

MEMORANDUM

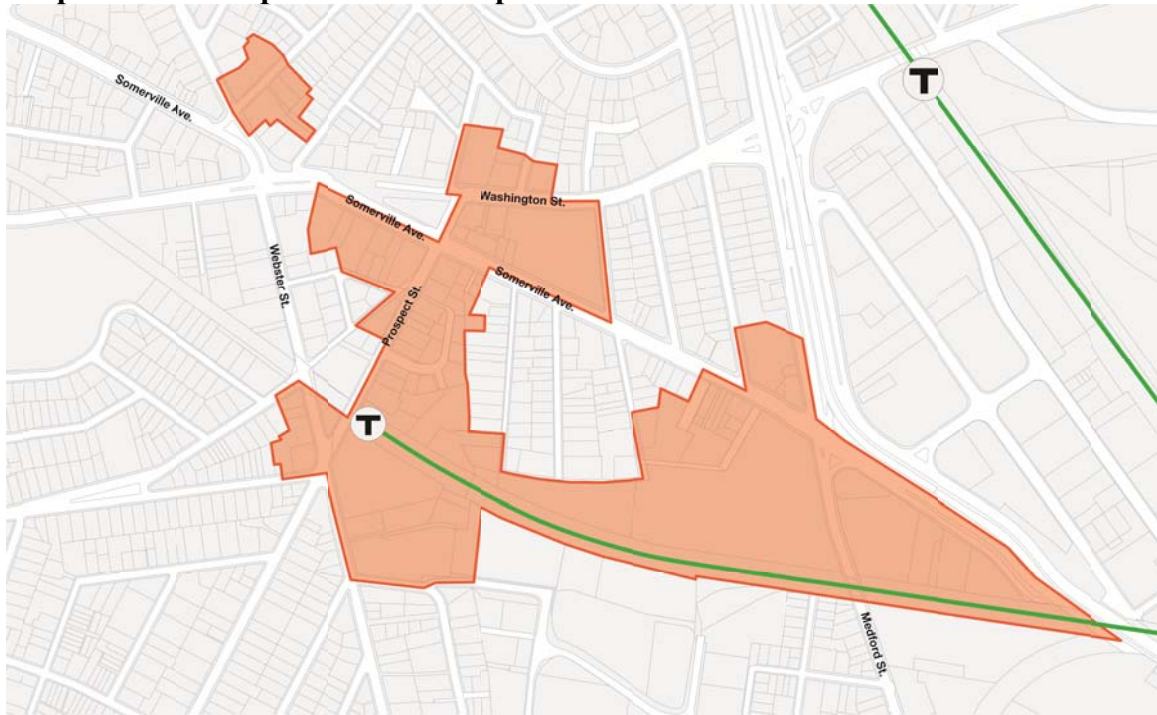
TO: Marc Levy, City Assessor
FROM: Jahangir Akbar
Craig Seymour
RE: USQ DIF Memo
DATE: October 6, 2017

