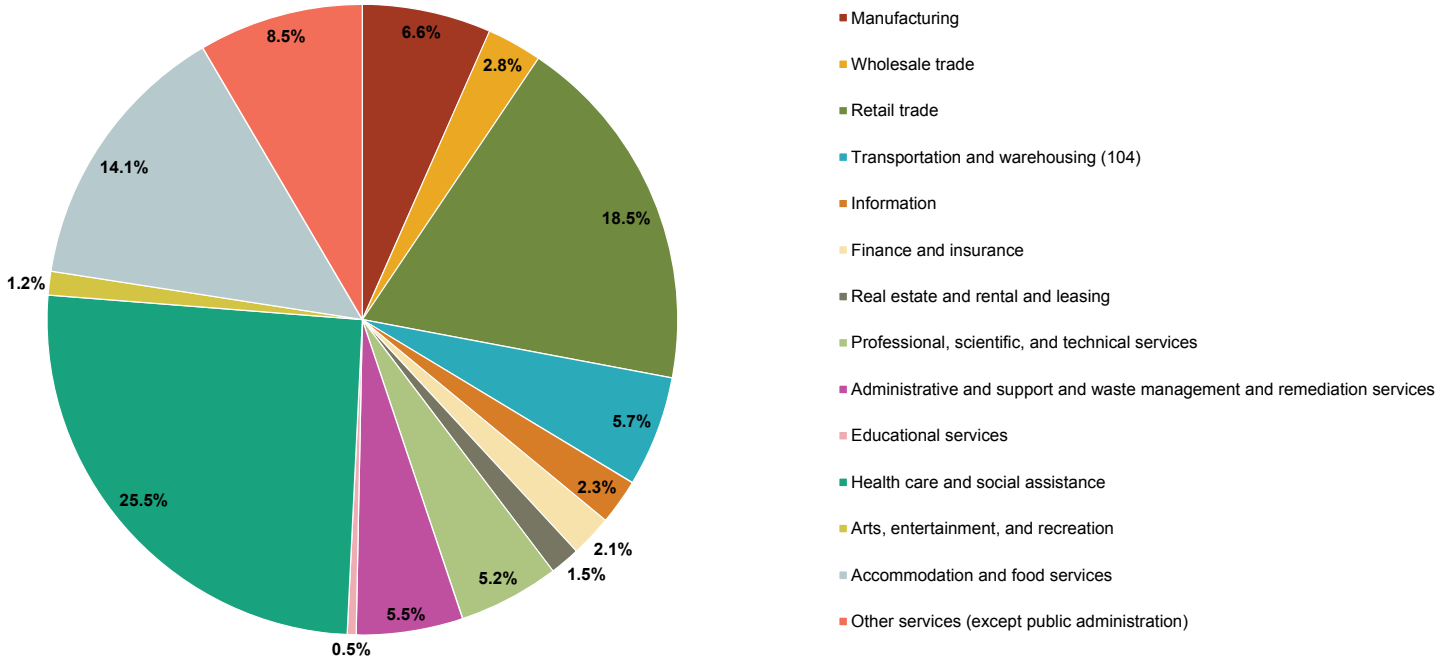
EMPLOYMENT PERCENT CHANGE BY INDUSTRY SECTOR
CITY OF SOMERVILLE, CITY OF CAMBRIDGE, AND CITY OF MEDFORD
2002-2012



Note: Utilities excluded because of small share, and noise in data
SOURCE: Economic Census 2002, 2007, 2012

