

October 2017

REAL PROPERTY TRANSFER FEE IMPACT ANALYSIS

Somerville, Massachusetts



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Prepared for

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Table of Contents

Chapter 1 EXECUTIVE SUMMARY	
A. Introduction.....	1-1
B. Key Findings.....	1-2
Chapter 2 RESIDENTIAL SALES TRANSACTION ANALYSIS	
A. Methodology.....	2-1
B. Annual Sales Trends.....	2-2
C. Analysis of Residential Holding Period.....	2-15
Chapter 3 NON-RESIDENTIAL SALES ANALYSIS	
A. Methodology.....	3-1
B. Non-Residential Property Sales Trends	3-2
Chapter 4 REAL ESTATE INTERVIEWS	
A. Introduction	4-1
B. Summary of Interview Comments.....	4-1
Chapter 5 TRANSFER FEE REVENUE PROJECTIONS AND IMPACT ANALYSIS	
A. Introduction	5-1
B. 10-Year Residential Sales Projections	5-1
C. Residential Transfer Fee Impacts	5-3
D. 10-Year Non-Residential Sales Projection and Transfer Fee Impacts.....	5-11
E. Policy Implications	5-12

1 EXECUTIVE SUMMARY

A. INTRODUCTION

The City of Somerville Mayor's Office of Strategic Planning and Community Development retained the services of RKG Associates, Inc. of Boston, Massachusetts to investigate the adoption of a real estate transfer fee levied on future real estate sales transactions in Somerville. Transfer fees are typically levied by various state and local governments on all real estate sales transaction. Real estate transfer fees are imposed on the transfer of title of real property. In most cases, it is an ad valorem fee that is based on the value of the property being transferred. Most states and the District of Columbia levy this fee but 13 states do not. The state statutes may or may not stipulate who (buyer or seller) is responsible for paying the fee at closing. In addition, most statutes list a number of cases where the transfer is exempt from taxation.¹ In the Commonwealth of Massachusetts, the islands of Nantucket and Martha's Vineyard, have sought and received state legislative approval to impose an additional 2% transfer fee on the sale of real estate for the purpose of conserving/preserving open space from development. In addition, Barnstable County, Massachusetts imposes a local transfer charge, as well as a state transfer fee. These are the three Massachusetts' examples where municipal governments have been permitted to impose a special purpose transfer fee on real estate transactions. In Somerville's case, the special purpose transfer fee would be dedicated to the enhancement of affordable housing initiatives.

To understand the impacts of imposing such a fee, the City retained RKG Associates, Inc., an economic and real estate advisory firm, to conduct an analysis to determine the potential impacts of this initiative on Somerville's real estate market and its contribution to the City's affordable housing resources.

RKG Associates took the following steps to evaluate the proposed real estate transfer fee:

- **Real Estate Interviews** - Conducted interviews of a variety of real estate professionals in the Somerville residential market to obtain first-hand observations regarding the proposed real estate transfer fee. The interviewees included real estate brokers, developers, closing agents, and commercial lenders, all of whom work closely with property buyers and sellers during the transaction process. Anecdotal information from them shed light on the potential market reaction to the proposed real estate transfer fee.
- **Real Estate Sales Trends** - Conducted a detailed analysis of residential sales over the 2010-2016 period and nonresidential sales over the 2007-2016 period in Somerville. These two analyses were done exclusive to each other. RKG utilized the City's property assessment data and sales records from multiple sources, this analysis demonstrated the trends of sales volume, price level, property type, and neighborhood characteristics in recent years.

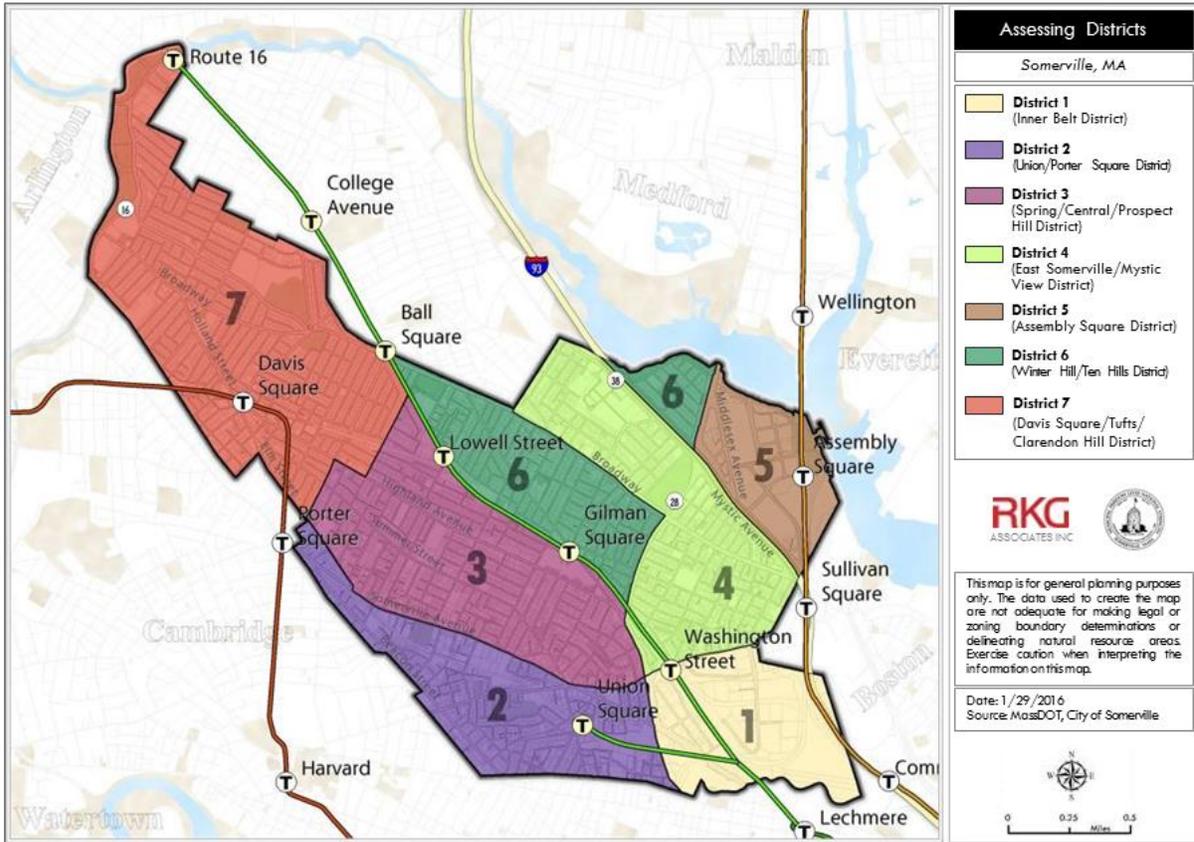
¹ "Summary of Real Estate Transfer Taxes by State," National Association of Real Estate (NAR).
[https://www.nar.realtor/smart_growth.nsf/docfiles/TransferTaxRates\(8-05\).pdf/\\$FILE/TransferTaxRates\(8-05\).pdf](https://www.nar.realtor/smart_growth.nsf/docfiles/TransferTaxRates(8-05).pdf/$FILE/TransferTaxRates(8-05).pdf)

- **Sales Projections** – Projected the annual sales volume in Somerville over the next 10 years (2017-2026). This projection took into consideration recent sales trends, the potential impacts of the Green Line Extension project, and real estate market cycle.
- **Transfer Fee Estimates** - Estimated the amount of real estate transfer fee revenues that the City may expect to receive every year over the next ten years under different scenarios. This includes the initial transfer fee revenues that the City may collect from all sales at a 1% flat rate, three types of transfer fee exemptions that were being considered by the City's Task Force for this policy initiative, as well as the final fee revenues after the exemptions.
- **Policy Implications** – Presented the policy implications of the proposed real estate transfer fee and exemption policy.

B. KEY FINDINGS

- **Recent residential sales trends indicate a strong market marked by stable annual transaction levels but rapidly growing sales volumes.**
During the 2010-2016 period, the number of residential sales in Somerville remained relatively stable at an average of 872 sales per year. Meanwhile, the annual total sales value grew from \$382.2 million to \$619.8 million for an annual average growth rate of 10.4%. Over a half of the sales were condominiums, though the condominium market has experienced a sales decline since 2013. On the other hand, sales of two-family and three-family homes increased significantly in 2014 and 2015, which may indicate a shift in market preference.
- **Residential sales prices have grown rapidly over the past 7 years.**
The growth of per unit and per square foot sales prices occurred across all property types, though the growth for small apartments (4-8 units) and three-family and two-family homes outpaced that of condominiums substantially. This signals a strong demand for three-family/two-family homes and small apartments and a relatively moderate demand for condominiums.
- **Different areas in the city have distinctively different housing market and sales characteristics.**
RKG worked with the City's Assessor to divide the city into seven residential assessing districts (see Map 1). Most of the residential sales occurred in District 7 (Davis Square/Tufts/Clarendon Hill), District 3 (Spring/Central/Prospect Hill), District 2 (Union/Porter Square), District 4 (East Somerville/Mystic View), and District 6 (Winter Hill/Ten Hills). There was an especially high concentration of sales within the area between the Holland Street-Elm Street-Somerville Avenue corridor and the future Green Line corridor. District 4 and District 6 had relatively lower median sale prices and less significant price growth than other districts during the 2010-2016 period. This may be due to their older housing stocks and limited access to public transportation and major employment opportunities. Nevertheless, the Green Line Extension may bring increased housing demand to these districts and trigger building renovation, new construction, and transaction activities. In fact, District 4, where a new Green Line station is planned, saw an increase of condominium sales in recent years despite declines in condominium sales in all the other districts. District 7 and District 2 had relatively high median sale prices and above average price growth between 2010 and 2016. This may have been attributed to higher housing quality in these two districts, and their proximity to commercial services, job opportunities and transit facilities. The new Green Line Extension might accelerate the transaction activities in District 2.

**Map 1
Somerville Assessing Districts**



- **The majority of residential properties sold in the past seven years had a long holding period greater than 6 years, except for condominiums, which turnover more frequently.**
About a half of all residential properties sold during the past seven years were held for longer than 6 years before the most recent sale. Another 22% were held for 3-6 years. Approximately 12% of all properties were sold within one year after the purchase, often a sign of speculative investment. Among different property types, condominium tends to have shorter holding periods, suggesting that condominiums are more likely to be treated as investment assets or as starter-homes for younger families; two-family and three-family homes tend to have longer holding periods, suggesting that they are more likely to be long-term owner-occupied or as long-term investments.
- **The nonresidential property market is small but has remained healthy since 2011 after recovering from a decline during the recession.**
Somerville has a relatively small nonresidential real estate market which experiences limited and fluctuating sales on an annual basis. Nonresidential property transactions experienced a noticeable decline during the recession, but have recovered strongly since 2011. This is largely attributed to the robust economy in the region, which will continue to support the commercial and industrial real estate market with a consistently strong demand for businesses and services.

- **10-year projection indicates a steady growth of transaction volume and real estate transfer fee revenues.**

For the 2017-2026 period, RKG projects that Somerville could see between 880-970 new residential sales annually, with sales volumes ranging from \$668.3 million to over \$910 million. With a transfer fee of 1%, this could yield between \$6.6 million to \$9.1 million in annual fee revenue to support affordable housing in Somerville. Annual nonresidential sales would range from \$51 million to over \$74 million, yielding between \$500,000 and \$700,000 in annual fee revenue.

- **Potential transfer fee exemptions would reduce annual revenues by 43%-50%.**

Exemptions for lower-income households, long-term owners, and owners who sell at a loss are being contemplated. RKG projects that if the City were to provide these exemptions transfer fee revenues would be reduced significantly on an annual basis.

- AMI Exemption – The AMI Exemption targets buyers making 80% to 100% of the Boston area median income (AMI). The 80% to 100% AMI range is typically viewed as within an income range for workforce housing. The exemption would only have limited application in Somerville given the high cost of housing and would equal between \$272,071 and \$308,399 annually or approximately 3%-5% of total transfer fee revenues.
- Long-term Ownership Exemption – An exemption for long-term owners holding their residential properties at least 10 years or more would reduce annual transfer fee revenue between \$1.9 million and \$2.6 million annually or 28% to 29%. If the holding period is extended to 20 years, the transfer fee revenues are reduced to \$490,000 to \$688,000 annually over the 10-year projection period or roughly 7.5%.
- Residential Sales Loss Exemption – An exemption for residential owners (non-investors) that sell their property at a loss (adjusted for inflation) further reduces the annual fee revenue by \$1.1 million and \$1.5 million. If not adjusted for inflation, the loss is \$734,049 to \$991,006. This would result in a reduction of approximately 11% to 17% of total revenues annually.
- Total Impact of Exemptions - After adjusting for these three exemptions, the City could expect to raise between \$3.3 million and \$4.7 million (loss adjusted for inflation) or between \$3.7 million and \$5.2 million (not adjusted for inflation) in transfer fee revenue every year.

2 RESIDENTIAL SALES TRANSACTION ANALYSIS

A. METHODOLOGY

The residential property sales data comes from three sources: the city's 2016 Tax Property Assessment dataset which includes information on the properties' most recent sales updated to 2015, the Historic Sales dataset from the City which includes the sales that occurred before the most recent sale, and 2015-2016 residential sales records from the Warren Group, a private firm that tracks residential sales in the New England area via public records. RKG Associates, Inc. combined the sales records from the three sources, examined and removed duplicated records². RKG Associates then joined the sales data with the 2016 property assessment data to join the sales information with other property attributes such as assessed value, living area, ownership, type of unit, year built and similar information.

1. Arm's Length Sales

The arm's length sales are the primary focus for this analysis because they reflect sales activity between a willing seller and a willing buyer. Non-arm's length sales include distressed sales, transfers between family members, transfers into family trusts and the like. To determine which sales were arm's length, the consultant focused on those sales with prices that were between 50% and 200% of 2017 assessed values. This range was chosen based on the assumption that properties selling for less than 50% of their current assessed values are likely distressed properties. In contrast, properties selling for more than twice their assessed values are likely speculative sales based on their future potential or they are part of a more complex transaction that cannot be known from the available data. Typically, in a multiple-property transaction, only the total price of the transaction is recorded in the sales data. In some cases, RKG identified the individual properties and estimated the price for each. For those that were not identifiable, using the 200% figure reduced the likelihood of counting the total transaction multiple times.

For commercial sales, RKG used the same 200% threshold but reduced the distressed property threshold to 25% of 2016 assessed values (Chapter 3). This was necessary because the data analysis went back 10 years (2007) rather than 7 years (2010) in the residential sales analysis creating a greater spread between older sales values and current assessed values. Somerville assessed values have risen significantly in recent years, therefore, using the 2016 assessed value as a benchmark may skew the real price/value ratio when the transaction occurred. This analysis primarily focuses on residential sales that occurred between 2010 and 2016. The change in assessed value during this period has been robust but can be accommodated by the 50% - 200% ratio range. The removal of non-arm's length sales was necessary to avoid a general skewing of the data results.

A smaller portion of the sales records didn't match property information in the 2016 assessment data. This mainly involves sales that occurred in 2015-2016 and is largely due to changes of property address and Assessor's property identification numbers following new construction or redevelopment activities. RKG compared their sale prices with the sale prices of the same type of properties sold in the same year and made judgements on whether each sale is an arm's length sale or not.

² The Historic Sales dataset includes some most recent sales.

A total of 8,446 residential sales occurred during the 2010-2016 period, including 6,101 (72% of total) arm's length sales, 179 sales (2%) whose prices exceeded 200% of the 2016 assessed value, and 2,166 (26%) sales whose prices were below 50% of the assessed value. Of the 2,166 sales, 1,964 sales had a price that was lower than \$10,000, with many selling for the consideration of \$0 or \$1. Appendix – Table 1 provides more details on the distribution of these non-

**Table 1
Somerville Residential Sales Arm's Length Classification
2010-2016**

	Num of Sales	% of Total	Sales Value	% of Total
Arm's Length Sales	6,101	72%	\$3,453,102,903	88%
Price/Value Ratio > 2	179	2%	\$426,044,984	11%
Price/Value Ratio < 0.5	2,166	26%	\$55,609,113	1%
Total	8,446	100%	\$3,934,757,000	100%

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

arm's length sales among different property types and years. Sales with a very low price often involve the transfer of property between an individual and an entity such as a trust or LLC., or between family members. In other instances, multiple transactions involve a single property on the same day. Because these sales do not accurately reflect market rate pricing, they were excluded from the analysis. As shown in Table 1, arm's length sales reflect 72% of all transaction during the 2010-2016 period.

2. Property Type and Sales Price Categorizations

To evaluate the impacts of a real estate transfer fee on different types of residential properties, RKG grouped the sales by the following property types: (1) single-family, (2) two-family, (3) three-family, (4) condominiums, (5) small apartment buildings (4-8 units), and (6) large-scale apartment (8+ units). To estimate the potential fee revenues, the analysis also compared the sales within the following per unit price ranges: (1) \$0-\$250,000, (2) \$250,001-\$500,000, (3) \$500,001-\$750,000, (4) \$750,001-\$1,000,000, and (5) greater than \$1,000,000.