A. INTRODUCTION

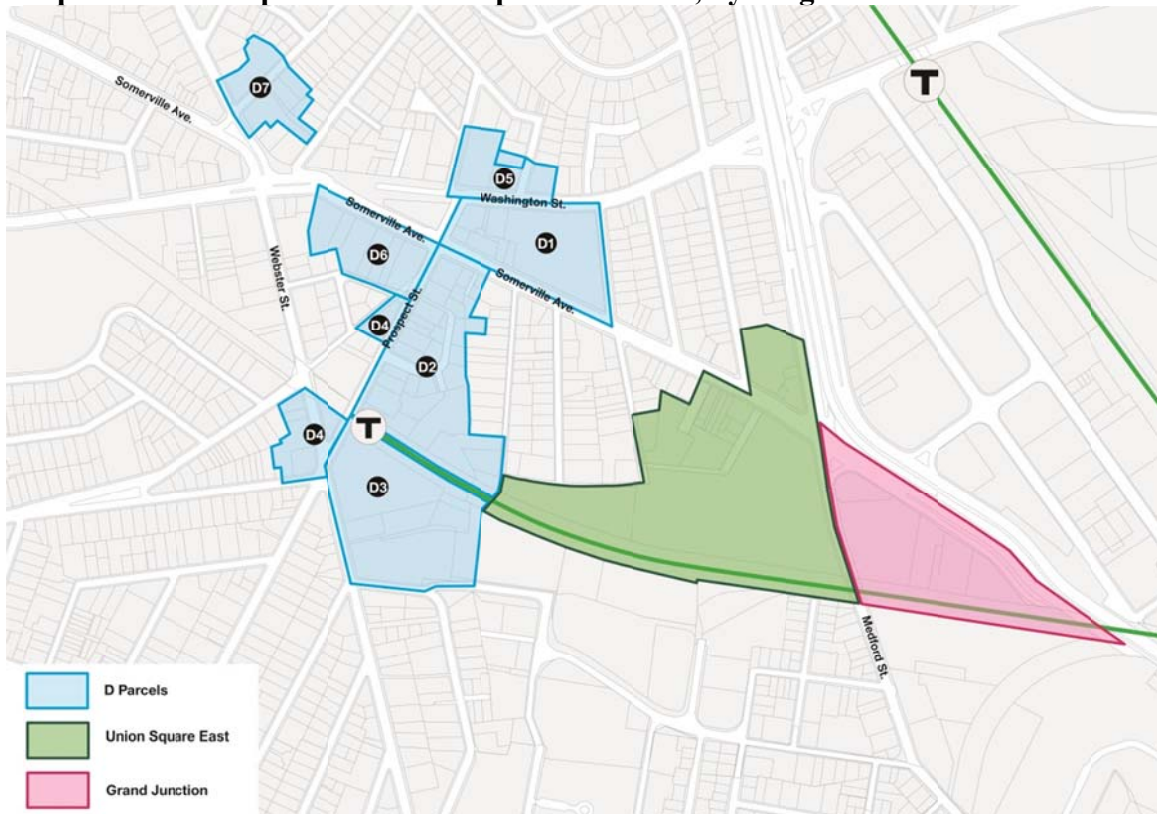
The Administration is proposing to establish a District Improvement Financing (DIF) development district and development program for the Union Square neighborhood in 2017. DIF is a financial tool that changes how municipalities finance infrastructure investments that incentivize private development, and, in Somerville's case, simultaneously improve water and sewer service and reduce flood risk for 60% of the city. By allowing municipalities to borrow short term for five years instead of two, DIF better aligns debt service payments with projected future tax revenue from the new development catalyzed by the infrastructure investments.

The Administration is proposing a DIF development district that includes the D Parcels, the Union Square East neighborhood, and a portion of the Grand Junction neighborhood (see maps below). RKG Associates Inc. (RKG) developed a financial model to calculate the captured increment – additional tax dollars projected to result from new development – for all parcels included in the proposed district. The cumulative captured increment for the proposed district was then compared to the debt service projections provided by First Southwest Bank for the proposed infrastructure to determine if a shortfall or surplus of captured increment exists.

Proposed Union Square DIF Development District



Proposed Union Square DIF Development District, by Neighborhood



B. MODEL METHODOLOGY

Captured increment is calculated by projecting annual future property assessment values for each parcel, subtracting the baseline property value (the 2017 assessed value from the Assessor's database), and estimating taxes on the differential. Inherent complexity exists within any model attempting to predict future assessment values. Several key assumptions are needed to generate the estimated future assessment values, particularly for projects that are not fully planned or that result from the general urban design efforts of the City's Office of Strategic Planning and Community Development (OSPCD). The model's methodology is relatively straight forward: take the proposed commercial square feet and number of residential units, along with their construction timeline, apply an assessment factor to determine potential value, and then integrate the new development (and associated captured increment based on applicable property tax rates) into a financial statement.

Within the basic methodological framework, a few key elements are used to ensure the appropriate development values and revenues are reflected. These include an inflation adjustment, estimated development assessment values (see Appendix 3), and the removal of underlying parcel values so as not to double count the existing assessment within the future new development. Conservative assumptions were used in developing the model so as to not overstate potential captured increment. The model also allows the user to run various scenarios with different economic assumptions to test, for example, the impact of a recession. The results of this scenario are included below.