Exhibit II-11

SHARE OF EMPLOYMENT BY INDUSTRY SECTOR
CITY OF SOMERVILLE, MA
2012

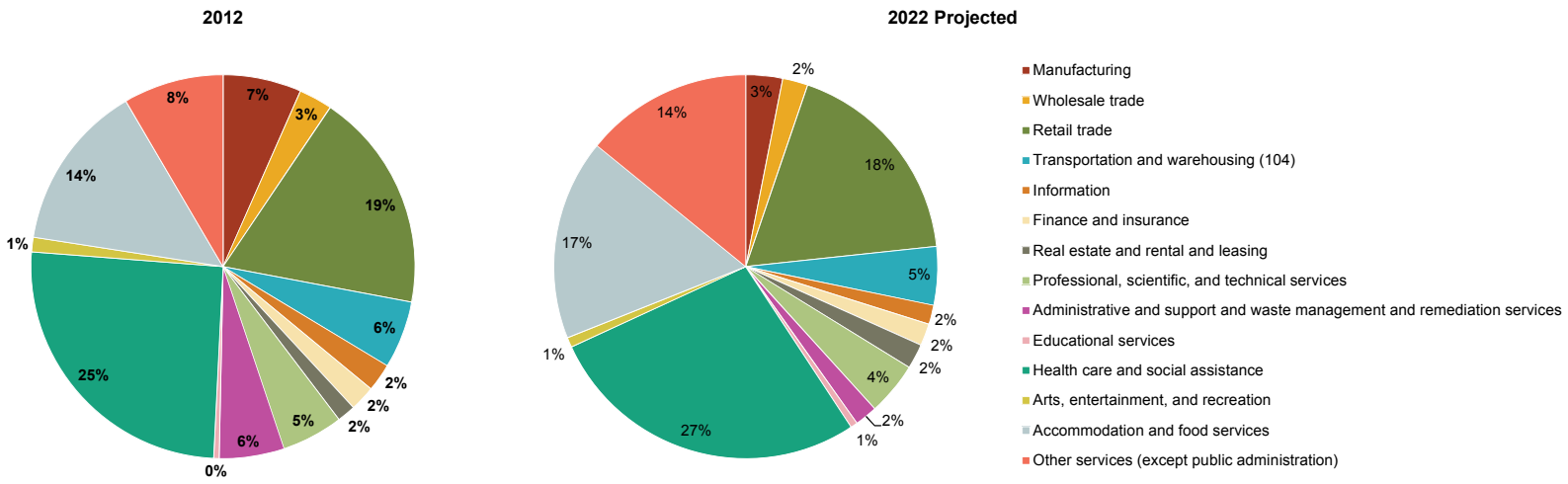


Note: Utilities excluded because of small share, and noise in data
SOURCE: Moody's

Exhibit II-12

PROJECTED SHARE OF EMPLOYMENT BY INDUSTRY SECTOR
CITY OF SOMERVILLE, MA
2022

NAICS Code	Employment by Industry	2002	2012	10 Year % Change	2020 Projected	Share
31-33	Manufacturing	2,109	1,142	-46%	618	3%
42	Wholesale trade	561	489	-13%	426	2%
44-45	Retail trade	2,847	3,203	13%	3,604	18%
48-49 (104)	Transportation and warehousing (104)	511	982	0%	982	5%
51	Information	171	405	-21%	321	2%
52	Finance and insurance	2,369	370	0%	370	2%
53	Real estate and rental and leasing	54	267	56%	417	2%
54	Professional, scientific, and technical services	3,549	895	0%	895	4%
56	Administrative and support and waste management and remediation services	264	946	-60%	378	2%
61	Educational services	758	79	46%	116	1%
62	Health care and social assistance	0	4,402	24%	5,460	27%
71	Arts, entertainment, and recreation	0	210	-20%	167	1%
72	Accommodation and food services	0	2,436	38%	3,374	17%
81	Other services (except public administration)	2,002	1,461	93%	2,816	14%
	TOTAL	**15,195**	**17,287**		**19,943**	



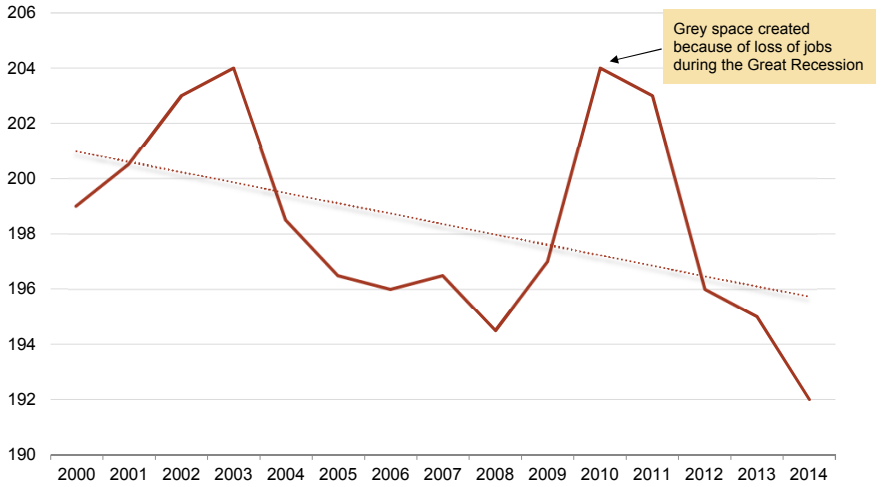
Note: Utilities excluded because of small share, and noise in data
SOURCE: Moody's