3. Estimating per Unit Sales Price

RKG Associates used the per unit price method to compare the sales trends across property types and geographic areas. For apartment sales, the per unit price is estimated by dividing the sales price of the entire property by the number of units in that property. The number of units was obtained from the City online property assessment database. For the sales of other types of residential properties which are all single-occupancy, the per unit sales price equals the property's sale price.

4. Estimating per Square Foot Sales Price

Different from the per unit sales price, RKG examined per square foot sales pricing for all residential properties. This made it easier to compare housing types where the number of units could not be determined. RKG estimated the per SF price by dividing the sales price of a property by the building area (in square feet) of that property. The building area information is missing for some sales records in which case RKG imputed the living area data based on the average size of other properties of the same type and sold in the same year.

B. ANNUAL SALES TRENDS

1. Sales Transaction and Volume Trends

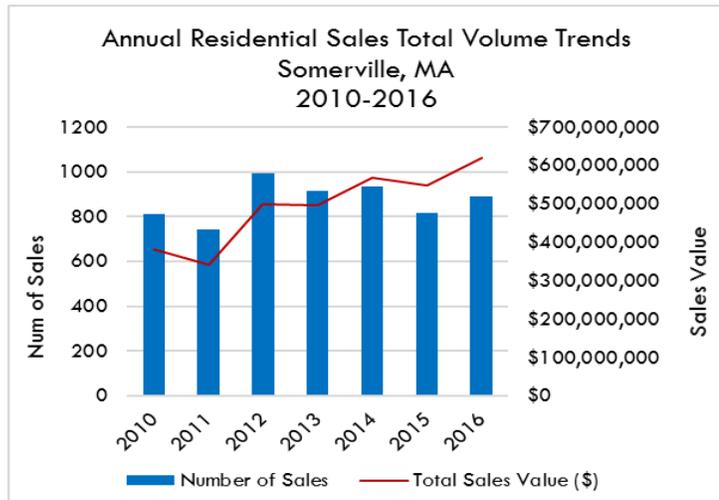
Somerville has a healthy residential market with steadily growing transaction values. Over the 2010-2016 period, the number of residential arm's length sales ranged from 741 to 994, for an average of 872 sales annually (Figure 1). At the same time, the total sales volume in current dollars grew rapidly

from \$382.2 million in 2010 to \$619.8 million in 2016, for an average annual growth rate of 10.4%. It should be noted that in 2010, the Boston area and the U.S. economy was starting to emerge from a deep national recession after two years marked by high mortgage foreclosures and much tighter mortgage underwriting standards. For all intents and purposes, 2010 was a low point for Somerville and the sales period contained in this analysis reflects a 7-year recovery, stabilization and growth period.

Among all types of residential properties, condominiums have consistently led Somerville's residential sales activity, representing 63% of the total transactions and 55% of the total sales volume during the study period (Figure 2/Table 2). The major condominium transaction growth occurred in 2012, increasing from 489 in 2011 to 679 in 2012.

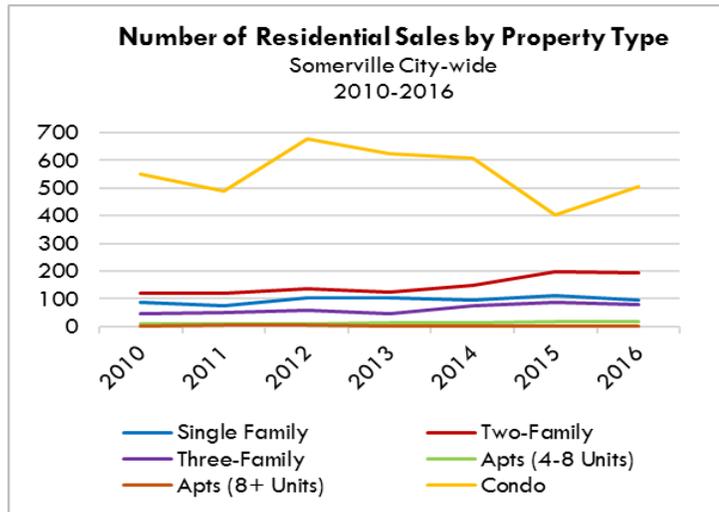
Condominium sales volume dropped during the 2013-2015 period, which led to declines of both the total residential sales volume and condominium's market share (Figure 2). Condominium sales experienced strong growth in 2016 from 404 sales in 2015 to 504 sales the following year. This accounted for 49% of the total sales value, but still below the 2010-2016 averages. This may suggest that condominium sales and investment has cooled down in recent years or new units have not yet been delivered to the market. While condominium sales decreased, the sales of two- and three-family homes grew significantly in 2014 and 2015, suggesting a strong demand and increased supply. In 2016, two-family and three-family sales accounted for 22% and 9% of the total sales transaction and 25% and 12% of the total value. Single-family sales have remained relatively stable, representing about 10% of the total sales and 10% of the total value.

Figure 1



Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

Figure 2



Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

Table 2
Somerville City-wide Residential Arm's Length Sales Annual Trends by Property Type
2010-2016

Property Type	2010				2011				2012			
	No. of Sales	% of Total	Total Sales Value	% of Total	No. of Sales	% of Total	Total Sales Value	% of Total	No. of Sales	% of Total	Total Sales Value	% of Total
Single Family	88	11%	\$40,445,968	11%	73	10%	\$34,826,071	10%	105	11%	\$53,867,686	11%
Two-Family	118	15%	\$55,055,414	14%	120	16%	\$57,589,690	17%	136	14%	\$70,080,230	14%
Three-Family	46	6%	\$25,587,427	7%	49	7%	\$27,877,467	8%	60	6%	\$36,136,021	7%
Apts (4-8 Units)	9	1%	\$5,424,545	1%	7	1%	\$3,940,400	1%	9	1%	\$8,425,000	2%
Apts (8+ Units)	2	0%	\$22,852,918	6%	3	0%	\$8,281,600	2%	5	1%	\$9,250,000	2%
Condo	550	68%	\$232,844,665	61%	489	66%	\$208,054,863	61%	679	68%	\$320,617,760	64%
Total	813	100%	\$382,210,937	100%	741	100%	\$340,570,091	100%	994	100%	\$498,376,697	100%

Property Type	2013				2014				2015			
	No. of Sales	% of Total	Total Sales Value	% of Total	No. of Sales	% of Total	Total Sales Value	% of Total	No. of Sales	% of Total	Total Sales Value	% of Total
Single Family	105	11%	\$59,397,643	12%	94	10%	\$56,699,075	10%	111	14%	\$75,409,570	14%
Two-Family	125	14%	\$80,337,398	16%	147	16%	\$100,228,466	18%	196	24%	\$149,122,569	27%
Three-Family	47	5%	\$36,973,062	7%	73	8%	\$64,135,383	11%	88	11%	\$76,445,400	14%
Apts (4-8 Units)	12	1%	\$17,402,315	4%	11	1%	\$9,614,500	2%	17	2%	\$21,857,575	4%
Apts (8+ Units)	1	0%	\$5,250,000	1%	2	0%	\$12,595,224	2%	-	0%	\$0	0%
Condo	624	68%	\$296,803,877	60%	607	65%	\$324,330,806	57%	404	50%	\$225,509,879	41%
Total	914	100%	\$496,164,295	100%	934	100%	\$567,603,454	100%	816	100%	\$548,344,993	100%

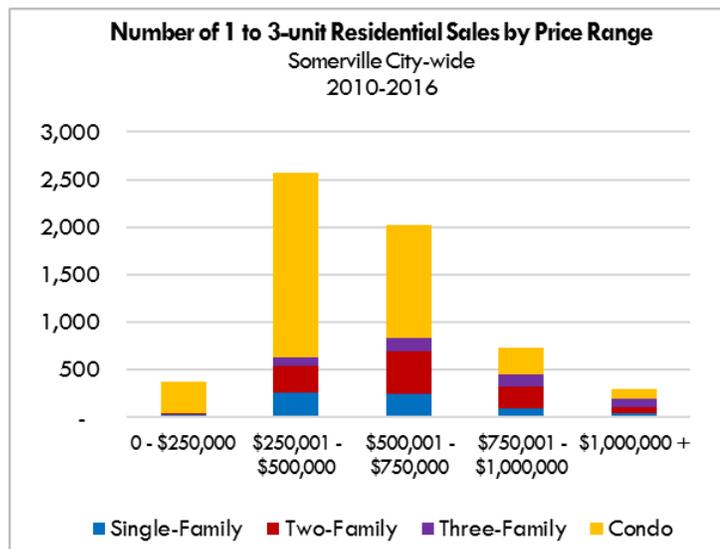
Property Type	2016				2010-2016 Total					
	No. of Sales	% of Total	Total Sales Value	% of Total	Total No. of Sales	Avg Annual No. of Sales	% of Total	Total Sales Value	Avg Annual Sales Value	% of Total
Single Family	93	10%	\$66,366,142	11%	669	96	11%	\$387,012,155	\$55,287,451	11%
Two-Family	195	22%	\$155,168,557	25%	1,037	148	17%	\$667,582,324	\$95,368,903	19%
Three-Family	79	9%	\$71,802,795	12%	442	63	7%	\$338,957,555	\$48,422,508	10%
Apts (4-8 Units)	16	2%	\$17,513,233	3%	81	12	1%	\$84,177,568	\$12,025,367	2%
Apts (8+ Units)	2	0%	\$2,200,210	0%	15	2	0%	\$60,429,952	\$8,632,850	2%
Condo	504	57%	\$306,781,499	49%	3,857	551	63%	\$1,914,943,349	\$273,563,336	55%
Total	889	100%	\$619,832,436	100%	6,101	872	100%	\$3,453,102,903	\$493,300,415	100%

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

2. Residential Sales by Value Range

Figure 3 and Table 3 show the distribution of 1 to 3-unit residential ownership property sales at different price ranges. This does not include apartment buildings, which are generally priced much higher depending on the number of units. During the seven-year study period, more than three quarters of all residential sales transactions were in the \$250,001 to \$750,000 price range, which accounted for more than two-thirds of the total sales volume. Another 12% of the sales (20% of sales volume) were in the \$750,001-\$1,000,000 range.

Figure 3



Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

Most single-family sales fell into the \$250,001-\$750,000 range (76%), though there was a noticeable share of high-price sales. The two-family sales were more evenly distributed among the three price ranges between \$250,001 and \$1,000,000, which reflects the diversity of qualities, sizes, and locations of these units. The three-family sales gravitated toward the higher price ranges, as close to half the sales were above \$750,000. Condominium sales in general had lower prices. Approximately 58.9% of all the condominium sales were priced below \$500,000 while only 10.1% were above \$750,000. In Somerville, condominiums have become the most affordably-priced homeownership option. Finally, despite rapid price appreciation during the study period, only 5% of the 1-3 unit residential sales were more than \$1 million.

During the 2010-2016 period, there were 96 sales of apartment properties, 84% of which (81 sales) were of smaller buildings with 4-8 units each and the rest of which (15 sales) were of larger buildings. Since 2012, the market transaction of 4-8-unit apartments has become more active in general.

Table 3
1-3 Unit Residential Property Sales Price Distribution by Property Type
2010-2016

Sale Price	0 - \$250,000				\$250,001 - \$500,000				\$500,001 - \$750,000			
	No. of Sales	% of Same Type	Total Sales Volume	% of Same Type	No. of Sales	% of Same Type	Totals Sales Amount	% of Same Type	No. of Sales	% of Same Type	Totals Sales Amount	% of Same Type
Single-Family	29	4.3%	\$6,398,606	1.7%	258	38.6%	\$99,291,411	25.7%	250	37.4%	\$153,004,818	39.5%
Two-Family	13	1.3%	\$2,791,328	0.4%	286	27.6%	\$114,390,966	17.1%	439	42.3%	\$273,356,081	40.9%
Three-Family	2	0.5%	\$481,000	0.1%	84	19.0%	\$35,157,164	10.4%	141	31.9%	\$88,324,517	26.1%
Condo	327	8.5%	\$65,185,899	3.4%	1,945	50.4%	\$747,672,471	39.0%	1,197	31.0%	\$727,147,045	38.0%
Total	371	6.2%	\$74,856,833	2.3%	2,573	42.8%	\$996,512,012	30.1%	2,027	33.8%	\$1,241,832,461	37.5%
Sale Price	\$750,001 - \$1,000,000				\$1,000,000 +				Total 2010-2016			
	No. of Sales	% of Same Type	Totals Sales Amount	% of Same Type	No. of Sales	% of Same Type	Totals Sales Amount	% of Same Type	No. of Sales	% of Same Type	Totals Sales Amount	% of Same Type
Single-Family	92	13.8%	\$78,688,820	20.3%	40	6.0%	\$49,628,500	12.8%	669	100%	\$387,012,155	100%
Two-Family	232	22.4%	\$198,658,068	29.8%	67	6.5%	\$78,385,881	11.7%	1,037	100%	\$667,582,324	100%
Three-Family	131	29.6%	\$112,966,779	33.3%	84	19.0%	\$102,028,095	30.1%	442	100%	\$338,957,555	100%
Condo	274	7.1%	\$231,626,184	12.1%	114	3.0%	\$143,311,750	7.5%	3,857	100%	\$1,914,943,349	100%
Total	729	12.1%	\$621,939,851	18.8%	305	5.1%	\$373,354,226	11.3%	6,005	100%	\$3,308,495,383	100%

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

3. Residential Sales Price Trends

Since 2010, both the median sales price per unit and the median price per SF have increased rapidly across all 1-3 unit properties (Table 4). This growth has been particularly strong for two-family properties and small apartment buildings. The median price per unit of condominiums has been increasing at a slower pace, which is consistent with the drop off in sales for condominiums in recent years. In addition, the stabilization of condominium prices during 2010-2012 was followed by a decline of condominium sales volume over the next 3 years. As condominium sales increased, so too did the price per unit. However, it should be noted that condominium units in Somerville are a fairly new phenomenon. Over the past decade, several smaller apartment buildings (2-family and 3-family) have been “condominium-ized,” while several new condo developments have been constructed. In the future, one would expect Somerville to see additional condominium development, particularly as part of higher density transit-oriented development along the proposed Green Line Extension.

In addition to the supply-demand dynamic, property characteristics such as land value, unit size, age, and building quality can also affect the sale price. This is reflected in the price trends per square foot during the 2010 to 2016 period, as single-family, two-family and three-family properties all increased faster on a price per square foot basis than on a price per unit basis. This occurred because of declining

average unit sizes. In contrast, condominiums' median price per SF grew slower than the median per unit price, which reflected a gradual increase in average unit size and improvements in quality of condo conversions. The median per SF price of condominiums has been consistently above that of the other 1 to 3-unit properties, mainly due to the influence of new construction.

For 4-8-unit apartments, the faster growth of per unit prices and the even faster growth of per SF prices indicates a strong demand and wide spread renovation activity. While there were few large apartment transactions to analyze, the sales that did occur showed large apartment properties had slower annual growth on a price per unit basis. Most large apartment sales data was from the sales of two large-scale properties (502-unit and 100-unit). The median per SF sale price was like that of the condominiums.

Table 4
Median per Unit Sale Price and per SF Sale Price Trends by Property Type
2010-2016

	2010	2011	2012	2013	2014	2015	2016	2010-2016 Overall	Avg Annual Growth
Median per Unit Sale Price									
Single-Family	\$392,500	\$450,000	\$474,900	\$548,700	\$550,000	\$625,000	\$630,000	\$538,000	10.1%
Two-Family	\$225,000	\$232,250	\$245,500	\$320,000	\$325,000	\$373,750	\$388,000	\$310,000	12.1%
Three-Family	\$183,333	\$178,333	\$196,250	\$233,333	\$285,000	\$282,500	\$300,000	\$250,000	10.6%
Apts (4-8 Units)	\$122,500	\$104,200	\$185,000	\$181,875	\$162,500	\$252,500	\$227,500	\$178,571	14.3%
Apts (8+ Units)	\$109,187	\$141,029	\$106,250	\$250,000	\$135,825	n/a	\$122,234	\$126,764	2.0%
Condo	\$380,000	\$391,500	\$412,500	\$440,000	\$505,000	\$540,000	\$579,500	\$458,000	8.8%
Median per SF Sale Price									
Single-Family	\$251.98	\$241.92	\$294.82	\$346.20	\$380.00	\$376.98	\$434.78	\$334.99	12.1%
Two-Family	\$173.71	\$187.31	\$199.63	\$247.79	\$259.43	\$290.32	\$302.11	\$244.15	12.3%
Three-Family	\$154.79	\$160.12	\$194.11	\$207.90	\$242.20	\$258.48	\$284.53	\$216.11	14.0%
Apts (4-8 Units)	\$139.96	\$147.06	\$191.57	\$175.07	\$234.71	\$273.86	\$284.14	\$192.96	17.2%
Apts (8+ Units)	\$135.80	\$154.44	\$106.70	\$278.18	\$144.64	n/a	\$193.07	\$154.44	7.0%
Condo	\$357.48	\$349.66	\$376.48	\$398.30	\$459.07	\$503.73	\$536.17	\$416.01	8.3%

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

Note: the per unit sale price for two-family and three-family homes and apartments is the entire property's sale price divided by the number of units in that property. The assumption is that all units in the same property have the same market value even though they cannot be sold separately.