C. INFRASTRUCTURE BONDS

First Southwest Bank provided a debt service schedule for multiple tranches of bonds that will be issued between 2018 and 2027 (see below). As part of the infrastructure financing, the Administration is proposing to issue five-year Bond Anticipation Notes (BANs), which are shorter-term, interest-only notes, prior to their conversion to 25-year bonds. Since the bonds are going to be issued in tranches over time, later issued bonds will be retired beyond the 30-year DIF period. The debt service on the bonds includes both principal and interest payments and totals \$240,000,000 over the life of the bonds. The proceeds from the BANs/bonds will be used for completing the critical infrastructure that is required to catalyze development across the proposed DIF district, while simultaneously improving water and sewer service and reducing flood risk for 60% of Somerville.

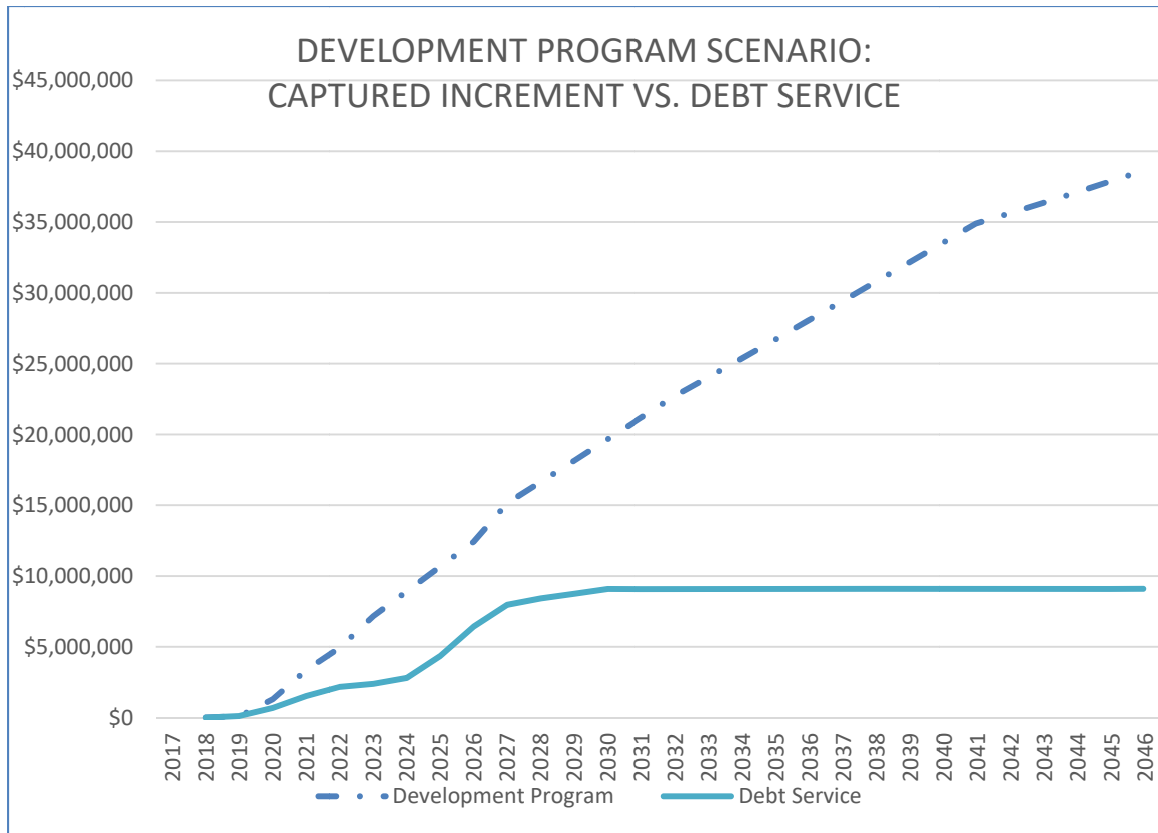
Debt Service Schedule for Proposed Infrastructure								
	Debt Service on Proposed June 2023 DIF Bonds	Debt Service on Proposed May 2024 DIF Bonds	Debt Service on Proposed May 2025 DIF Bonds	Debt Service on Proposed May 2026 DIF Bonds	Debt Service on Proposed May 2027 DIF Bonds	Debt Service on Proposed May 2028 DIF Bonds	Debt Service on Proposed May 2029 DIF Bonds	Total Projected Debt Service
2019	\$114,700	\$0	\$0	\$0	\$0	\$0	\$0	\$114,700
2020	\$114,700	\$562,800	\$0	\$0	\$0	\$0	\$0	\$677,500
2021	\$139,700	\$562,800	\$827,400	\$0	\$0	\$0	\$0	\$1,529,900
2022	\$139,200	\$592,800	\$827,400	\$612,100	\$0	\$0	\$0	\$2,171,500
2023	\$138,700	\$592,200	\$862,400	\$612,100	\$189,100	\$0	\$0	\$2,394,500
2024	\$398,000	\$591,600	\$861,700	\$637,100	\$189,100	\$132,000	\$0	\$2,809,500
2025	\$402,250	\$1,992,500	\$861,000	\$636,600	\$199,100	\$132,000	\$132,000	\$4,355,450
2026	\$406,000	\$1,988,000	\$2,933,250	\$636,100	\$198,900	\$137,000	\$132,000	\$6,431,250
2027	\$404,250	\$1,992,250	\$2,924,750	\$2,171,500	\$198,700	\$136,900	\$137,000	\$7,965,350
2028	\$402,250	\$1,989,750	\$2,924,500	\$2,164,250	\$671,250	\$136,800	\$136,900	\$8,425,700
2029	\$400,000	\$1,985,750	\$2,927,000	\$2,160,750	\$666,250	\$469,250	\$136,800	\$8,745,800