Exhibit II-13

OFFICE SPACE PER EMPLOYEE CALCULATION
CITY OF SOMERVILLE, MA
2016

SECTOR	% of Jobs	Space Per Office Employee Assumption
Traditional Office[1]	75%	200
Laboratory Employment[2]	25%	400
Weighted Total		250

Occupied Office Space per Employee
2000-2014



[1] Rounded figure of 200 SF based on average of 2000-2014 Occupied Office Space per Employee BLS; CoStar
[2] Provided by the City of Somerville based on previous research
SOURCE: U.S. Bureau of Labor Statistics Occupational Employment Statistics; CoStar Portfolio Strategy

III. TASK 4 – PARKING ANALYSIS

Exhibit III-1

PRELIMINARY RESIDUAL LAND VALUE MODEL SUMMARY
HYPOTHETICAL PARKING SCENARIOS
2015

	SF Rentable	Parking Spaces	Jobs	Residual Land Value per SF	Residual Land Value per Acre	Site Residual Land Value	2015 Tax Revenue
Office Building with Structured Parking							
Old Zoning Code	157,000	322	431	$21.21	$923,889	$1,624,611	$784,890
New Zoning Code	195,000	215	540	$149.64	$6,518,262	$11,462,026	$979,830
Net Change of New Code	**38,000**	**-107**	**109**	**$128.43**	**$5,594,373**	**$9,837,415**	**$194,940**
Office Building with Underground Parking							
Old Zoning Code	270,000	547	754	-$213.60	-$9,304,290	-$16,361,111	$1,364,580
New Zoning Code	270,000	298	754	$19.56	$851,884	$1,497,993	$1,364,580
Net Change of New Code	**0**	**249**	**0**	**$233.15**	**$10,156,174**	**$17,859,104**	**$0**

	Units	Parking Spaces	Jobs	Residual Land Value per SF	Residual Land Value per Unit	Residual Land Value per Acre	Site Residual Land Value	2015 Tax Revenue
Apartment Building with Structured Parking								
Old Zoning Code	140	214	40	$142.89	$36,613	$6,224,500	$10,945,461	$481,060
New Zoning Code	165	185	40	$211.06	$53,809	$9,193,597	$16,166,463	$552,307
Net Change of New Code	**25**	**-29**	**0**	**$68.16**	**$17,196**	**$2,969,097**	**$5,221,003**	**$71,246**
Apartment Building with Underground Parking								
Old Zoning Code	222	386	40	-$32.30	-$8,254	-$1,406,851	-$2,473,875	$714,749
New Zoning Code	222	242	40	$97.56	$24,931	$4,249,543	$7,472,601	$714,749
Net Change of New Code	**0**	**144**	**0**	**$129.85**	**$33,185**	**$5,656,395**	**$9,946,476**	**$0**

Note: This model is a representative land value meant to show comparisons between the parking requirements in various codes, actual values will be based on specific properties and data.
SOURCE: RCLCO

Exhibit III-2

EXISTING CODE - OFFICE BUILDING ASSUMPTIONS
STRUCTURED PARKING AND UNDERGROUND PARKING
2015

	Assumptions	Office Building Structured Parking	Office Building Underground Parking
Above Ground SF		**270,000**	**270,000**
Office		137,000	250,000
Retail		20,000	20,000
Parking		112,700	0
Office Parking Ratio	1 per 500 SF	0.00200	0.00200
Office Parking		274	500
Retail Parking Ratio	1 per 425 SF	0.00235	0.00235
Retail Parking		48	47
Total Parking		322	547
Parking SF	350 SF per space	112,700	191,471
Office Jobs	1 employee per 350 SF	391	714
Retail Jobs	1 employee per 500 SF	40	40
Total Jobs		**431**	**754**
Office Assessed Value	$250 per SF	$34,250,000.00	$62,500,000.00
Retail Assessed Value	$200 per SF	$4,000,000.00	$4,000,000.00
Commercial Tax Revenue	**$20.52 per $,1000 AV**	**$784,890**	**$1,364,580**
Office Construction Cost	$220 per GSF	$30,140,000	$55,000,000
Retail Construction Cost	$220 per GSF	$4,400,000	$4,400,000
Structured Parking Cost	$28,000 per space	$9,016,000	
Underground Parking Cost	$55,000 per space		$30,088,235
Total Building Cost		**$43,556,000**	**$89,488,235**