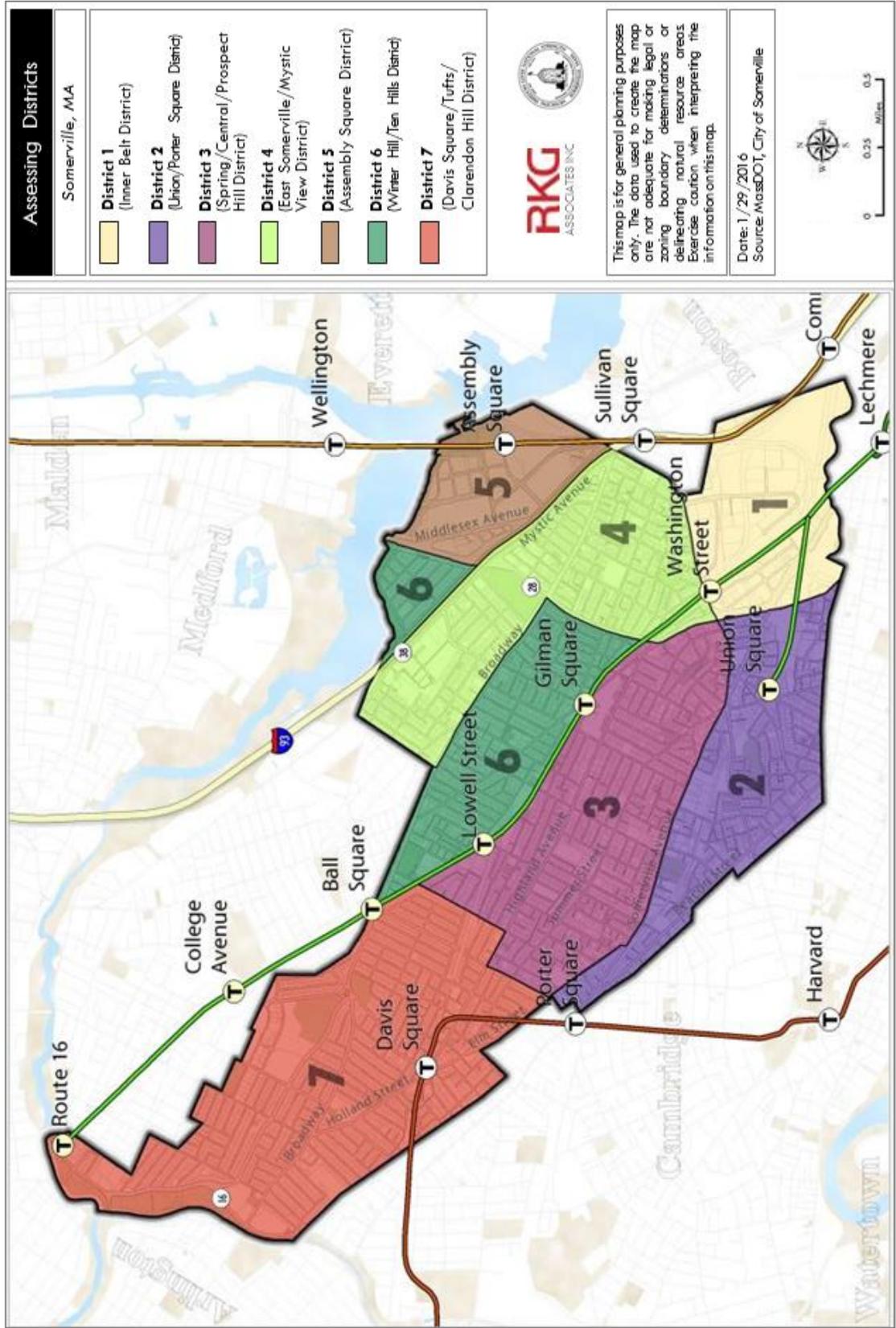
4. Residential Sales Activity by Assessing District

Beside the physical attributes of a property such as size, age, and quality, the location and neighborhood context can influence the sales potential and value, which in the aggregate can have an impact on future transfer fee revenues. RKG Associates divided the city into seven Neighborhood Assessment Districts. In collaboration with the City of Somerville Tax Assessor, RKG collapsed the City's nine Neighborhood Assessment Districts into seven districts based on property value index scores and similarities in land use characteristics (Map2). The map also includes the location of the proposed Green Line extension and future MBTA stations. The projections in this report assume that the Green Line Extension is built as planned and in the timeframe proposed.

The seven districts have distinctive property characteristics:

- **District 1 (Inner Belt District)** is located on the southeastern tip of the city, bordering Boston to the east and Cambridge to the south. The area is characterized primarily by industrial uses, which are comprised mainly of warehouse and light manufacturing buildings. Residential properties have limited presence. In the future, this area could change use from industrial to mixed-use including residential, but RKG does not anticipate those changes occurring within the next 10 years.
- **District 2 (Union/Porter Square District)** comprises the southern section of Somerville. It is bounded by Cambridge to the south, adjoining the Porter Square Shopping Center. District 2 is predominantly residential with a broad mix of single family units, condominiums, two-family, three family and small apartment buildings. It also has a significant mix of non-residential land uses including industrial, retail, automotive and office, as well as a variety of mixed use.
- **District 3 (Spring/Central/Prospect Hill District)** is in Somerville's core, and is bounded by Somerville Avenue to the south, the Lowell MBTA commuter rail line to the north, Medford Street to the east, and Hancock and Cedar Streets to the west. Neighborhoods include Prospect Hill, Spring Hill, Central Hill and Albion. District 3 is predominately residential with a diverse housing typology. Although two-family units are the most dominant housing type in the district, it also has the highest number of single family homes among the seven districts.
- **District 4 (East Somerville/Mystic Hill District)** is generally bounded by Washington Street, Route 28 (McGrath Highway), and Broadway to the south, I-93 to the north, Boston to the east and Medford to the west. Neighborhoods include East Somerville and Winter Hill North. Though also primarily residential, District 4 hasn't enjoyed the same level of residential property value appreciation as other areas of the city. Nevertheless, the MBTA Green Line Extension project presumably would accelerate the value appreciation of the adjacent properties, particularly in depressed neighborhoods where other development drivers are lacking. In this regard, the properties in the southern section of District 4 that falls into the 0.5-mile watershed of the planned Washington Street Station are likely to benefit more from the Green Line Extension.
- **District 5 (Assembly Square District)** fronts the Mystic River to the east, I-93 to the west, Route 28 to the north, and Boston to the south. This District is dominated by non-residential properties including retail, office, and the ongoing Assembly Row mixed use development project that was started after 2010. While the number of apartment units are growing in District 5, there have been no residential sales in this district.
- **District 6 (Winter Hill/Ten Hills District)** is geographically divided by District 4 and has a similar land use composition as District 4. It includes the section of Ten Hills neighborhood that is not part of District 4 to the north, and the Winter Hill and Magoun Square neighborhoods to the south. The north section is bounded by I-93, Route 28 and the Mystic River. The southern section is bounded by Broadway to the north, the Lowell MBTA commuter rail line to the south and Route 28 to the east. District 6 is split into two areas because the two areas have similar property characteristics. There are three GLX stations planned along the southeast border of the district, so, like District 4, property values are likely to appreciate.

Map 1
Somerville Residential Sales Assessing Districts



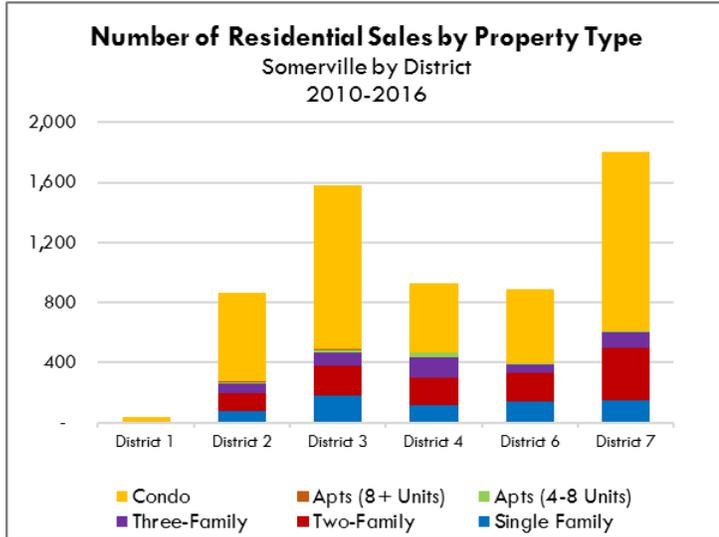
Source: MassGIS, City of Somerville, RKG Associates, Inc., 2016

- **District 7 (Davis Square/Tufts/Clarendon Hill District)** is the largest geographic area among the districts, and is the northwest section of the city. The district includes Tufts University, and the Davis Square, Teele Square and West Somerville neighborhoods. There is a MBTA Red Line transit station in Davis Square. District 7 has a significant number of residential properties, most of which are two-family and three-family homes and condominiums.

a. Sales Volume Trends by District

During the 2010-2016 period, approximately 30% of the sales (1,803 sales/\$1.2 billion value) occurred in District 7, representing 35% the total sales value (Figure 4 and Table 5). Another 25% sales occurred in District 3 (1,580 sales, \$900 million), accounting for 27% of the total value. As such, over half of the residential sales occurred within the neighborhoods between the Holland Street-Elm Street-Somerville Ave corridor and the future Green Line corridor. District 2, District 4, and District 6 each accounted for approximately 15% of the total number of sales, and 12-15% of the total sales value.

Figure 4



Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

Table 5
Residential Sales Volume by Property Type and District
2010-2016

	District 1 (Inner Belt District)		District 2 (Union/Porter Square District)		District 3 (Spring/Central/Prospect Hill District)		District 4 (East Somerville/Mystic View District)		District 6 (Winter Hill/Ten Hills District)		District 7 (Davis Square/Tufts/Clarendon Hill District)	
	No. of Sales	Total Sales Value	No. of Sales	Total Sales Value	No. of Sales	Total Sales Value	No. of Sales	Total Sales Value	No. of Sales	Total Sales Value	No. of Sales	Total Sales Value
Sales Volume												
Single-Family	-	\$0	77	\$45,003,100	184	\$107,651,674	120	\$47,147,401	142	\$66,653,704	146	\$120,556,276
Two-Family	-	\$0	119	\$78,852,864	197	\$133,672,165	183	\$85,027,895	188	\$102,761,718	350	\$267,267,682
Three-Family	-	\$0	67	\$56,505,773	82	\$66,733,467	133	\$79,314,162	54	\$36,038,800	106	\$100,365,353
Apts (4-8 Units)	-	\$0	8	\$11,027,130	22	\$25,059,233	27	\$22,938,805	15	\$16,128,000	9	\$9,024,400
Apts (8+ Units)	1	\$4,750,000	1	\$1,800,000	6	\$25,056,224	4	\$4,750,210	-	\$0	3	\$24,073,518
Condo	34	\$14,257,600	597	\$313,510,872	1,089	\$559,561,990	458	\$171,898,669	490	\$177,069,514	1,189	\$678,644,704
Total	35	\$19,007,600	869	\$506,699,739	1,580	\$917,734,753	925	\$411,077,142	889	\$398,651,736	1,803	\$1,199,931,933
% of City-wide Sales												
Single-Family	0.0%	0.0%	11.5%	11.6%	27.5%	27.8%	17.9%	12.2%	21.2%	17.2%	21.8%	31.2%
Two-Family	0.0%	0.0%	11.5%	11.8%	19.0%	20.0%	17.6%	12.7%	18.1%	15.4%	33.8%	40.0%
Three-Family	0.0%	0.0%	15.2%	16.7%	18.6%	19.7%	30.1%	23.4%	12.2%	10.6%	24.0%	29.6%
Apts (4-8 Units)	0.0%	0.0%	9.9%	13.1%	27.2%	29.8%	33.3%	27.3%	18.5%	19.2%	11.1%	10.7%
Apts (8+ Units)	6.7%	7.9%	6.7%	3.0%	40.0%	41.5%	26.7%	7.9%	0.0%	0.0%	20.0%	39.8%
Condo	0.9%	0.7%	15.5%	16.4%	28.2%	29.2%	11.9%	9.0%	12.7%	9.2%	30.8%	35.4%
Total	0.6%	0.6%	14.2%	14.7%	25.9%	26.6%	15.2%	11.9%	14.6%	11.5%	29.6%	34.7%

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

The breakdown of property sales by type varied by district. In District 4, the sales of three-family homes and apartments represented 30.1%, 33.3%, and 26.7% of the city's total of each type, substantially higher than the percentage of the district's sales of all property types (15.2%). On the other hand, condominium sales in District 4 were relatively low. District 3's sales gravitated toward larger apartments and condominiums, while District 6 primarily experienced single-family and two-family home sales. District 2 and District 7 experienced sales in all residential categories, with condos leading the way.

The condominium sales increase that occurred in 2012 was mainly driven by sales growth in District 2 and District 7. Both districts are close to Cambridge and the region's major institutions. The job growth in Cambridge and the vibrant rental housing market provided the foundation of rapid property value appreciation, which may have motivated speculative housing investments and condo conversions. After 2012, all the districts except for District 4 experienced a decline in condominium sales, which led to the city-wide sales decline. On the other hand, the sales growth of three-family homes after 2013 mainly came from District 7, District 6, District 4, and District 3 and the sales growth of two-family units after 2014 mainly came from District 7, District 2, and District 3 (Table 6).

Moreover, in some districts, the previous land use pattern appears to have changed gradually in response to the market demand. District 4, historically not a major condominium market, became the main driver of condominium sales in recent years, which also contributed to the district's rising share in the city's total sales. Meanwhile, the decline of condominium sales in District 7 and District 6 led to a decline of both districts' overall market share, but also indicated a shift in market demand from condominiums to two-family and three-family homes. However, given the rate of condo conversions in Somerville, it is likely that some of these properties have been condominium-ized.

Table 6
Residential Sales Volume Annual Trends by Property Type and District
2010-2016