2030	\$402,500	\$1,990,250	\$2,927,000	\$2,170,750	\$666,000	\$467,250	\$469,250	\$9,093,000
2031	\$394,500	\$1,982,750	\$2,934,500	\$2,168,500	\$670,250	\$465,000	\$467,250	\$9,082,750
2032	\$401,500	\$1,993,750	\$2,924,000	\$2,159,500	\$668,750	\$467,500	\$465,000	\$9,080,000
2033	\$402,750	\$1,987,250	\$2,926,250	\$2,169,000	\$666,750	\$464,500	\$467,500	\$9,084,000
2034	\$403,500	\$1,999,000	\$2,925,500	\$2,161,000	\$669,250	\$466,250	\$464,500	\$9,089,000
2035	\$398,750	\$1,993,000	\$2,931,750	\$2,161,250	\$666,000	\$467,500	\$466,250	\$9,084,500
2036	\$398,750	\$1,990,000	\$2,934,500	\$2,169,250	\$667,250	\$468,250	\$467,500	\$9,095,500
2037	\$398,250	\$1,989,750	\$2,933,750	\$2,169,500	\$672,750	\$468,500	\$468,250	\$9,100,750
2038	\$402,250	\$1,992,000	\$2,934,500	\$2,167,250	\$672,250	\$468,250	\$468,500	\$9,105,000
2039	\$400,500	\$1,986,500	\$2,921,500	\$2,167,500	\$666,000	\$467,500	\$468,250	\$9,077,750
2040	\$403,250	\$1,993,500	\$2,925,250	\$2,165,000	\$669,250	\$466,250	\$467,500	\$9,090,000
2041	\$400,250	\$1,992,250	\$2,924,750	\$2,169,750	\$666,500	\$469,500	\$466,250	\$9,089,250
2042	\$401,750	\$1,988,000	\$2,925,000	\$2,161,250	\$673,000	\$467,000	\$469,500	\$9,085,500
2043	\$402,500	\$1,995,750	\$2,930,750	\$2,165,000	\$668,250	\$469,000	\$467,000	\$9,098,250
2044	\$397,500	\$1,994,750	\$2,926,500	\$2,165,250	\$667,750	\$465,250	\$469,000	\$9,086,000
2045	\$407,000	\$1,985,250	\$2,932,500	\$2,167,000	\$671,250	\$466,000	\$465,250	\$9,094,250
2046	\$405,250	\$1,987,500	\$2,933,000	\$2,170,000	\$668,500	\$466,000	\$466,000	\$9,096,250
2047	\$407,750	\$1,990,750	\$2,923,000	\$2,169,000	\$669,750	\$465,250	\$466,000	\$9,091,500
2048	\$404,250	\$1,984,750	\$2,922,750	\$2,164,000	\$669,750	\$468,750	\$465,250	\$9,079,500
2049	\$0	\$1,989,750	\$2,921,500	\$2,165,000	\$668,500	\$466,250	\$468,750	\$8,679,750
2050	\$0	\$0	\$2,919,000	\$2,166,500	\$666,000	\$468,000	\$466,250	\$6,685,750
2051	\$0	\$0	\$0	\$2,168,250	\$672,250	\$468,750	\$468,000	\$3,777,250
2052	\$0	\$0	\$0	\$0	\$666,750	\$468,500	\$468,750	\$1,604,000
2053	\$0	\$0	\$0	\$0	\$0	\$467,250	\$468,500	\$935,750
2054	\$0	\$0	\$0	\$0	\$0	\$0	\$467,250	\$467,250
Total	\$10,692,500	\$52,656,950	\$77,426,650	\$57,290,000	\$17,695,150	\$12,356,200	\$12,356,200	\$240,473,650