SOURCE: RCLCO; Broker and developer interviews

Exhibit III-3

NEW CODE - OFFICE BUILDING ASSUMPTIONS
STRUCTURED PARKING AND UNDERGROUND PARKING
2015

	Assumptions	Office Building Structured Parking	Office Building Underground Parking
Above Ground SF		**270,000**	**270,000**
Office		175,000	250,000
Retail		20,000	20,000
Parking		75,250	0
Office Parking Ratio	1 per 900 SF	0.00111	0.00111
Office Parking		195	278
Retail Parking Ratio (NH Center Station)	1 per 1,000 SF	0.00100	0.00100
Retail Parking		20	20
Total Parking		215	298
Parking SF	350 SF per space	75,250	104,300
Office Jobs	1 employee per 350 SF	500	714
Retail Jobs	1 employee per 500 SF	40	40
Total Jobs		**540**	**754**
Office Assessed Value	$250 per SF	$43,750,000.00	$62,500,000.00
Retail Assessed Value	$200 per SF	$4,000,000.00	$4,000,000.00
Commercial Tax Revenue	**$20.52 per $,1000 AV**	**$979,830**	**$1,364,580**
Office Construction Cost	$220 per GSF	$38,500,000	$55,000,000
Retail Construction Cost	$220 per GSF	$4,400,000	$4,400,000
Structured Parking Cost	$28,000 per space	$6,020,000	
Underground Parking Cost	$55,000 per space		$16,390,000
Total Building Cost		**$48,920,000**	**$75,790,000**

SOURCE: RCLCO; Broker and developer interviews

Exhibit III-4

EXISTING CODE - RESIDENTIAL BUILDING ASSUMPTIONS
STRUCTURED PARKING AND UNDERGROUND PARKING
2015

	Assumptions	Apt Building Structured Parking	Apt Building Underground Parking
Residential Units		**140**	**222**
Studio	5%	7	11
One-Bedroom	30%	42	67
Two-Bedroom	55%	77	122
Three-Bedroom	10%	14	22
Residential NSF		**125,965**	**199,745**
Studio	500 SF per unit average	3,500	5,550
One-Bedroom	720 SF per unit average	30,240	47,952
Two-Bedroom	975 SF per unit average	75,075	119,048
Three-Bedroom	1225 SF per unit average	17,150	27,195
Average Unit Size		900	900
Residential GSF	80% Efficiency	157,456	249,681
Ground Floor Retail SF		20,000	20,000
Parking Required			
Residential			
Studio	1.0 per unit	7	11
One-Bedroom	1.5 per unit	63	100
Two-Bedroom	1.5 per unit	116	183
Three-Bedroom	2.0 per unit	28	44
Residential Parking Units		214	339
Retail Parking Ratio	1 per 425 SF	0.00235	0.00235
Retail Parking		48	47
Total Parking		**262**	**386**
Parking SF	**350 SF per space**	**91,525**	**134,963**
Above Ground Project GSF		**269,000**	**270,000**
Retail Jobs	1 employee per 500 SF	40	40
Total Jobs		40	40
Residential Assessed Value	$226,000 per unit	$31,640,000.00	$50,172,000.00
Residential Tax Revenue	**$12.61 per $,1000 AV**	**$398,980.40**	**$632,668.92**
Retail Assessed Value	$200 per SF	$4,000,000.00	$4,000,000.00
Commercial Tax Revenue	**$20.52 per $,1000 AV**	**$82,080**	**$82,080**
Residential Construction Cost	$200 per GSF	$31,491,250	$49,936,125
Retail Construction Cost	$200 per GSF	$4,000,000	$4,000,000
Structured Parking Cost	$28,000 per space	$7,322,000	
Underground Parking Cost	$55,000 per space		$21,208,485
Total Building Cost		**$42,813,250**	**$75,144,610**

Note: Apartment Rent and Average Unit Size were taken from Zimmerman/Volk's January 2015 Residential Market Study of Union Square
SOURCE; RCLCO; Zimmerman/Volk; broker and developer interviews