	2010		2011		2012		2013		2014		2015		2016		Avg Annual	
	No. of Sales	Sales Value														
District 1 (Inner Belt District)																
Single-Family	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0
Two-Family	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0
Three-Family	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0
Apts (4-8 Units)	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0
Apts (8+ Units)	-	\$0	-	\$0	-	\$0	-	\$0	1	\$4,750,000	-	\$0	-	\$0	0	\$678,571
Condo	3	\$1,169,600	4	\$1,231,250	7	\$2,677,000	4	\$1,520,000	9	\$3,881,750	3	\$1,533,000	4	\$2,245,000	5	\$2,036,800
Sub-total	3	\$1,169,600	4	\$1,231,250	7	\$2,677,000	4	\$1,520,000	10	\$8,631,750	3	\$1,533,000	4	\$2,245,000	5	\$2,715,371
District 2 (Union/Porter Square District)																
Single-Family	10	\$5,085,000	5	\$2,183,000	13	\$6,885,500	8	\$4,324,200	16	\$8,116,000	13	\$8,744,400	12	\$9,665,000	11	\$6,429,014
Two-Family	9	\$4,453,170	16	\$8,006,166	14	\$7,602,900	17	\$10,603,000	21	\$14,769,028	18	\$13,956,500	24	\$19,462,100	17	\$11,264,695
Three-Family	9	\$5,418,202	4	\$2,214,350	12	\$7,827,221	7	\$7,690,000	9	\$7,915,000	15	\$14,314,500	11	\$11,126,500	10	\$8,072,253
Apts (4-8 Units)	-	\$0	-	\$0	-	\$0	2	\$3,639,630	1	\$787,500	4	\$5,360,000	1	\$1,240,000	1	\$1,575,304
Apts (8+ Units)	-	\$0	-	\$0	1	\$1,800,000	-	\$0	-	\$0	-	\$0	-	\$0	0	\$257,143
Condo	91	\$37,245,660	72	\$29,267,263	118	\$67,869,183	78	\$37,592,472	79	\$42,228,066	75	\$45,367,749	84	\$53,940,479	85	\$44,787,267
Sub-total	119	\$52,202,032	97	\$41,670,779	158	\$91,984,804	112	\$63,849,302	126	\$73,815,594	125	\$87,743,149	132	\$95,434,079	124	\$72,385,677
District 3 (Spring/Central/Prospect Hill District)																
Single-Family	21	\$9,889,500	24	\$11,732,682	34	\$17,563,850	36	\$20,152,000	17	\$11,168,500	28	\$21,382,900	24	\$15,762,242	26	\$15,378,811
Two-Family	17	\$8,694,900	18	\$8,605,570	24	\$13,060,650	23	\$15,545,434	39	\$27,287,011	37	\$28,837,600	39	\$31,641,000	28	\$19,096,024
Three-Family	9	\$5,967,500	10	\$6,052,017	10	\$6,282,900	7	\$6,001,250	15	\$13,870,500	19	\$17,160,400	12	\$11,398,900	12	\$9,533,352
Apts (4-8 Units)	3	\$1,846,000	1	\$565,000	2	\$2,075,000	4	\$7,680,000	1	\$650,000	6	\$8,545,000	5	\$3,698,233	3	\$3,579,890
Apts (8+ Units)	1	\$2,125,000	1	\$4,936,000	2	\$4,900,000	1	\$5,250,000	1	\$7,845,224	-	\$0	-	\$0	1	\$3,579,461
Condo	139	\$69,519,803	157	\$68,474,225	167	\$76,980,615	174	\$87,239,560	187	\$104,484,932	104	\$56,655,268	161	\$96,207,587	156	\$79,937,427
Sub-total	190	\$98,042,703	211	\$100,365,494	239	\$120,863,015	245	\$141,868,244	260	\$165,306,167	194	\$132,581,168	241	\$158,707,962	226	\$131,104,965
District 4 (East Somerville/Mystic View District)																
Single-Family	17	\$5,047,874	11	\$3,030,636	16	\$4,793,024	19	\$7,163,567	14	\$5,426,500	25	\$13,076,400	18	\$8,609,400	17	\$6,735,343
Two-Family	27	\$9,084,420	27	\$9,274,380	27	\$9,557,960	15	\$7,442,054	21	\$11,145,399	37	\$20,476,219	29	\$18,047,463	26	\$12,146,842
Three-Family	14	\$5,846,000	16	\$6,804,600	18	\$8,075,000	15	\$8,375,812	14	\$9,370,250	29	\$21,040,500	27	\$19,802,000	19	\$11,330,595
Apts (4-8 Units)	2	\$1,098,545	5	\$2,646,000	5	\$4,430,000	4	\$3,509,685	3	\$2,229,000	3	\$2,300,575	5	\$6,725,000	4	\$3,276,972
Apts (8+ Units)	-	\$0	-	\$0	2	\$2,550,000	-	\$0	-	\$0	-	\$0	2	\$2,200,210	1	\$678,601
Condo	44	\$13,227,848	48	\$12,820,916	74	\$21,914,260	86	\$30,513,255	69	\$31,637,053	62	\$26,157,585	75	\$35,627,752	65	\$24,556,953
Sub-total	104	\$34,304,687	107	\$34,576,532	142	\$51,320,244	139	\$57,004,373	121	\$59,808,202	156	\$83,051,279	156	\$91,011,825	132	\$58,725,306
District 6 (Winter Hill/Ten Hills District)																
Single-Family	22	\$7,690,144	15	\$5,626,753	21	\$8,185,912	17	\$8,254,000	24	\$12,908,075	22	\$12,359,820	21	\$11,629,000	20	\$9,521,958
Two-Family	29	\$11,236,580	26	\$11,857,974	27	\$11,418,602	19	\$10,975,310	21	\$11,700,359	29	\$18,386,900	37	\$27,185,993	27	\$14,680,245
Three-Family	6	\$3,175,500	4	\$1,795,000	6	\$4,032,000	9	\$5,762,000	12	\$8,571,000	7	\$5,050,000	10	\$7,653,300	8	\$5,148,400
Apts (4-8 Units)	2	\$1,500,000	-	\$0	-	\$0	2	\$2,573,000	5	\$4,748,000	3	\$3,957,000	3	\$3,350,000	2	\$2,304,000
Apts (8+ Units)	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0
Condo	93	\$26,268,698	61	\$16,769,884	84	\$28,957,827	89	\$31,081,689	64	\$26,644,277	51	\$22,707,600	48	\$24,639,539	70	\$25,295,645
Sub-total	152	\$49,870,922	106	\$36,049,611	138	\$52,594,341	136	\$58,645,999	126	\$64,571,711	112	\$62,461,320	119	\$74,457,832	127	\$56,950,248
District 7 (Davis Square/Tufts/ Clarendon Hill District)																
Single-Family	18	\$12,733,450	18	\$12,253,000	21	\$16,439,400	25	\$19,503,876	23	\$19,080,000	23	\$19,846,050	18	\$20,700,500	21	\$17,222,325
Two-Family	36	\$21,586,344	33	\$19,845,600	44	\$28,440,118	51	\$35,771,600	45	\$35,326,669	75	\$67,465,350	66	\$58,832,001	50	\$38,181,097
Three-Family	8	\$5,180,225	15	\$11,011,500	14	\$9,918,900	9	\$9,144,000	23	\$24,408,633	18	\$18,880,000	19	\$21,822,095	15	\$14,337,908
Apts (4-8 Units)	2	\$980,000	1	\$729,400	2	\$1,920,000	-	\$0	1	\$1,200,000	1	\$1,695,000	2	\$2,500,000	1	\$1,289,200
Apts (8+ Units)	1	\$20,727,918	2	\$3,345,600	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	0	\$3,439,074
Condo	180	\$85,413,056	147	\$79,491,325	229	\$122,218,875	193	\$108,856,901	199	\$115,454,728	109	\$73,088,677	132	\$94,121,142	170	\$96,949,243
Sub-total	245	\$146,620,993	216	\$126,676,425	310	\$178,937,293	278	\$173,276,377	291	\$195,470,030	226	\$180,975,077	237	\$197,975,738	258	\$171,418,848
City-wide																
Single-Family	88	\$40,445,968	73	\$34,826,071	105	\$53,867,686	105	\$59,397,643	94	\$56,699,075	111	\$75,409,570	93	\$66,366,142	96	\$55,287,451
Two-Family	118	\$55,055,414	120	\$57,589,690	136	\$70,080,230	125	\$80,337,398	147	\$100,228,466	196	\$149,122,569	195	\$155,168,557	148	\$95,368,903
Three-Family	46	\$25,587,427	49	\$27,877,467	60	\$36,136,021	47	\$36,973,062	73	\$64,135,383	88	\$76,445,400	79	\$71,802,795	63	\$48,422,508
Apts (4-8 Units)	9	\$5,424,545	7	\$3,940,400	9	\$8,425,000	12	\$17,402,315	11	\$9,614,500	17	\$21,857,575	16	\$17,513,233	12	\$12,025,367
Apts (8+ Units)	2	\$22,852,918	3	\$8,281,600	5	\$9,250,000	1	\$5,250,000	2	\$12,595,224	-	\$0	2	\$2,200,210	2	\$8,632,850
Condo	550	\$232,844,665	489	\$208,054,863	679	\$320,617,760	624	\$296,803,877	607	\$324,330,806	404	\$225,509,879	504	\$306,781,499	551	\$273,563,336
Total	813	\$382,210,937	741	\$340,570,091	994	\$498,376,697	914	\$496,164,295	934	\$567,603,454	816	\$548,344,993	889	\$619,832,436	872	\$493,300,415

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017
District 5 (Assembly Square District) had no residential sales between 2010 to 2016.

b. Sales Price Trends by District

District 4 and District 6 had lower residential sales prices than other major residential areas in the city during the 2010-2016 period (Table 7). District 4 had the lowest median per unit sales price for single-family, two-family, and three-family homes, while District 6 had the lowest median per unit sales price for condominiums. The median per square foot sale prices also tended to be lower in District 4 and District 6. This is mainly because both districts are mostly mixed-use neighborhoods characterized by lower value residential properties with a concentration of urban commercial uses and shops. These districts don't enjoy the same benefit of being located next to higher value real estate in Cambridge.

**Table 7
Residential Sales Median Per Unit Price by Property Type and District
2010-2016**

	City wide	District 1 (Inner Belt District)	District 2 (Union/Porter Square District)	District 3 (Spring/Central/Pro spect Hill District)	District 4 (East Somerville/ Mystic View District)	District 6 (Winter Hill/Ten Hills District)	District 7 (Davis Square/ Tufts/ Clarendon Hill District)
2010-2016 Overall Median Price / Unit							
Single-Family	\$538,000	n/a	\$550,000	\$544,500	\$358,000	\$465,000	\$779,000
Two-Family	\$310,000	n/a	\$315,000	\$327,500	\$220,000	\$264,000	\$376,225
Three-Family	\$250,000	n/a	\$258,333	\$266,667	\$183,333	\$217,500	\$295,833
Apts (4-8 Units)	\$178,571	n/a	\$238,750	\$169,654	\$155,000	\$190,000	\$262,500
Apts (8+ Units)	\$126,764	\$47,500	n/a	\$188,542	\$106,262	n/a	\$105,883
Condo	\$458,000	\$396,500	\$457,000	\$490,000	\$357,500	\$326,250	\$530,000
2010-2016 Median Price/Unit Change							
Single-Family	\$237,500	n/a	\$275,500	\$220,000	\$135,950	\$234,375	\$457,500
Two-Family	\$163,000	n/a	\$156,250	\$133,050	\$142,500	\$167,500	\$136,250
Three-Family	\$116,667	n/a	\$161,421	\$107,500	\$108,333	\$80,167	\$163,500
Apts (4-8 Units)	\$105,000	n/a	n/a	-\$47,500	\$120,628	\$105,000	\$190,000
Apts (8+ Units)	\$13,047	n/a	n/a	n/a	n/a	n/a	n/a
Condo	\$199,500	\$206,900	\$253,500	\$164,000	\$202,250	\$226,500	\$200,000
2010-2016 Average Annual Growth Rate							
Single-Family	10.1%	n/a	9.7%	8.5%	6.9%	12.6%	11.1%
Two-Family	12.1%	n/a	10.6%	8.5%	14.0%	14.3%	7.5%
Three-Family	10.6%	n/a	13.1%	9.0%	12.7%	8.6%	12.7%
Apts (4-8 Units)	14.3%	n/a	n/a	-4.9%	19.3%	14.0%	25.9%
Apts (8+ Units)	2.0%	n/a	n/a	n/a	n/a	n/a	n/a
Condo	8.8%	9.0%	11.5%	6.2%	11.7%	15.0%	7.4%

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

Between 2010 and 2016, District 4 and District 6 had less significant growth in the per unit and square foot price. It suggests that locational disadvantages and condition issues may be resulting in weaker housing demand and slower price appreciation. This led to less development and renovation activities which further impeded the growth of property value and sales price. Similarly, District 3 also experienced below-average growth in sales prices, despite its slightly higher price levels compared with District 4 and District 6. District 3 was also the only district that experienced a decrease in median prices of rental housing. The proposed MBTA Green Line Extension is expected to mitigate some of the locational challenges and stimulate residential value growth and demand in those areas within a half-mile from the stations. As it will cut through the southwest corner of District 4 and run along the borders of District 6 and District 3, these areas may expect increased sales activity, redevelopment, renovation, and leasing activities, which would potentially accelerate residential sales price growth.

District 7 maintained the highest per unit prices for the sales of single-family, two-family, three-family homes, condominiums, and small apartments (Table 8). However, District 2 had higher median per square foot prices than District 7 for the sale of condominiums, single-family and two-family homes, and the median per SF prices for three-family homes and small apartments were second to District 7. Between 2010 and 2016, Districts 2 and 7 achieved above-average growth in per unit price and per SF price across all property types. In District 2 condominiums and two-family homes were more significant, whereas in District 7 single-family and three-family homes were more significant. The accelerated price growth in these two districts may largely be attributed to their proximity to commercial services, job opportunities, transit facilities, and the universities. University students are a major source of demand for rental housing, which incentivizes investment-oriented housing transactions. The lower per SF prices in District 7 suggest that the residential properties in this district tend to have larger sizes.

Table 8
Residential Sales Median Per SF Price by Property Type and District
2010-2016

	City wide	District 1 (Inner Belt District)	District 2 (Union/Porter Square District)	District 3 (Spring/Central/Pr ospect Hill District)	District 4 (East Somerville/ Mystic View District)	District 6 (Winter Hill/Ten Hills District)	District 7 (Davis Square/ Tufts/ Clarendon Hill District)
2010-2016 Overall Median Price/SF							
Single-Family	\$334.99	n/a	\$395.00	\$336.51	\$246.10	\$298.30	\$393.04
Two-Family	\$244.15	n/a	\$275.92	\$264.54	\$184.23	\$200.43	\$271.07
Three-Family	\$216.11	n/a	\$242.24	\$217.93	\$186.18	\$192.93	\$268.32
Apts (4-8 Units)	\$192.96	n/a	\$246.05	\$176.66	\$177.80	\$276.69	\$277.20
Apts (8+ Units)	\$154.44	\$43.83	\$86.12	\$235.84	\$149.68	n/a	\$144.88
Condo	\$416.01	\$329.88	\$450.61	\$440.99	\$356.71	\$336.81	\$431.82
2010-2016 Median Price/SF Change							
Single-Family	\$182.81	n/a	\$226.97	\$106.70	\$145.18	\$222.68	\$233.16
Two-Family	\$128.40	n/a	\$171.16	\$107.21	\$140.86	\$119.04	\$100.26
Three-Family	\$129.73	n/a	\$147.54	\$135.07	\$116.41	\$62.99	\$160.68
Apts (4-8 Units)	\$144.19	n/a	n/a	(\$48.74)	\$112.50	\$171.32	\$258.07
Apts (8+ Units)	\$57.27	n/a	n/a	n/a	n/a	n/a	n/a
Condo	\$178.69	\$163	\$200.20	\$178.65	\$165.79	\$175.20	\$174.68
2010-2016 Average Annual Growth Rate							
Single-Family	12.1%	n/a	11.8%	6.7%	11.7%	18.5%	12.1%
Two-Family	12.3%	n/a	13.5%	9.2%	17.1%	13.0%	7.8%
Three-Family	14.0%	n/a	13.2%	13.3%	15.3%	7.3%	13.1%
Apts (4-8 Units)	17.2%	n/a	n/a	-4.5%	11.4%	21.0%	39.6%
Apts (8+ Units)	7.0%	n/a	n/a	n/a	n/a	n/a	n/a
Condo	8.3%	9.0%	8.7%	8.1%	9.7%	10.4%	7.6%

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

Table 9 shows the sales volume by price range in each district. It confirms that District 4 and District 6 had lower-priced sales whereas District 2 and District 7 had higher-priced. In addition, District 4 had a noticeably high concentration of lowest-priced single-family sales while District 6 tallied the lowest-priced condominium sales. In District 7, high-price single-family and three-family homes contributed to the overall high price level, while in District 2, the sales are more evenly distributed among different price ranges.