D. MODEL RESULTS

The Administration is proposing a DIF district that includes the D Parcels, the Union Square East neighborhood, and a portion of the Grand Junction neighborhood. RKG conducted a model run for this geography based on the proposed development program (summarized below).

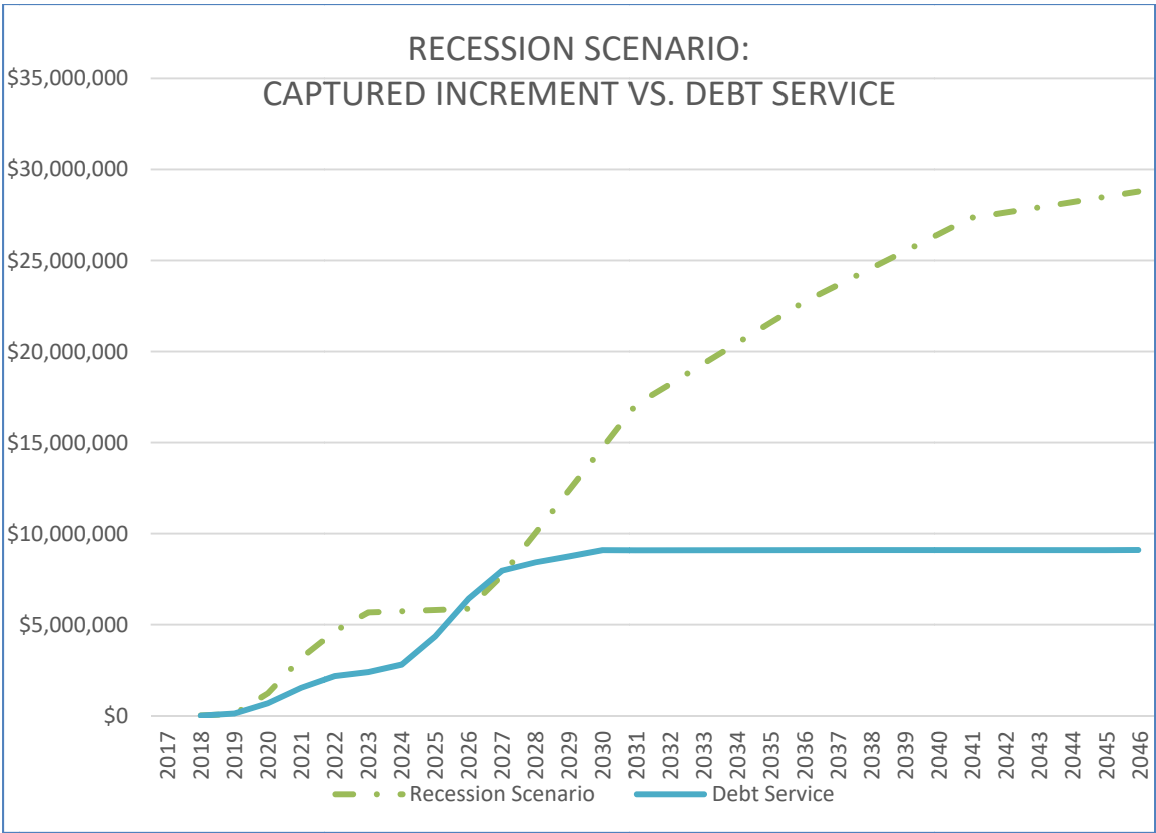
Proposed DIF Development Program					
	Commercial/ Office Building SF	Retail Building SF	Hotel Room Key	Market Rate Residential Units	Inclusionary Zoning Affordable Residential Units
D Parcels	1,097,400	164,450	175	631	158
Union Square East	987,726	172,273	0	453	113
Grand Junction	201,039	28,733	0	124	31
Total	2,286,165	365,456	175	1,208	302

Assuming a 2 percent annual inflation rate, this development program results in cumulative captured increment of approximately \$613,000,000 over the 30-year DIF period, which is 2.6 times greater than total debt service payments for the proposed infrastructure. As the graph below shows, debt service is less than captured increment in every year except FY19 (by less than \$3,000). See Appendix 1 for the details of this analysis.