Exhibit III-5

NEW CODE - RESIDENTIAL BUILDING ASSUMPTIONS
STRUCTURED PARKING AND UNDERGROUND PARKING
2015

	Assumptions	Residential Apts Structured Parking	Residential Apts Underground Parking
Residential Units		**165**	**222**
Studio	5%	8	11
One-Bedroom	30%	50	67
Two-Bedroom	55%	91	122
Three-Bedroom	10%	17	22
Residential SF		**148,459**	**199,745**
Studio	500 SF per unit average	4,125	5,550
One-Bedroom	720 SF per unit average	35,640	47,952
Two-Bedroom	975 SF per unit average	88,481	119,048
Three-Bedroom	1225 SF per unit average	20,213	27,195
Residential GSF	80% Efficiency	185,573	249,681
Ground Floor Retail SF		20,000	20,000
Above Ground Project GSF		**270,000**	**270,000**
Parking Required			
Residential Units		165	222
Long term parking	1.0 per unit	165	222
Retail Parking Ratio	1 per 1,000 SF	0.00100	0.00100
Retail Parking		20	20
Total Parking		**185**	**242**
Parking SF	**350 SF per space**	**64,750**	**84,700**
Retail Jobs	1 employee per 500 SF	40	40
Total Jobs		40	40
Residential Assessed Value	$226,000 per unit	$37,290,000.00	$50,172,000.00
Residential Tax Revenue	**$12.61 per $,1000 AV**	**$470,226.90**	**$632,668.92**
Retail Assessed Value	$200 per SF	$4,000,000.00	$4,000,000.00
Commercial Tax Revenue	**$20.52 per $,1000 AV**	**$82,080**	**$82,080**
Residential Construction Cost	$200 per GSF	$33,000	$44,400
Retail Construction Cost	$200 per GSF	$4,000,000	$4,000,000
Structured Parking Cost	$28,000 per space	$5,180,000	
Underground Parking Cost	$55,000 per space		$13,310,000
Total Building Cost		**$9,213,000**	**$17,354,400**

Note: Apartment Rent and Average Unit Size were taken from Zimmerman/Volk's January 2015 Residential Market Study of Union Square
SOURCE: RCLCO; Zimmerman/Volk; broker and developer interviews

Exhibit III-6

LAND RESIDUAL MODEL
HYPOTHETICAL PARKING SCENARIOS
2015

		Office Building Structured Parking		Office Building Underground Parking		Residential Building Structured Parking		Residential Building Underground Parking	
Orientation		Existing Code	New Code	Existing Code	New Code	Existing Code	New Code	Existing Code	New Code
		1	2	3	4	5	6	7	8
Site Area SF		76,598	76,598	76,598	76,598	76,598	76,598	76,598	76,598
Density/FAR		3.52	3.53	3.52	3.52	100	117	158	158
Net Unit Size / Gross Room Size		1	1	1	1	900	900	900	900
Efficiency		92.0%	92.0%	92.0%	92.0%	80.0%	80.0%	80.0%	80.0%
Project GSF (not including above ground parking)		157,000	195,000	270,000	270,000	177,456	205,573	269,681	269,681
Office SF		137,000	175,000	250,000	250,000				
Retail SF		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Residential SF						157,456	185,573	249,681	249,681
Parking Above Grade SF		112,700	75,250	-	-	91,525	64,750		
FAR		3.52	3.53	3.52	3.52	3.51	3.53	3.52	3.52
Average Sales Price									
Price per NSF									
Closing Costs									
Sales Commission									
Net Sales per GSF									
Rent/ADR (Blended)		$41.11	$41.28	$41.48	$41.48	$29.50	$29.40	$29.26	$29.26
Office Rent		$42.00	$42.00	$42.00	$42.00				
Retail Rent		$35.00	$35.00	$35.00	$35.00	$35	$35	$35	$35
Residential Rent						$29	$29	$29	$29
Parking Rent									
Other Income						5.0%	5.0%	5.0%	5.0%
Vacancy Factor		10.0%	10.0%	10.0%	10.0%	5.0%	5.0%	5.0%	5.0%
Departmental Expenses		N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
OpEx and Reserves						$9.44	$9.41	$9.36	$9.36
OpEx Ratio		22.0%	22.0%	22.0%	22.0%	32.0%	32.0%	32.0%	32.0%
NOI per GSF		$26.55	$26.66	$26.79	$26.79	$20.06	$19.99	$19.90	$19.90
Valuation Cap Rate		6.00%	6.00%	6.00%	6.00%	5.50%	5.50%	5.50%	5.50%
Value per GSF		$442.49	$444.36	$446.51	$446.51	$365	$364	$362	$362
Construction Type		I	I	I	I	I	I	I	I
Site Prep	$0/Ac	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Building Construction per GSF		$220	$220	$220	$220	$200	$200	$200	$200
Parking Spaces Required		322	215	547	298	262	185	386	242
% Surface Parking		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Structured Parking		100.0%	100.0%			100.0%	100.0%		
% Underground Parking				100.0%	100.0%			100.0%	100.0%
Surface	$4,000								
Structured	$28,000								
Underground	$55,000								
Avg Cost per Space		$28,000	$28,000	$55,000	$55,000	$28,000	$28,000	$55,000	$55,000
Total Parking Cost		$9,016,000	$6,020,000	$30,088,235	$16,390,000	$7,322,000	$5,180,000	$21,208,485	$13,310,000
Parking Cost per GSF		$57.43	$30.87	$111.44	$60.70	$41.26	$25.20	$78.64	$49.35
Hard Contingency		7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Total Hard Cost per GSF		$298	$270	$356	$302	$259	$242	$300	$268