**Table 9
Residential Sales Volume by Price Range and District
2010-2016**

Sale Price	0 - \$250,000			\$250,001 - \$500,000			\$500,001 - \$750,000			\$750,001 - \$1,000,000			\$1,000,000 +			Total 2010-2016						
	No. of Sales	% of Same Type	Total Sales Volume	No. of Sales	% of Same Type	Total Sales Amount	No. of Sales	% of Same Type	Total Sales Amount	No. of Sales	% of Same Type	Total Sales Amount	No. of Sales	% of Same Type	Total Sales Amount	No. of Sales	% of Same Type	Total Sales Amount				
District 1 (Inner Belt District)																						
Single Family	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	0%			
Two-Family	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	0%			
Three-Family	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	-	n/a	\$0	0%			
Condo	1	2.9%	\$236,250	26	76.5%	\$10,001,750	70.2%	70.2%	\$4,019,600	28.2%	28.2%	\$4,019,600	28.2%	28.2%	\$4,019,600	34	100%	\$14,257,600	100%			
Sub-total	1	2.9%	\$236,250	26	76.5%	\$10,001,750	70.2%	70.2%	\$4,019,600	28.2%	28.2%	\$4,019,600	28.2%	28.2%	\$4,019,600	34	100%	\$14,257,600	100%			
District 2 (Union/Porter Square District)																						
Single Family	-	0.0%	\$0	30	39.0%	\$11,928,500	26.5%	44.8%	\$20,157,100	44.8%	13	16.9%	\$11,167,500	24.8%	1	1.3%	\$1,750,000	3.9%	77	100%	\$45,003,100	100%
Two-Family	1	0.8%	\$100,000	28	23.5%	\$12,117,914	15.4%	43.6%	\$34,351,570	43.6%	24	20.2%	\$20,125,500	25.5%	11	9.2%	\$12,157,880	15.4%	119	100%	\$78,852,864	100%
Three-Family	-	0.0%	\$0	13	19.4%	\$5,601,314	9.9%	19.0%	\$10,717,138	19.0%	18	26.9%	\$16,049,321	28.4%	19	28.4%	\$24,138,000	42.7%	67	100%	\$56,505,773	100%
Condo	36	6.0%	\$7,122,152	325	54.4%	\$125,990,097	40.2%	30.3%	\$95,478,223	30.3%	46	7.7%	\$39,628,400	12.6%	32	5.4%	\$45,292,000	14.4%	597	100%	\$313,510,872	100%
Sub-total	37	4.3%	\$7,222,152	396	46.0%	\$155,637,825	31.5%	32.5%	\$160,704,031	32.5%	101	11.7%	\$86,970,721	17.6%	63	7.3%	\$83,337,880	16.9%	860	100%	\$493,872,609	100%
District 3 (Spring/Central/Prospect Hill District)																						
Single Family	2	1.1%	\$471,832	67	36.4%	\$27,476,900	25.5%	50.7%	\$54,525,942	50.7%	18	9.8%	\$15,334,000	14.2%	8	4.3%	\$9,843,000	9.1%	184	100%	\$107,651,674	100%
Two-Family	-	0.0%	\$0	43	21.8%	\$17,806,433	13.3%	43.1%	\$57,674,532	43.1%	46	23.4%	\$38,991,200	29.2%	16	8.1%	\$19,200,000	14.4%	197	100%	\$133,672,165	100%
Three-Family	-	0.0%	\$0	8	9.8%	\$3,591,500	5.4%	26.2%	\$17,462,667	26.2%	28	34.1%	\$27,532,800	41.3%	15	18.3%	\$18,146,500	27.2%	82	100%	\$66,733,467	100%
Condo	50	4.6%	\$10,093,380	524	48.1%	\$205,416,477	36.7%	44.4%	\$248,416,983	44.4%	80	7.3%	\$66,599,400	11.9%	26	2.4%	\$29,035,750	5.2%	1,089	100%	\$559,561,990	100%
Sub-total	52	3.4%	\$10,565,212	642	41.4%	\$254,291,310	29.3%	43.6%	\$378,080,124	43.6%	175	11.3%	\$148,457,400	17.1%	65	4.2%	\$76,225,250	8.8%	1,552	100%	\$867,619,296	100%
District 4 (East Somerville/Mystic View District)																						
Single Family	19	15.8%	\$4,104,524	74	61.7%	\$26,594,377	56.4%	31.1%	\$15,618,500	31.1%	1	0.8%	\$80,000	1.8%	-	0.0%	\$0	0.0%	120	100%	\$47,147,401	100%
Two-Family	10	5.5%	\$2,228,291	100	54.6%	\$37,093,871	43.6%	46.1%	\$39,199,733	46.1%	8	4.4%	\$6,506,000	7.7%	-	0.0%	\$0	0.0%	183	100%	\$85,027,895	100%
Three-Family	2	1.5%	\$481,000	50	37.6%	\$20,324,850	25.6%	36.1%	\$29,767,812	37.5%	29	21.8%	\$24,530,500	30.9%	4	3.0%	\$4,210,000	5.3%	133	100%	\$79,314,162	100%
Condo	85	18.6%	\$17,019,300	287	62.7%	\$103,499,669	60.2%	28.0%	\$48,079,700	28.0%	4	0.9%	\$3,300,000	1.9%	-	0.0%	\$0	0.0%	458	100%	\$171,898,669	100%
Sub-total	116	13.0%	\$23,833,115	511	57.2%	\$187,512,767	48.9%	42.9%	\$132,665,745	34.6%	42	4.7%	\$35,166,500	9.2%	4	0.4%	\$4,210,000	1.1%	894	100%	\$383,388,127	100%
District 6 (Winter Hill/Ten Hills District)																						
Single Family	8	5.6%	\$1,822,250	77	54.2%	\$28,867,634	43.5%	42.4%	\$28,252,400	42.4%	9	6.3%	\$7,611,420	11.4%	-	0.0%	\$0	0.0%	142	100%	\$66,653,704	100%
Two-Family	2	1.1%	\$463,037	84	44.7%	\$34,050,435	33.1%	50.5%	\$51,874,246	50.5%	17	9.0%	\$14,169,000	13.8%	2	1.1%	\$2,205,000	2.1%	188	100%	\$102,761,718	100%
Three-Family	-	0.0%	\$0	12	22.2%	\$5,164,500	14.3%	44.4%	\$14,885,000	41.3%	14	25.9%	\$11,419,300	31.7%	4	7.4%	\$4,570,000	12.7%	54	100%	\$36,038,800	100%
Condo	138	28.2%	\$27,263,639	267	54.5%	\$95,763,300	54.1%	25.2%	\$44,657,675	25.2%	7	1.4%	\$6,234,900	3.5%	3	0.6%	\$3,150,000	1.8%	490	100%	\$177,069,514	100%
Sub-total	148	16.9%	\$29,548,926	440	50.3%	\$163,945,869	42.9%	36.5%	\$139,669,321	36.5%	47	5.4%	\$39,434,620	10.3%	9	1.0%	\$9,925,000	2.6%	874	100%	\$382,523,736	100%
District 7 (Davis Square/Tufts/Clarendon Hill District)																						
Single Family	-	0.0%	\$0	10	6.8%	\$4,324,000	3.6%	28.6%	\$34,450,876	28.6%	51	34.9%	\$43,745,900	36.3%	31	21.2%	\$38,035,500	31.5%	146	100%	\$120,556,276	100%
Two-Family	-	0.0%	\$0	31	8.9%	\$13,322,313	5.0%	33.8%	\$90,256,000	33.8%	137	39.1%	\$118,866,368	44.5%	38	10.9%	\$44,823,001	16.8%	350	100%	\$267,267,682	100%
Three-Family	-	0.0%	\$0	1	0.9%	\$475,000	0.5%	15.4%	\$15,491,900	15.4%	24	22.6%	\$33,434,568	33.3%	42	39.6%	\$50,963,595	50.8%	106	100%	\$100,365,553	100%
Condo	17	1.4%	\$3,451,178	516	43.4%	\$207,001,178	30.5%	42.2%	\$286,494,864	42.2%	37	11.5%	\$115,863,484	17.1%	53	4.5%	\$65,834,500	9.7%	1,189	100%	\$678,644,704	100%
Sub-total	17	0.9%	\$3,451,178	558	31.2%	\$225,122,491	19.3%	36.6%	\$426,693,640	36.6%	364	20.3%	\$311,910,610	26.7%	164	9.2%	\$199,650,096	17.1%	1,791	100%	\$1,166,834,015	100%
City-wide																						
Single Family	29	4.3%	\$6,998,606	258	38.6%	\$99,291,411	25.7%	39.5%	\$153,004,818	39.5%	92	13.8%	\$78,688,820	20.3%	40	6.0%	\$49,628,500	12.8%	669	100%	\$387,012,155	100%
Two-Family	13	1.3%	\$2,791,328	286	27.6%	\$14,390,966	17.1%	40.9%	\$27,356,081	40.9%	232	22.4%	\$198,658,068	29.8%	67	6.5%	\$78,385,881	11.7%	1,037	100%	\$667,589,324	100%
Three-Family	2	0.5%	\$481,000	84	19.0%	\$3,157,164	10.4%	26.1%	\$8,324,517	26.1%	131	29.6%	\$112,966,779	33.3%	84	19.0%	\$102,028,095	30.1%	442	100%	\$338,957,555	100%
Condo	327	8.5%	\$65,185,899	1,945	50.4%	\$47,672,471	39.0%	38.0%	\$77,147,045	38.0%	274	7.1%	\$231,626,184	12.1%	114	3.0%	\$143,311,750	7.5%	3,857	100%	\$1,914,943,349	100%
Total	371	6.2%	\$74,856,833	2,573	42.8%	\$99,651,2012	30.1%	20.27	\$1,241,832,461	31.8%	729	12.1%	\$621,939,851	18.8%	305	5.1%	\$373,354,226	11.3%	6,005	100%	\$3,308,495,383	100%

Source: City of Somerville, Warren Group, RKG Associates, Inc.

C. ANALYSIS OF RESIDENTIAL HOLDING PERIOD

1. Methodology

One idea presented by the Mayor’s Transfer Fee Task Force involves the potential to exempt certain buyers and sellers from the proposed transfer fee based on their status as a long-time Somerville property owner. The implication of this exemption is that perhaps people or investors who have owned their properties for a long time and have invested in Somerville should be exempt from the transfer fee. The traditional example would be the person who purchased their home decades before and are now selling it to move into retirement housing. This type of sales transaction is different than an investor purchasing a property and flipping it within 12 months at a higher price without making any improvements to the property. There are many variations to both sale types. To better understand trends in property holding time, RKG Associates conducted an analysis to determine the actual distribution of sales based on the length of their holding period. Since the sales record doesn’t record whether a specific transaction is speculative investment-motivated, RKG used the holding period between the two most recent transactions to reflect the nature of the transaction. Typically, speculative investments may have shorter holding periods than sales made by long-time homeowners.

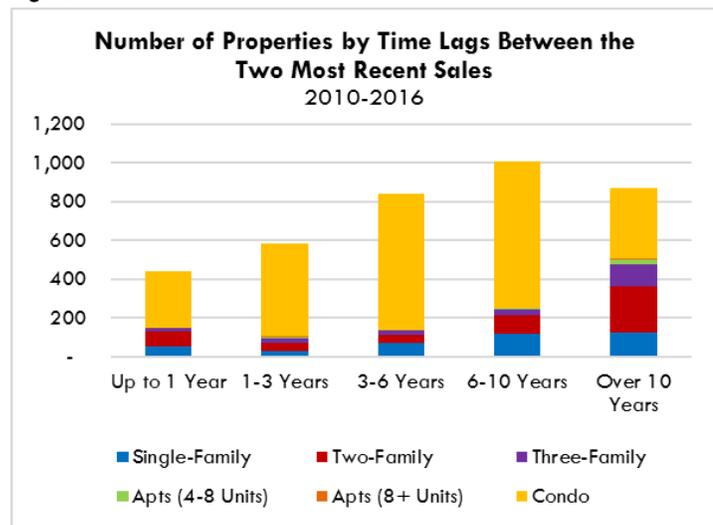
This analysis relied on the same data sources as the 2010-2016 residential sales analysis described previously. There are 5,052 residential properties that were sold at least once during the 2010-2016 period. This is different than the total number of residential sales (6,101 sales) because some properties sold more than once. Approximately 74% of them (3,744 properties) were sold more than once, though for some properties, the previous sale occurred before 2010. RKG analyzed the holding period between the two most recent sales, separating them into five holding period categories: (1) up to 1 year, (2) 1-3 years, (3) 3-6 years, (4) 6-10 years and (5) 10 years or greater.

2. Analysis Results

Most residential property sales analyzed had a long holding period between the two most recent sales. About one-half of the properties were held for longer than 6 years, including 1,008 properties in the 6-10-year range and 870 (23 properties) in the 10-years or longer range. Another 22% of the properties were held longer than 3 years and up to 6 years. Approximately 12% of the properties were resold within one year after the previous transaction (Figure 5).

Table 10 provides a breakout of the holding for each property type. Among the ownership properties, two-family and three-family homes tend to have the longest holding period, with 48% and 55% of these properties being held for longer than 6 years, while single-family homes turnover more regularly beyond 3 years. However, there have been a small number of single-family and two-family homes that were held for less than 1 year (128 properties total), which could reflect speculative investment activity. In comparison, only 14% of the condominiums were held longer than 10 years. In addition, 66.1% of all sales occurring

Figure 5



Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

within the first year of ownership were condominiums, which may indicate that condos are more likely to be traded as investment properties than other types of ownership residential properties.

Table 10
Holding Period Between the Two Most Recent Sales by Property Type
2010-2016

	Up to 1 Year		1-3 Years		3-6 Years		6-10 Years		Over 10 Years		Total	
	No. of Properties	% of Total										
Single-Family	55	13.9%	30	7.6%	68	17.1%	117	29.5%	127	32.0%	397	100.0%
Two-Family	73	14.8%	40	8.1%	44	8.9%	100	20.2%	237	48.0%	494	100.0%
Three-Family	18	9.0%	23	11.4%	22	10.9%	27	13.4%	111	55.2%	201	100.0%
Apts (4-8 Units)	2	5.3%	6	15.8%	2	5.3%	5	13.2%	23	60.5%	38	100.0%
Apts (8+ Units)	1	7.7%	5	38.5%	-	0.0%	-	0.0%	7	53.8%	13	100.0%
Condo	291	11.2%	482	18.5%	704	27.1%	759	29.2%	365	14.0%	2,601	100.0%
Total	440	11.8%	586	15.7%	840	22.4%	1,008	26.9%	870	23.2%	3,744	100.0%

Percentage of Total Sales by Holding Period

	Up to 1 Year		1-3 Years		3-6 Years		6-10 Years		Over 10 Years		Total	
	No. of Properties	% of All Types	No. of Properties	% of All Types	No. of Properties	% of All Types	No. of Properties	% of All Types	No. of Properties	% of All Types	No. of Properties	% of All Types
Single-Family	55	12.5%	30	5.1%	68	8.1%	117	11.6%	127	14.6%	397	10.6%
Two-Family	73	16.6%	40	6.8%	44	5.2%	100	9.9%	237	27.2%	494	13.2%
Three-Family	18	4.1%	23	3.9%	22	2.6%	27	2.7%	111	12.8%	201	5.4%
Apts (4-8 Units)	2	0.5%	6	1.0%	2	0.2%	5	0.5%	23	2.6%	38	1.0%
Apts (8+ Units)	1	0.2%	5	0.9%	-	0.0%	-	0.0%	7	0.8%	13	0.3%
Condo	291	66.1%	482	82.3%	704	83.8%	759	75.3%	365	42.0%	2,601	69.5%
Total	440	100.0%	586	100.0%	840	100.0%	1,008	100.0%	870	100.0%	3,744	100.0%

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

3 NON-RESIDENTIAL SALES ANALYSIS

A. METHODOLOGY

RKG Associates utilized non-residential sales data from two sources; the city’s 2016 Tax Property Assessment dataset which includes information of the properties’ most recent sales updated to mid-2015 and 2015-2016 commercial property sales records from the Warren Group, a private firm that tracks residential sales in the New England area via public records. Both datasets also contain property attributes such as land use type, assessed value, living area, and similar information.

1. Arm’s Length Sales:

Like the residential sales analysis presented in the last chapter, the non-residential sales analysis also focuses on arm’s length sales. Since this analysis covers the recessionary period when sales prices dropped well below 2016 assessed values, the sales price/assessed value ratio standard for deciding arm’s length sales was expanded to 25% - 200%.

Table 11
Somerville Non-Residential Arm’s Length Sales Classification
2007-2016

	Num of Sales	% of Total	Sales Value	% of Total
Arm’s Length Sales	182	55%	387,051,043	81%
Price/Value Ratio >2	24	7%	89,194,500	19%
Price/Value Ratio <0.5	126	38%	3,461,837	1%
Total	332	100%	479,707,380	100%

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

A total of 332 commercial property sales occurred during the 2007-2016 period, including 182 arm’s length sales, with 24 sales exceeding 200% of the 2016 assessed value, and 126 sales priced at or below 25% of the 2016 assessed value. Of the 126 sales, 117 sales had a price that was lower than \$10,000, with many selling for the consideration of \$0 or \$1. Sales with a very low price often involve the transfer of a property between an individual and an entity such as a trust or LLC., or between LLC members. In other instances, one low-price transaction appeared to be a component of a multi-property transaction. These sales are excluded from the analysis because they do not accurately reflect market rate sales values. As shown in Table 11, arm’s length sales reflect 55% of all transaction and 81% of the total transaction value during the 2007-2016 period.

2. Property type and sales price categorizations

To evaluate the impacts of a real estate transfer fee on different types of residential properties, RKG grouped the sales into five property types: mixed-use, office, retail & entertainment (including hotel), industrial & storage, and institutional & health care.

3. Estimating per square foot sales price

Different from the sale price, sales price per square foot represents the price that buyers were willing to pay on a building square foot basis. This is a better indicator of market price because while the per

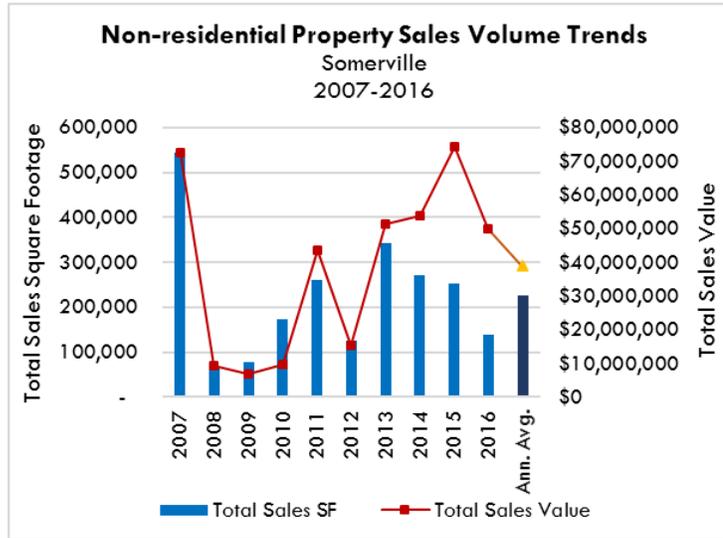
transaction price could vary greatly due to the sizes of properties, per square foot sales price tends to be more consistent and comparable across properties. It is also more common for commercial properties to be priced for sale and lease on a per square foot basis. RKG calculated the per square foot price by dividing the sales price by the gross building area (in square feet) of that property.

B. NON-RESIDENTIAL PROPERTY SALES TRENDS

1. Total Sales Volume Trends

Unlike the residential market, non-residential properties can experience significant variation from year-to-year. This is largely because these properties trade less frequently and there can be wide variation in type, quality and size of buildings being sold. Over the past 10 years, Somerville’s non-residential property market experienced a noticeable decline during the last recession, followed by a recovery starting in 2010 and another drop-off in 2016 (Figure 6). As shown in Table 12, on average there are 18.2 (225,386 square feet) non-residential property sales per year in the city, with the total transaction value being \$38.7 million. By comparison, this transaction value equals only 8% of the average annual transaction value for residential sales (\$493.3 million).

Figure 6



Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

Table 12
Annual Non-Residential Property Arm’s Length Sales Volume Trends

	2007	2008	2009	2010	2011	2012
Number of Sales	18	9	11	11	27	18
Total Sales Value	\$72,527,794	\$9,340,000	\$6,800,000	\$9,760,500	\$43,749,000	\$15,322,111
Total Sales SF	542,809	63,988	78,381	173,911	261,058	125,460
	2013	2014	2015	2016	10-Year Total	Ann. Avg.
Number of Sales	17	23	17	31	182	18.2
Total Sales Value	\$51,425,750	\$53,929,471	\$74,413,000	\$49,783,417	\$387,051,043	\$38,705,104
Total Sales SF	342,909	272,556	254,100	138,683	2,253,855	225,386

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

Leading up to and during the last recession, the sales volume dropped from the peak in 2007 to the bottom in 2010 – a 68% decline in building square footage and an 87% decline in annual sales value. The increase in sales square footage in 2010 from 2009 didn't generate a similar level of sales value growth, suggesting that the market started to warm up but primarily focused on lower-priced property types. The market rebounded in 2011, evidenced by a noticeable growth in sales square footage and a surge of total sales value. After 2011, the market has remained healthy through 2016.

2. Sales Volume and Price Trends by Property Type

During the 10-year study period 51% of the non-residential property transactions involved the sale of retail and entertainment space (93 sales, 805,479 square feet, \$123.4 million in value) (Table 13). However, these transactions only represented about one-third of the total transaction value and building square footage, indicating that many of these properties were relatively small, lower value properties. During the study period, retail & entertainment properties maintained a more stable level of sales activities than other non-residential properties. This suggests that this section of the non-residential real estate market benefited from the region's robust demographic and economic foundations which supported local retail businesses especially during the recession.

Table 13
Somerville Non-Residential Property Sales Volume Trends by Property Type
2007-2016

	Num of Sales	Total Sales SF	Total Sales Value	Num of Sales	Total Sales SF	Total Sales Value	Num of Sales	Total Sales SF	Total Sales Value
	2007			2008			2009		
Mixed-use	1	10,047	\$1,330,000	1	7,261	\$975,000	1	3,101	\$300,000
Office	3	89,198	\$22,198,692	1	8,032	\$715,000	2	5,869	\$575,000
Retail & Entertainment	11	156,304	\$15,590,300	7	48,695	\$7,650,000	5	28,536	\$3,550,000
Industrial & Storage	3	287,260	\$33,408,802	0	-	\$0	3	40,875	\$2,375,000
Institutional & Health Care	0	-	\$0	0	-	\$0	0	-	\$0
Total	18	542,809	\$72,527,794	9	63,988	\$9,340,000	11	78,381	\$6,800,000
	2010			2011			2012		
Mixed-use	0	-	\$0	2	5,011	\$1,400,000	0	-	\$0
Office	2	3,816	\$455,000	13	120,922	\$22,584,000	5	12,476	\$2,957,111
Retail & Entertainment	7	155,479	\$7,750,500	9	71,365	\$12,690,000	10	50,020	\$7,415,000
Industrial & Storage	2	14,616	\$1,555,000	3	63,760	\$7,075,000	2	61,140	\$4,450,000
Institutional & Health Care	0	-	\$0	0	-	\$0	1	1,824	\$500,000
Total	11	173,911	\$9,760,500	27	261,058	\$43,749,000	18	125,460	\$15,322,111
	2013			2014			2015		
Mixed-use	0	-	\$0	2	5,227	\$1,287,500	0	-	\$0
Office	2	7,204	\$1,547,000	3	29,830	\$7,470,000	3	135,246	\$53,340,000
Retail & Entertainment	10	89,887	\$8,776,000	15	140,222	\$16,836,971	10	52,176	\$13,023,000
Industrial & Storage	5	245,818	\$41,102,750	2	92,407	\$27,300,000	4	66,678	\$8,050,000
Institutional & Health Care	0	-	\$0	1	4,870	\$1,035,000	0	-	\$0
Total	17	342,909	\$51,425,750	23	272,556	\$53,929,471	17	254,100	\$74,413,000
	2016			10-Year Total			10-Year Annual Average		
Mixed-use	10	38,518	\$9,847,200	17	69,165	\$15,139,700	1.7	6,917	\$1,513,970
Office	2	7,618	\$2,575,000	36	420,211	\$114,416,803	3.6	42,021	\$11,441,680
Retail & Entertainment	9	12,795	\$30,083,506	93	805,479	\$123,365,277	9.3	80,548	\$12,336,528
Industrial & Storage	10	79,752	\$7,277,711	34	952,306	\$132,594,263	3.4	95,231	\$13,259,426
Institutional & Health Care	0	-	\$0	2	6,694	\$1,535,000	0.2	669	\$153,500
Total	31	138,683	\$49,783,417	182	2,253,855	\$387,051,043	18.2	225,386	\$38,705,104

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

Approximately 20% of the transactions were office space, accounting for 30% of the total transaction value. Office transactions dropped dramatically in total square footage and value during the recession, but quickly bounced back in 2011 and became a primary driver of market recovery. This was mainly due to the sales of new luxury office condos. In 2015, the transactions of larger office buildings contributed to the peak of total non-residential sales transaction value. In the long-term, the strong presence of Boston’s professional and technical service industry is likely to generate demand for new office space in the future; particularly around several new Green Line MBTA stations.

Industrial properties represented the largest share of sales square footage (42%) and value (34%) with relatively smaller number of transactions (19%). In fact, the peak year for non-residential transactions following the recession occurred in 2013. This was largely due to a surge in industrial/storage property sales exceeding \$41.1 million.

Due to the type, size, location, and other attributes of non-residential properties, the annual change of median per square feet sales price doesn’t present a distinctive pattern, unlike residential sales (Table 14). As a property type, industrial & storage space tends to have the lowest sales price per/SF while office space is the highest.

Table 14
Somerville Non-Residential Property per Square Feet Sales Price Trends

	Mixed-use	Office	Retail & Entertainment	Industrial & Storage	Institutional & Health Care
2007	\$132.38	\$326.19	\$196.73	\$106.64	n/a
2008	\$134.28	\$89.02	\$147.06	n/a	n/a
2009	\$96.74	n/a	\$137.84	\$56.50	n/a
2010	n/a	\$279.29	\$117.62	\$143.69	n/a
2011	\$331.85	\$392.86	\$174.04	\$103.53	n/a
2012	n/a	\$296.30	\$172.20	\$139.20	\$274.12
2013	n/a	\$214.73	\$187.97	\$172.45	n/a
2014	\$251.23	\$285.10	\$321.69	\$212.84	\$212.53
2015	n/a	\$240.84	\$263.93	\$119.74	n/a
2016	\$272.38	\$343.39	\$387.60	\$89.14	n/a
2007-2016	\$238.41	\$302.08	\$210.00	\$116.57	\$243.32

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

4 REAL ESTATE INTERVIEWS

A. INTRODUCTION

RKG Associates, Inc. conducted a series of interviews with real estate professionals in the Somerville market to get their perspectives on the proposed residential transfer fee and its application and use. The Mayor's Transfer Fee Task Force provided names of local industry professionals in areas including: real estate brokerage and sales, residential development, banking and mortgage lending, real estate settlement and non-profit housing development. Each professional was asked a series of questions to gauge their opinion about the transfer fee concept and its proposed use in addressing the City's future affordable housing needs.

B. SUMMARY OF INTERVIEW COMMENTS

1. **Question: Will the adoption of a 1% Transfer Fee Materially Change the Dynamics of the Somerville Residential Real Estate Market?**

- All those interviewed did not believe a 1% transfer fee on residential transactions would impact the volume of transactions or change buyer/seller behavior for typical residential sales.
- Some people raised doubt about the fee's impact during a down market, unlike today's hot market conditions.
- Brokers believe the fee will be "baked into" the list price and will be paid for by the buyer. The seller will have the option to give back or share the fee with the buyer at closing if necessary in a down or "buyers' market."
- A 1% fee could impact investor transactions, not during the early project development stage but at the point of reversion as the developer seeks to sell the project to investors. If imposed on the buyer, the buyer will simply reduce their purchase offer, which would reduce the developer's return on investment. This might result in investors pursuing projects in other communities to avoid this issue.

2. **Question: Should any Accommodation be given to Exempt Certain Buyers and Sellers from the Transfer Fee? Examples given included first homebuyers and long-term residents of Somerville.**

- There is very little support from those interviewed for any exemptions to the transfer fee.
- Anything that would be difficult to administer was considered undesirable.
- Some people questioned whether "first homebuyers" were a worthy group for exemption given the high entry point (\$600,000) for buying a home in Somerville. Generally, it was believed that most people buying residential property in Somerville must be doing quite well to afford the high prices and there is no need to exempt them.

- One broker suggested setting the exemption at a certain price point (<\$500,000) rather than the status of the buyer.
- Long-time homeowners were considered a worthy population but some people who have owned their properties for years, but have not reinvested, would be rewarded for neglecting their properties.
- There should be some sensitivity to elderly residents who have capital gains exposure because their family home has risen in value more than the IRS's allowable limits for capital gains exemption (\$250,000 profit); especially when they need their sales proceeds to gain access to retirement or assisted living facilities. Also, people who are "underwater" and their sales price is less than their mortgage balance should not be exposed to the transfer fee at closing.
- Respondents believed that the Home Rule Petition may need to offer exemptions to make the policy more acceptable to residents and investors.

3. Question: Should the Transfer Fee be suspended during a down Real Estate Cycle?

- Most respondents believe that rolling back the fee during a down real estate cycle made intuitive sense, but few could conceive of the trigger that would roll back and reinstate the fee. This is perhaps a concept that sounds better in theory than in practice, but will need to be tied to economic or market indicators that can be measured and monitored.
- Once the fee is in place, it could be very difficult to roll back and harder politically to reinstate.
- If transfer fee revenue is used to underwrite a municipal bond issue, the bond market will resist the roll-back of future revenues dedicated to bond repayments unless backed by the full faith and credit of the city.

4. Question: Do you Believe Affordable Housing is a Suitable Objective for a Dedicated Transfer Fee?

- Everyone believed that affordable housing was a laudable goal for Somerville and it is a problem that is growing in importance.
- Respondents wanted to know more about who would administer affordable housing programs and how the revenues would be used to improve affordable housing.
- All respondents believe that the Mayor and Board of Alderman will get strong push back from the real estate community when the fee is announced.
- Many people interviewed believed that the Mayor should work through the Chamber of Commerce to present his plan to the real estate and business community before the proposal is taken up by the Board of Alderman.

5 TRANSFER FEE REVENUE PROJECTIONS AND IMPACT ANALYSIS

A. INTRODUCTION

To evaluate the potential impacts of the proposed transfer fee policy, RKG Associates developed a transfer fee impact model to estimate residential and nonresidential sales volumes over the next ten years (2017-2026) in the City of Somerville, and the transfer fee revenue derived from those transactions. The projection model used historical sales activity to understand the recent level of sales activity occurring annually. In addition, the consultants utilized analysis results completed in 2015 for the City of Somerville Assessor's Department relative to real estate value impacts resulting from the proposed Green Line Extension to drive future sales values. In addition, RKG measured the revenue impacts associated with three separate residential exemptions to the transfer fee policy.

The first exemption is tied to two household income thresholds; one at 100% of area median income (AMI) and one at 80% of AMI. Tying the exemption to AMI recognizes that households with incomes at or below the area median income could have difficulty buying a home in Somerville with or without the transfer exemption. While this exemption would likely include many first-time homebuyers, it would not be confined to that segment of the homebuying market. Secondly, RKG included an exemption for long-time property owners, primarily those holding their residential properties for more than ten years before selling them. The exemption makes the distinction between long-time residents of the City who have invested in Somerville over many years and potential investors engaged in a process of buying and selling real estate for quick financial gain. The third exemption is granted to residential homeowners who sell their property at a financial loss, measured by the price difference between a property's latest and previous sale prices. While all three exemptions have many layers of complexity to them, the Mayor's Transfer Fee Task Force wanted to understand how such exemptions could potentially impact future transfer fee revenues. With respect to investment and non-residential property sales, RKG did not assume any exemptions to the transfer fee. It was assumed that investors and business owners would take necessary steps to protect their investment risk and would be subject to the transfer fee.

B. 10-YEAR RESIDENTIAL SALES PROJECTIONS

1. Model Assumptions

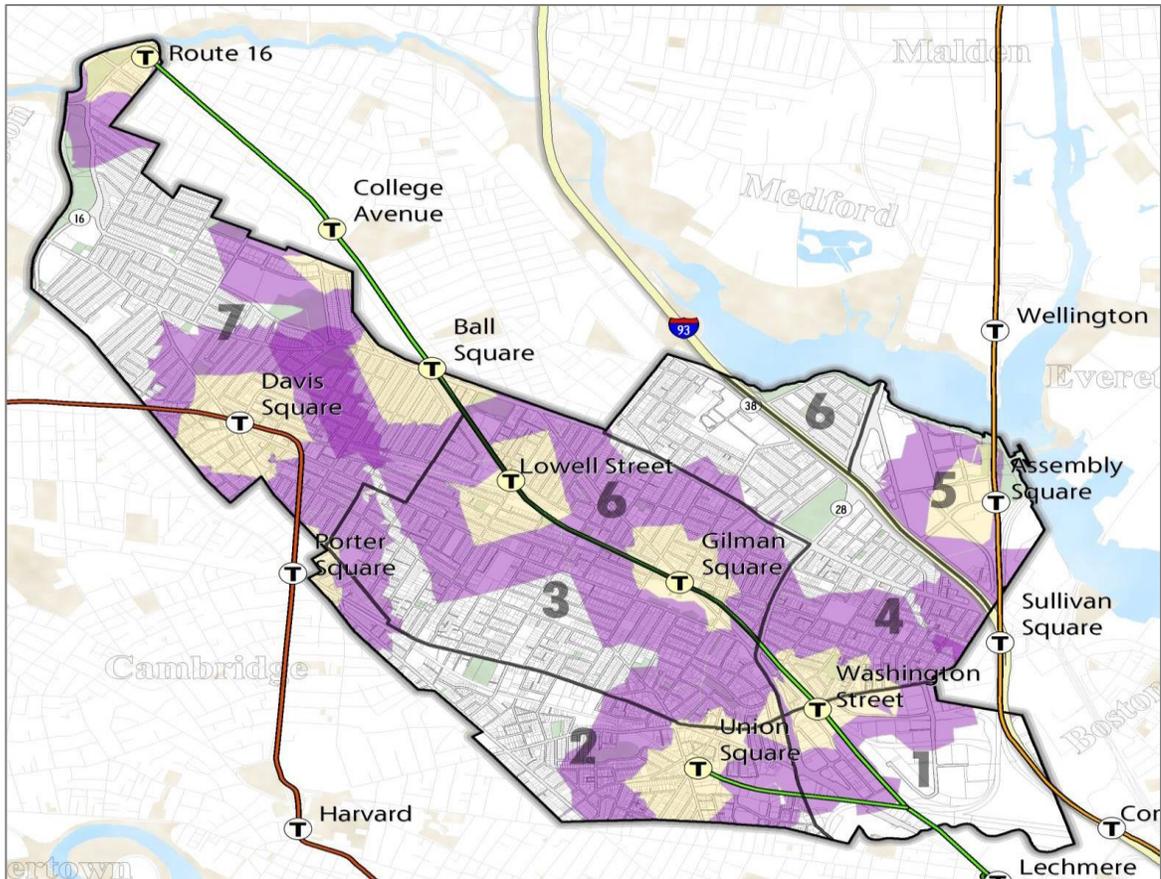
The sales projection model was based on the sales trends for all residential property types in each of the City's seven property assessing districts (Map 2) over the 2010-2016 period. It also considered the estimated impacts of the MBTA Green Line Extension and natural real estate market cycle.

a. Green Line Extension Value Impacts

The projection model assumed that the districts where the Green Line will have new stations will experience real estate transaction and value growth more than the City average during the next 10 years. This impact will be felt the most over two years following the opening of the stations with the impact declining in year three. As shown in Map 3, these impacts are most likely to be seen in District 2 and District 4 where the Union Square and Washington Street stations are scheduled to

open first, followed by District 3, District 6 and District 7 where the Gilman Square, Lowell Street, Ball Square, and Route 16 stations are scheduled to open in later years³. The other districts were assumed to experience a similar level of sales activities to that in 2016. Map 3 shows the areas immediately surrounding the MBTA stations will experience the greatest increases in sales transactions and sale value increases. Beyond the ¼-mile and ½-mile walksheds surrounding the stations, more normalized growth is projected.