Exhibit III-6

LAND RESIDUAL MODEL
HYPOTHETICAL PARKING SCENARIOS
2015

		Office Building Structured Parking		Office Building Underground Parking		Residential Building Structured Parking		Residential Building Underground Parking	
Orientation		**Existing Code**	**New Code**	**Existing Code**	**New Code**	**Existing Code**	**New Code**	**Existing Code**	**New Code**
A&E (% of Hard)		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Permits, Fees, Taxes (% of Hard)		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Legal, Insurance (% of Hard)		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Marketing (% of Value)		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Working Capital/Opening Fee (%V)		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	Subtotal	$53.44	$50.54	$59.74	$54.01	$45	$44	$50	$46
TI Allowance (per NSF)		$50.00	$50.00	$50.00	$50.00				
Leasing Commissions (%)									
Average Lease Term (Years)									
FF&E (per Unit/Key)									
OS&I (per Key)									
	Subtotal	$46.00	$46.00	$46.00	$46.00	$0.00	$0.00	$0.00	$0.00
Developer Fee (% of Cost)		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Soft Contingency		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	Subtotal	$31.81	$29.30	$36.96	$32.14	$11	$11	$13	$12
Total Soft Cost per GSF		$131.25	$125.83	$142.70	$132.15	$57	$54	$63	$58
	% of Hard	*44.0%*	*46.7%*	*40.1%*	*43.8%*	*22.0%*	*22.5%*	*20.9%*	*21.7%*
Interest Rate		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Leverage		65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%
Average Balance		50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Months Outstanding		12	12	12	12	18	18	18	18
Total Financing Cost per GSF		$6.98	$6.43	$8.11	$7.05	$8	$7	$9	$8
	% of Hard	*2.3%*	*2.4%*	*2.3%*	*2.3%*	*3.0%*	*3.0%*	*2.9%*	*3.0%*
		46.4%	*49.0%*	*42.3%*	*46.1%*	*24.9%*	*25.5%*	*23.8%*	*24.6%*
Development Profit		In Cap Rate	In Cap Rate	In Cap Rate	In Cap Rate	In Cap Rate	In Cap Rate	In Cap Rate	In Cap Rate
Development Profit per GSF		$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Value per GSF		**$442.49**	**$444.36**	**$446.51**	**$446.51**	**$365**	**$364**	**$362**	**$362**
Total Cost+Profit per GSF		**$436.47**	**$401.95**	**$507.10**	**$440.96**	**$324**	**$304**	**$371**	**$334**
Residual Land Value per GSF		**$6.02**	**$42.41**	**($60.60)**	**$5.55**	**$41**	**$60**	**($9)**	**$28**
RLV Per Land SF		**$21.21**	**$149.64**	**($213.60)**	**$19.56**	**$143**	**$211**	**($32)**	**$98**
RLV per Acre		**$923,889**	**$6,518,262**	**($9,304,290)**	**$851,884**	**$6,224,500**	**$9,193,597**	**($1,406,851)**	**$4,249,543**
RLV Per Unit/GLA						**$36,613**	**$53,809**	**-$8,254**	**$24,931**
Total Value Per Unit/GLA						**$462,289**	**$452,922**	**$439,455**	**$439,455**