Map 3
Planned New Green Line Stations and the 0.5-mile / 1-mile Walksheds



Source: MassGIS, City of Somerville, RKG Associates, Inc., 2016

b. Future Sales Value Changes Tied to Green Line Assessed Value Projections

The sales value projections are based on the projected compound annual property value appreciation rates for each type of residential property in each assessing district and accounts for future value impacts associated with the Green Line Extension.⁴ Somerville's real property assessments are established based on market value which takes into consideration annual sales data, building costs, income and expenses and vacancy rates⁵, all of which are reflected in real estate market transactions. It should be noted that the projected appreciation rates tend to be lower than the actual median sales price growth rates for the 2010-2016 period. The exceptional price growth in recent years was greatly influenced by the general economic recovery following the 2009-2010

³ Massachusetts Bay Transit Authority, http://greenlineextension.eot.state.ma.us/about_phasedSchedule.html

⁴ RKG Associates, Inc., *Green Line Extension Assessment Study, Somerville, Massachusetts*, July 2016

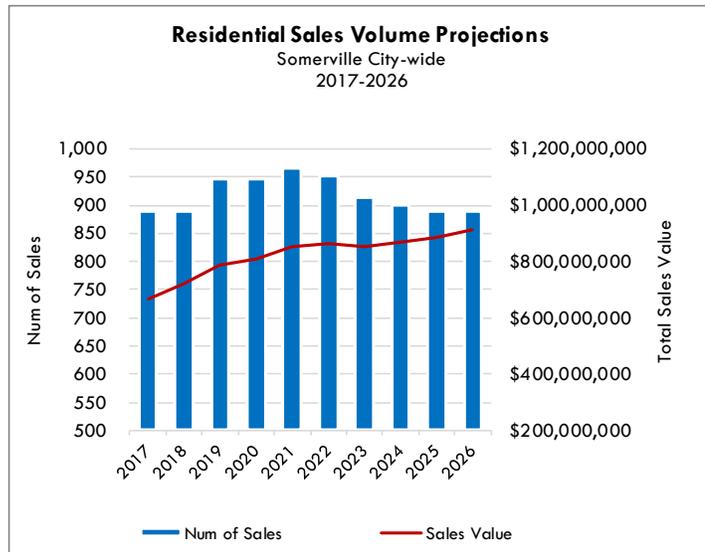
⁵ City of Somerville, <http://www.somervillema.gov/departments/finance/assessing/frequently-asked-questions-about-assessing>

recession, the region’s employment expansion, and the increased real estate investment activities in the Boston metropolitan area. This level of growth is not likely to continue unabated over the next 10 years. Therefore, the projected property appreciation rate is more conservative and assumes a slowdown in Somerville’s residential value growth, which has increased by more than 10% annually since 2010. However, should the Green Line Extension project be constructed, Somerville could realize accelerated property appreciation near several station locations.

2. Projected Residential Sales

Figure 7 and Table 15 show the projected city-wide total number of residential property sales and sales values over the 10-year projection period. While the annual number of sales fluctuates between 889 and 966, the annual sales value steadily grows from \$668 million to \$911 million. The accelerated expansion of sales during 2019-2021, relative to the rest of the period, is mainly fueled by the presumed completion of the new Green Line stations and the strong real estate response that’s likely to occur in areas such as Union Square, Washington Street and Gilman Square.

Figure 7



Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

C. RESIDENTIAL TRANSFER FEE IMPACTS

1. Projected Residential Transfer Fee Revenues

The transfer fee projection model assumes the City collects a 1% fee from the sales of all types of residential transaction and at all price levels. The fee is equivalent to 1% of the sales price. The issue of who pays the fee, the buyer or the seller or both, does not impact the calculation. However, the issue is relevant to the implementation of the policy and deserves additional consideration by the Mayor’s Transfer Fee Task Force.

Based on the projected level of sales activity and projected price value changes, the transfer fee could yield as much as \$6.7 million in 2017 dollars in Year 1. As the sale and the market value of real estate increases over the next 10 years, transfer fee revenues are projected to rise to \$9.1 million by 2026.

The transfer fee impact model considers three transfer fee exemptions: (1) one for properties sold at prices considered affordable to average income households; (2) another for properties sold by long-term Somerville property owners and (3) for properties sold by residential property owners at a financial loss. While the actual policy adopted by the City may or may not include these exemptions, RKG Associates calculated the potential impacts on annual transfer fee revenues.

**Table 15
Somerville Residential Sales 10-Year Projection
2017-2026**

	2017		2018		2019		2020		2021	
	Num of Sales	Sales Value								
Single-family	93	\$71,039,469	93	\$77,663,194	99	\$85,200,541	99	\$88,485,196	101	\$94,929,410
Two-family	195	\$165,278,122	195	\$178,848,937	206	\$193,285,814	206	\$198,578,614	211	\$211,059,959
Three-family	79	\$77,989,115	79	\$84,457,603	87	\$94,874,429	87	\$97,537,530	86	\$100,270,806
Apts (4-8 Units)	16	\$18,862,238	16	\$20,236,980	17	\$22,432,940	17	\$22,834,629	18	\$23,446,466
Apts (8+ Units)	2	\$15,468,653	2	\$16,629,691	2	\$20,405,778	2	\$20,815,066	2	\$19,558,586
Condo	504	\$319,697,308	504	\$344,130,823	536	\$373,381,934	536	\$381,361,877	547	\$400,769,938
Total	889	\$668,334,904	889	\$721,967,228	947	\$789,581,435	947	\$809,612,912	966	\$850,035,166
	2022		2023		2024		2025		2026	
Single-family	100	\$97,791,028	96	\$98,014,114	94	\$100,856,811	93	\$103,771,072	93	\$108,279,883
Two-family	209	\$215,320,844	200	\$213,815,261	198	\$217,708,824	195	\$221,649,126	195	\$228,806,365
Three-family	84	\$101,420,163	81	\$100,574,690	80	\$102,884,117	79	\$105,241,321	79	\$108,721,011
Apts (4-8 Units)	17	\$23,507,841	16	\$23,027,840	16	\$23,283,143	16	\$23,538,429	16	\$24,077,705
Apts (8+ Units)	2	\$19,137,371	2	\$18,682,767	2	\$19,150,910	2	\$19,630,784	2	\$20,122,682
Condo	539	\$405,732,255	518	\$399,954,080	511	\$405,022,489	504	\$410,070,696	504	\$420,912,774
Total	951	\$862,909,503	913	\$854,068,753	901	\$868,906,295	889	\$883,901,428	889	\$910,920,420

Source: City of Somerville Assessor's Office, Warren Group, RKG Associates, Inc.

2. Exemption #1: Area Median Income Exemption

The household area median income exemption is a proxy for an affordable housing exemption. It is designed to exempt properties sold at levels that are attainable to buyers with household incomes equivalent to 80% of area median income (AMI) as reported by U.S. Department of Housing and Urban Development for a 4-person household in the Boston-Cambridge-Quincy, MA, NH area. This approach reduces the need to document if the buyer is a first-time homebuyer and instead ties exemption eligibility to the sales price of the housing. In this case, the housing sales price is equivalent to what a 4-person household making 80% of area median income could afford.

The model sets the 2017 income threshold at \$78,150, 80% of the 2016 area median household income for a household of four in the greater Boston metropolitan area which includes the City of Somerville⁶. The threshold then increases 2.14% annually through 2026. This equals the annual household income growth rate for the 2016-2021 period as estimated by ESRI Business Analyst, a nationally recognized provider of demographic and economic data. In any given year, a property is considered affordable if the annual housing expenses for purchasing the property does not exceed 30% of the AMI threshold for that year. Annual housing expenses include mortgage payments (assuming 20% down payment), real estate taxes (Somerville's residential property tax rate with the Class One exemption)⁷, home insurance premiums, and Homeowners Association or condominium fees (if applicable).

Whether a property is considered affordable and qualifies for AMI exemption mainly depends on the sale price. In addition, anecdotal evidence shows that three-family properties and apartments in Somerville are typically purchased for investment purposes. As such, RKG has excluded them from the affordability exemption, which is reserved for traditional owner-occupants. Finally, to estimate the number of sales transactions that would qualify for this exemption, the model assumes that the residential sales would distribute across the five price ranges shown in Table 3 at roughly the same proportions as they do today. However, if left stagnant based on 2016 AMI levels, the percentage of affordable units would decline every year as real estate values increase over the next ten years. As such, RKG has adjusted future affordable housing threshold values to rise with changes in household income at 80% of AMI.

3. Exemption #2: Long-Term Owner Exemption

As stated previously, the main purpose of the long-term owner exemption is to avoid cost burdening long-time residents of Somerville who desire to sell their non-investment property. This might include residents who are selling their family home to enter a retirement or assisted living community or to downsize their living space. Since there is no reporting of such information, RKG Associates analyzed historical residential sales transactions in Somerville based on the length of time the property was held before the most recent sale. For example, if a property owner sold his or her home in 2012 and the previous sale occurred in 1980, the holding period would have equaled 32 years. This is different than an investor that may have purchased the home in 2012 and resold it one year later for solely investment purposes.

RKG Associates used the estimated holding period between the two most recent sales to determine the percentage of ownership properties (e.g., not including apartment properties) that might qualify for the Long-term Owner exemption. RKG also assumed that the future residential sales would distribute similarly to historical holding periods as shown in Table 10. Finally, RKG assumed that all arm's length sales of ownership properties with holding periods greater than 10 years would qualify for the long-term owner exemption. In practice, the policy could adopt an application or appeal process to grant this exemption on a case-by-case basis.

⁶ U.S. Department of Housing and Urban Development, 2016, <https://www.huduser.gov/portal/datasets/il/il2016/2016summary.odn>

⁷ City of Somerville, <http://www.somervillema.gov/assessing>

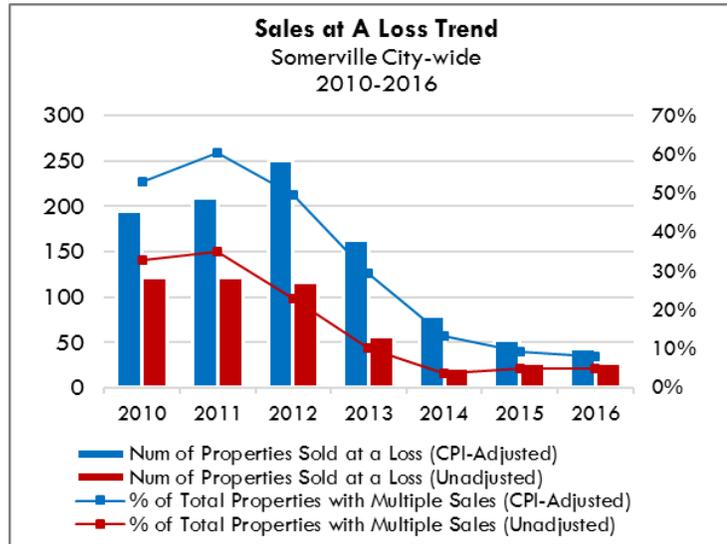
4. Exemption #3: Home Sale Loss Exemption

The home sale loss exemption provides exemption to property owners who experience a financial loss when selling their property. To assess the impacts of this exemption on transfer fee revenues, RKG compared the most recent arm's length sales prices of properties sold during the 2010-2016 period with their previous sales prices. Not all residential properties in the data set sold more than once.

The underlying assumption is that the seller of the most recent sale transaction was the buyer of the previous sale, so a financial loss occurred if the most recent sales price was lower than the previous purchase price. RKG Associates then estimated the percentage of such sales that have occurred on an annual basis since 2010. This percentage was calculated for each residential type and recalculated on a weighted basis using the median sales price for each housing type. The total value of sales for each housing type was then calculated as a percentage of total sale value and then was applied as the percentage of transfer fee revenues that would be exempted annually (Table 16). It should be noted that some properties' previous sales occurred before 2010. Such sales were not subject to the same arm's length sale standard because a sale that occurred a long time ago or during different market cycles could be below 50% or above 200% of the property' 2017 assessed value but still was an arm's length sale.

Two types of losses were considered. CPI-adjusted losses reflect the difference in real purchasing power based on U.S. Census's 1960-2016 CPI index for the Boston-Brockton-Nashua, MA-NH-ME-CT region. It was calculated by inflating or deflating the previous sale's price to the same year as the last sale before the comparison. The other is unadjusted loss, which was the actual nominal value difference between the two sales. In general, CPI

Figure 8



Source: City of Somerville, Warren Group, U.S. Census, RKG Associates, Inc., 2017

Table 16
Volume of Residential Properties Sold at A Loss by Property Type
2010-2016

	Properties Sold at A Loss			All Properties Annl. Sales Value at 2016 Price	% of Total Value Sold at Loss
	2010-2016 Total Num	Annl. Avg Num	Annl. Sales Value at 2016 Price		
CPI-Adjusted					
Single-Family	69	10	\$3,900,343	\$34,299,429	11.4%
Two-Family	99	14	\$8,600,000	\$50,153,571	17.1%
Three-Family	41	6	\$2,780,714	\$22,211,429	12.5%
Condo	782	112	\$40,962,857	\$195,841,786	20.9%
Total	991	142	\$56,243,914	\$302,506,214	18.6%
Unadjusted					
Single-Family	26	4	\$1,523,571	\$34,299,429	4.4%
Two-Family	57	8	\$5,500,000	\$50,153,571	11.0%
Three-Family	28	4	\$2,126,429	\$22,211,429	9.6%
Condo	380	54	\$27,356,857	\$195,841,786	14.0%
Total	491	70	\$36,506,857	\$302,506,214	12.1%

Source: City of Somerville, Warren Group, U.S. Census, RKG Associates, Inc., 2017

adjustment would have a greater impact on properties with longer holding periods between the two sales.

As shown in Figure 8, during 2010-2016 study period, 991 residential properties were sold at a CPI-adjusted loss, representing 29% of the total number of properties that were sold more than once. Out of this total, approximately 99 properties were held for more than 10 years between the two sales and would qualify for the Long-term Owner exemption. It was necessary to identify the long-term sales to avoid double counting sales that were eligible for both exemptions. With no CPI adjustment, 491 properties were sold at a loss, representing 14% of the total with 23 properties held for more than 10 years.

In both cases, properties sold at a loss peaked after the recession, which reflected the overall decline of real estate values during that period. As the market recovered, properties selling at a loss dropped significantly both in numbers and in percentages of total sales. For the purpose of estimating the loss exemption over the long term (2017-2026), RKG used the 2010-2016 averages to approximate the numbers of sales of each property type that may qualify for the loss exemption; sales already qualify for the long-term owner exemption are excluded. The percentage of total sales value that may qualify for the loss exemption for each property type was based on the 2016 median sale prices of such sales. RKG Associates assumed that the percentages will remain fairly stable during the projection period (Table 16).

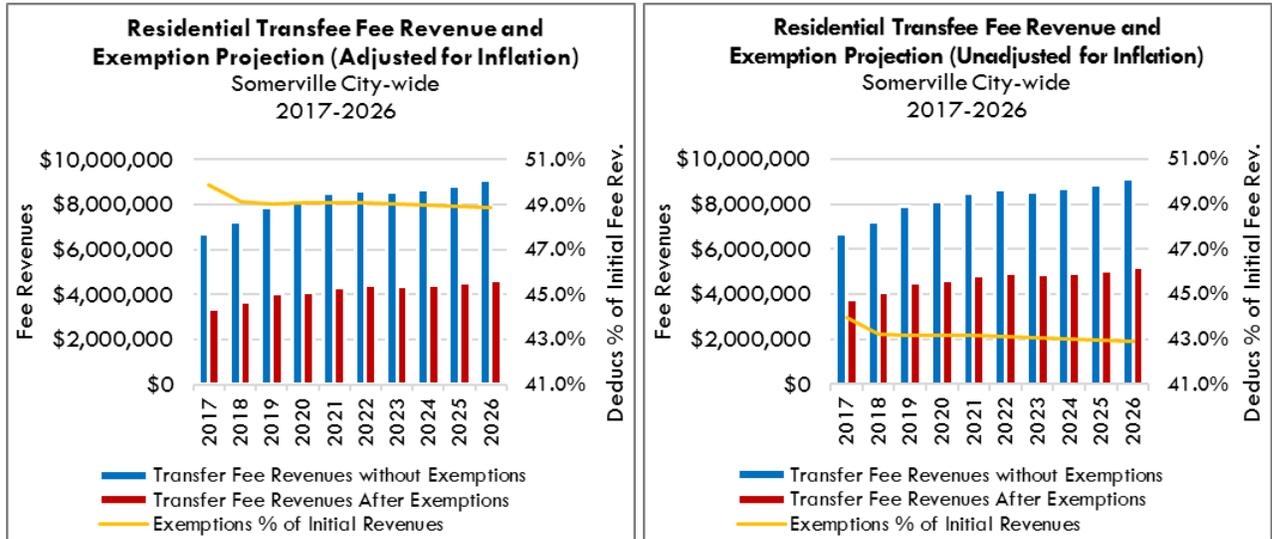
It should be noted that this estimate is rather conservative because it didn't exclude investment transactions which appeared to experience a loss but did not. One possible case would be someone who bought a block of condos as one purchase and later sold them individually, each at a price that was below the initial combined purchase price, though still higher than the per unit purchase price. Another example could be someone who purchased a three-family house, converted it to three condo units and sold them separately. Treating such transactions as a sales loss inflates the number of sales that would qualify for the loss exemption. Unfortunately, the data did not allow RKG to differentiate such sales from non-investment transactions or estimate their percentage of total sales. In practice, the policy could only apply to non-investor transactions.

5. Transfer Fee Revenue Projections (Adjusted)

Table 17 and Figure 9 show the estimated amount of each exemption and the final transfer fee revenues for the 2017-2026 period. The fluctuations of the affordability exemption come from the different growth rates of different property types in different years. It also reflects the pace of the overall sales price growth in relation to the projected household income growth rate. In general, the growth rate of annual sales prices exceeds the growth rate of annual household income levels, resulting in a decreasing percentage of total sales that qualify for the AMI exemption (4.6% to 3.1%). When the sales price growth accelerates, for example in 2018 and 2022, fewer sales fall under the affordable price thresholds, resulting in decreased affordability exemptions. However, when the price growth slows down significantly from previous years, for example in 2019 and 2020, more sales qualify for the affordability exemption.

After applying the three exemptions, which collectively equal approximately 43-50% of the initial annual fee revenue, the City may expect to yield between \$3.3 million and \$5.2 million in transfer fee revenues annually. The Long-Term Owner Exemption has a much larger impact on transfer fee revenues than the AMI exemption, accounting for between \$1.9 million to \$2.6 million over the 10-year projection period. The Loss Exemption is also sizable at \$1.1 million to \$1.5 million in the CPI-adjusted scenario and \$700,000 to \$1 million in the non-inflation adjusted scenario.

Figure 9



Source: City of Somerville, Warren Group, U.S. Census, RKG Associates, Inc., 2017

Table 17
Somerville Residential Transfer Fee Revenues 10- Year Projection
2017-2026

	Pre-exemption Fee Revenue	Exemptions			% of Pre-exempts Revenues	After-exemption Fee Revenues
		Affordability	Long-term Owner	Loss (Adjusted)		
2017	\$6,683,349	\$304,179	\$1,899,508	\$1,130,515	49.9%	\$3,349,147
2018	\$7,219,672	\$272,071	\$2,055,813	\$1,220,522	49.1%	\$3,671,267
2019	\$7,895,814	\$297,644	\$2,247,761	\$1,328,072	49.1%	\$4,022,337
2020	\$8,096,129	\$302,761	\$2,309,566	\$1,360,908	49.1%	\$4,122,894
2021	\$8,500,352	\$308,399	\$2,432,391	\$1,433,655	49.1%	\$4,325,907
2022	\$8,629,095	\$303,638	\$2,475,298	\$1,456,033	49.1%	\$4,394,126
2023	\$8,540,688	\$290,584	\$2,456,011	\$1,440,561	49.0%	\$4,353,531
2024	\$8,689,063	\$287,089	\$2,503,650	\$1,463,962	49.0%	\$4,434,361
2025	\$8,839,014	\$283,367	\$2,551,979	\$1,487,543	48.9%	\$4,516,126
2026	\$9,109,204	\$283,506	\$2,635,170	\$1,531,977	48.9%	\$4,658,551

	Pre-exemption Fee Revenue	Exemptions			% of Pre-exempts Revenues	After-exemption Fee Revenues
		Affordability	Long-term Owner	Loss (Unadjusted)		
2017	\$6,683,349	\$304,179	\$1,899,508	\$734,049	44.0%	\$3,745,613
2018	\$7,219,672	\$272,071	\$2,055,813	\$792,197	43.2%	\$4,099,592
2019	\$7,895,814	\$297,644	\$2,247,761	\$862,210	43.2%	\$4,488,199
2020	\$8,096,129	\$302,761	\$2,309,566	\$883,170	43.2%	\$4,600,632
2021	\$8,500,352	\$308,399	\$2,432,391	\$929,447	43.2%	\$4,830,114
2022	\$8,629,095	\$303,638	\$2,475,298	\$943,423	43.1%	\$4,906,736
2023	\$8,540,688	\$290,584	\$2,456,011	\$932,990	43.1%	\$4,861,102
2024	\$8,689,063	\$287,089	\$2,503,650	\$947,814	43.0%	\$4,950,509
2025	\$8,839,014	\$283,367	\$2,551,979	\$962,738	43.0%	\$5,040,931
2026	\$9,109,204	\$283,506	\$2,635,170	\$991,066	42.9%	\$5,199,462

Source: City of Somerville, Warren Group, U.S. Census, RKG Associates, Inc., 2017

At the request of the Transfer Fee Impact Analysis Advisory Committee, RKG ran two additional versions of the Long-Term Owner exemption assuming a 15- and 20-year minimum holding period. The two scenarios shown in Table 18 are both inflation adjusted and non-inflation adjusted and show how future transfer fee revenues could be impacted by lengthening the minimum residential holding period. According to RKG's analysis, the Long-term Owner exemption in 2026, would equal \$2.6 million at the 10-year holding period, \$1.2 million at 15 years and dropping to \$688,420 at 20 years or greater. In effect, by increasing the ownership holding period from 10 year to 20 years, the City would return nearly \$2 million in fee revenues to affordable housing programs in 2026. Over the course of the 10-year projection period, approximately \$17.4 million could be redirected to affordable housing-related projects if the longer holding period was applied. At the 15-year threshold, roughly \$13 million in fee revenue would be preserved for housing initiatives.

Table 18
Somerville Real Estate Transfer Fee Revenues 10- Year Projection
Sales Loss Adjusted for Inflation
2017-2026

	Pre-exemption Fee Revenue	Affordability	Exemptions				Loss (CPI Adjusted)	% of Pre-exempts Revenues						After-exemption Fee Revenues					
			Long-term Owner					10 Yr Scenario	15 Yr Scenario	20 Yr Scenario	10 Yr Scenario	15 Yr Scenario	20 Yr Scenario	10 Yr Scenario	15 Yr Scenario	20 Yr Scenario			
			10 Year	15 Year	20 Year	20 Year													
2017	\$6,683,349	\$304,179	\$1,899,508	\$854,289	\$490,282	\$1,130,515	49.9%	34.2%	28.8%	49.9%	34.2%	28.8%	\$3,349,147	\$4,394,365	\$4,758,373				
2018	\$7,219,672	\$272,071	\$2,055,813	\$925,654	\$531,312	\$1,220,522	49.1%	33.5%	28.0%	49.1%	33.5%	28.0%	\$3,671,267	\$4,801,425	\$5,195,768				
2019	\$7,895,814	\$297,644	\$2,247,761	\$1,014,198	\$582,353	\$1,328,072	49.1%	33.4%	28.0%	49.1%	33.4%	28.0%	\$4,022,337	\$5,255,901	\$5,687,746				
2020	\$8,096,129	\$302,761	\$2,309,566	\$1,043,386	\$599,202	\$1,360,908	49.1%	33.4%	28.0%	49.1%	33.4%	28.0%	\$4,122,894	\$5,389,074	\$5,833,258				
2021	\$8,500,352	\$308,399	\$2,432,391	\$1,098,927	\$630,992	\$1,433,655	49.1%	33.4%	27.9%	49.1%	33.4%	27.9%	\$4,325,907	\$5,659,371	\$6,127,306				
2022	\$8,629,095	\$303,638	\$2,475,298	\$1,119,387	\$642,789	\$1,456,033	49.1%	33.4%	27.8%	49.1%	33.4%	27.8%	\$4,394,126	\$5,750,037	\$6,226,635				
2023	\$8,540,688	\$290,584	\$2,456,011	\$1,112,121	\$638,724	\$1,440,561	49.0%	33.3%	27.7%	49.0%	33.3%	27.7%	\$4,353,531	\$5,697,421	\$6,170,818				
2024	\$8,689,063	\$287,089	\$2,503,650	\$1,135,276	\$652,145	\$1,463,962	49.0%	33.2%	27.7%	49.0%	33.2%	27.7%	\$4,434,361	\$5,802,735	\$6,285,867				
2025	\$8,839,014	\$283,367	\$2,551,979	\$1,158,821	\$665,795	\$1,487,543	48.9%	33.1%	27.6%	48.9%	33.1%	27.6%	\$4,516,126	\$5,909,283	\$6,402,309				
2026	\$9,109,204	\$283,506	\$2,635,170	\$1,198,039	\$688,420	\$1,531,977	48.9%	33.1%	27.5%	48.9%	33.1%	27.5%	\$4,658,551	\$6,095,682	\$6,605,302				

Source: RKG Associates, Inc., 2017

Somerville Real Estate Transfer Fee Revenues 10- Year Projection
Sales Loss Not Adjusted for Inflation
2017-2026

	Pre-exemption Fee Revenue	Affordability	Exemptions				Loss (CPI Unadjusted)	% of Pre-exempts Revenues						After-exemption Fee Revenues					
			Long-term Owner					10 Yr Scenario	15 Yr Scenario	20 Yr Scenario	10 Yr Scenario	15 Yr Scenario	20 Yr Scenario	10 Yr Scenario	15 Yr Scenario	20 Yr Scenario			
			10 Year	15 Year	20 Year	20 Year													
2017	\$6,683,349	\$304,179	\$1,899,508	\$854,289	\$490,282	\$734,049	44.0%	28.3%	22.9%	44.0%	28.3%	22.9%	\$3,745,613	\$4,790,832	\$5,154,839				
2018	\$7,219,672	\$272,071	\$2,055,813	\$925,654	\$531,312	\$792,197	43.2%	27.6%	22.1%	43.2%	27.6%	22.1%	\$4,099,592	\$5,229,751	\$5,624,093				
2019	\$7,895,814	\$297,644	\$2,247,761	\$1,014,198	\$582,353	\$862,210	43.2%	27.5%	22.1%	43.2%	27.5%	22.1%	\$4,488,199	\$5,721,763	\$6,153,608				
2020	\$8,096,129	\$302,761	\$2,309,566	\$1,043,386	\$599,202	\$883,170	43.2%	27.5%	22.0%	43.2%	27.5%	22.0%	\$4,600,632	\$5,866,812	\$6,310,996				
2021	\$8,500,352	\$308,399	\$2,432,391	\$1,098,927	\$630,992	\$929,447	43.2%	27.5%	22.0%	43.2%	27.5%	22.0%	\$4,830,114	\$6,163,578	\$6,631,513				
2022	\$8,629,095	\$303,638	\$2,475,298	\$1,119,387	\$642,789	\$943,423	43.1%	27.4%	21.9%	43.1%	27.4%	21.9%	\$4,906,736	\$6,262,647	\$6,739,245				
2023	\$8,540,688	\$290,584	\$2,456,011	\$1,112,121	\$638,724	\$932,990	43.1%	27.3%	21.8%	43.1%	27.3%	21.8%	\$4,861,102	\$6,204,992	\$6,678,389				
2024	\$8,689,063	\$287,089	\$2,503,650	\$1,135,276	\$652,145	\$947,814	43.0%	27.3%	21.7%	43.0%	27.3%	21.7%	\$4,950,509	\$6,318,884	\$6,802,015				
2025	\$8,839,014	\$283,367	\$2,551,979	\$1,158,821	\$665,795	\$962,738	43.0%	27.2%	21.6%	43.0%	27.2%	21.6%	\$5,040,931	\$6,434,088	\$6,927,114				
2026	\$9,109,204	\$283,506	\$2,635,170	\$1,198,039	\$688,420	\$991,066	42.9%	27.1%	21.5%	42.9%	27.1%	21.5%	\$5,199,462	\$6,636,593	\$7,146,212				

Source: RKG Associates, Inc., 2017

D. 10-YEAR NON-RESIDENTIAL SALES PROJECTION AND TRANSFER FEE IMPACTS

1. Assumptions

To evaluate the potential impacts of the proposed real estate transfer fee policy, RKG estimated the annual non-residential property sales volume in Somerville for the next ten years (2017-2026) and the amount of real estate transfer fees that the City could collect.

- The annual sales projection was based on the sales trends for various types of non-residential properties over the 2010-2016 period. Given the variation of sales between the years, the baseline used the 10-year average annual sales square footages and the 2014-2016 3-year median per square foot price to reflect the long-term market transaction scale at the current market value.
- The assumed sales price trend for the projection period is based on the projected compound annual non-residential property value appreciation rate for 2015-2025 period under the influence of the Green Line Extension⁸.
- Admittedly, the Green Line Extension will catalyze a significant amount of non-residential development. Data from the City of Somerville indicates that approximately 1.7 to 2.5 million square feet of new non-residential space has been planned, proposed, or under construction in areas adjacent to the proposed train stations, especially Union Square and Washington Street Stations. However, non-residential development of this scale could take years to be delivered to the market. In addition, to be reflected in the sales projections, most of this new development would have to sell within a shortened investment holding period, which typically ranges from five to ten years after construction is completed. This would put most of the reversionary sales of this new non-residential development beyond RKG's 10-year projection period (2017-2026).
- The transfer fee is equivalent to 1% of the sales value, splitting between the seller and the buyer.

2. Sales Volume and Transfer Fee Revenues Projection

Table 19 shows that over the next 10 years, the projected annual non-residential property sales in Somerville grows steadily from \$51 million to \$74 million, reflecting an amount approximately 7% to 8% of the combined total non-residential and residential property sales value. Transfer fee revenue from non-residential property sales is projected to increase gradually from \$510,628 to \$743,341 over the 10-year period. This equates to roughly 11% to 14% of combined non-residential and residential transfer fee revenues after adjusting for the three residential exemptions.

Table 19
Somerville Non-residential Property Sales and Transfer Fee Revenues Projection 2017-2026

	Sales Square Footage	Total Sales Value	Fee Revenue
2017	225,386	\$51,062,816	\$510,628
2018	225,386	\$55,556,615	\$555,566
2019	225,386	\$57,529,171	\$575,292
2020	225,386	\$59,427,940	\$594,279
2021	225,386	\$61,686,519	\$616,865
2022	225,386	\$64,030,935	\$640,309
2023	225,386	\$66,464,451	\$664,645
2024	225,386	\$68,990,455	\$689,905
2025	225,386	\$71,612,459	\$716,125
2026	225,386	\$74,334,114	\$743,341

Source: City of Somerville, Warren Group, RKG Associates, Inc., 2017

⁸ Green Line Extension Assessment Study, Somerville, Massachusetts, RKG Associates, Inc., July 2016

E. POLICY IMPLICATIONS

The transfer fee impact analysis presented above carries with it a number major policy implications for the City Somerville. Some of these policy implications are related to the transfer fee ordinance and how it is implemented and others relate to how the fee revenue will be used to achieve the City's affordable housing goals. The following section describes the range of issues that RKG recommends for consideration from the Mayor's Transfer Fee Task Force.

1. Buyer v. Seller – Transfer Fee Responsibility

While the real estate professionals who were interviewed were unanimous in believing that a 1% transfer fee on the total transaction value would not substantially change the behavior of buyers and sellers in Somerville, RKG believes the fee would be more consequential to buyers than sellers. The seller's interests are tied to the sale of a particular real estate asset. Its location is fixed - if the seller wants to sell the property, and can't pass it along to the buyer, he or she must absorb the fee and take less at closing. The buyer has greater flexibility and can chose to buy real estate in a more affordable community if necessary. At the same time, local real estate professionals believe that the cost of the fee will be incorporated into the listing price of properties and passed along to the buyer. These are reasonable assumptions in a hot sellers' market, but are far less certain in a buyers' market. Sharing the transfer fee between buyer and seller is an option used by other jurisdictions. Another alternative would be to allow the fee to be negotiated at the time of sale. In a soft real estate market, the seller may have to absorb the fee to attract a buyer.

2. Long-Term Owner Exemption

The long-term owner exemption could potentially have a significant impact on annual transfer fee revenues if applied to all residential sales held for 10 years or more. According to RKG estimates, properties sold by long-term property owners (held 10 or more years) could reduce fee revenues by as much as 29%. A longer holding period should be considered to reduce the revenue impacts associated with this exemption. At a 20-year holding period, the impacts of this exemption would reduce transfer fee revenues by only 7.6% in 2016.

3. Leveraging Transfer Fee Revenues

The proposed transfer fee program could potentially raise between \$3.4 million and \$5.2 million annually, depending on program exemptions and real estate market conditions. However, if the revenues were used to service a municipal bond issuance, those annual revenues could be used to leverage a much larger sum to advance affordable housing. A bond issuance of \$40 million at 4% interest over a 20-year term could be supported by annual transfer fee revenues of \$4.5 million at a 1.5 debt coverage ratio. The debt service coverage ratio (DSCR) is the relationship between the annual revenue stream (i.e., transfer fee) and the payments required to service the debt. Typically, a lender, or in this case municipal bond investors, require a debt service coverage ratio higher than 1.0x to provide a cushion in case something goes wrong or revenues decline below what is required to service the debt. For example, if a 1.20x debt service coverage ratio was required, then annual transfer fee revenues would have to equal 1.2 times the amount of annual debt service payments. This would create enough of a cushion so that annual revenues could decline by 16.7% and it would still be able to fully cover all debt service obligations. Given the uncertainty of future real estate cycles, a higher debt service coverage ratio of 1.5 has been used for this example.

If land and building acquisition is going to be part of the City's affordable housing initiative, the costs will be significant and consume a large percentage of projected transfer fee revenues. As such, borrowing at municipal bond rates and retiring the debt with transfer fee revenue is a way to right-size the funding to meet the increasing demand.

4. Transfer Fee Impacts on Investment Properties

The potential impact of the transfer fee program on multi-family investment properties is one of fair share. The City of Somerville has adopted an inclusionary zoning requirement that ensures 20% affordable units as part of all new multi-family residential developments. Once a developer has met that affordability requirement at the front-end of the project, is it reasonable to require the payment of a transfer fee to support affordable housing at the back-end of the deal? One could also make a reasonable argument that the developer has already met their responsibilities to provide affordable housing. To impose a transfer fee at the time of reversion when the developer sells the stabilized project to an investor may exceed a reasonable fair share. At this point, the project is at full value and the developer is completing the sale to collect their final return on investment. Passing a substantial transfer fee to the buyer may make the sale less desirable in comparison to other investment properties and absorbing the fee could jeopardize the developer's ROI expectations for the project. Multi-family investment projects that were built prior to the City's enactment of inclusionary zoning requirements for affordable housing should be required to pay the transfer fee.