Recession scenario

RKG conducted a model run that assumes a three-year recession between FY24 and FY26. In this scenario, no new development occurs during the recession, and the inflation rate for the entire 30-year period is 1 percent (rather than 2 percent in the previous scenario). As the graph below and Appendix 2 show, debt service is greater than captured increment in only three years: FY19 (by approximately \$25,000), FY26 (by approximately \$561,000), and FY27 (by approximately \$257,000). However, total captured increment over the 30-year period in this scenario is \$465,000,000, which is 1.9 times greater than total debt service.



Appendix 1

Projected Captured Increment in Tax Dollars Compared to Debt Service						
	D Parcels	Union Square East	Grand Junction	Natural Appreciation Increment*	Total Captured Increment	Debt Service
2017	\$0					\$0
2018	\$0	\$0	\$0	\$19,590	\$19,590	\$0
2019	\$72,377	\$0	\$0	\$39,572	\$111,949	\$114,700
2020	\$1,242,659	\$0	\$0	\$59,954	\$1,302,613	\$677,500
2021	\$3,283,844	\$0	\$0	\$80,743	\$3,364,587	\$1,529,900
2022	\$4,835,689	\$0	\$0	\$101,948	\$4,937,637	\$2,171,500
2023	\$6,903,667	\$0	\$145,821	\$123,577	\$7,173,065	\$2,394,500
2024	\$8,377,221	\$0	\$397,936	\$145,639	\$8,920,796	\$2,809,500
2025	\$9,852,992	\$0	\$650,009	\$168,142	\$10,671,143	\$4,355,450
2026	\$11,331,024	\$0	\$902,037	\$191,095	\$12,424,156	\$6,431,250
2027	\$12,811,361	\$967,455	\$1,154,020	\$214,507	\$15,147,343	\$7,965,350
2028	\$13,067,589	\$1,934,911	\$1,405,956	\$238,387	\$16,646,843	\$8,425,700
2029	\$13,328,940	\$2,902,366	\$1,657,846	\$262,745	\$18,151,897	\$8,745,800
2030	\$13,595,519	\$3,869,822	\$1,909,688	\$287,590	\$19,662,619	\$9,093,000
2031	\$13,867,430	\$4,837,277	\$2,161,481	\$312,932	\$21,179,120	\$9,082,750
2032	\$14,144,778	\$5,804,733	\$2,413,225	\$338,781	\$22,701,517	\$9,080,000
2033	\$14,427,674	\$6,772,188	\$2,461,489	\$365,146	\$24,026,497	\$9,084,000
2034	\$14,716,227	\$7,739,644	\$2,510,719	\$392,040	\$25,358,630	\$9,089,000
2035	\$15,010,552	\$8,707,099	\$2,560,933	\$419,471	\$26,698,055	\$9,084,500
2036	\$15,310,763	\$9,674,554	\$2,612,152	\$447,450	\$28,044,919	\$9,095,500
2037	\$15,616,978	\$10,642,010	\$2,664,395	\$475,989	\$29,399,372	\$9,100,750
2038	\$15,929,318	\$11,609,465	\$2,717,683	\$505,099	\$30,761,565	\$9,105,000
2039	\$16,247,904	\$12,576,921	\$2,772,037	\$534,791	\$32,131,653	\$9,077,750
2040	\$16,572,862	\$13,544,376	\$2,827,477	\$565,077	\$33,509,792	\$9,090,000
2041	\$16,904,319	\$14,511,832	\$2,884,027	\$595,969	\$34,896,147	\$9,089,250
2042	\$17,242,406	\$14,802,068	\$2,941,707	\$627,479	\$35,613,660	\$9,085,500
2043	\$17,587,254	\$15,098,110	\$3,000,541	\$659,618	\$36,345,523	\$9,098,250
2044	\$17,938,999	\$15,400,072	\$3,060,552	\$692,401	\$37,092,024	\$9,086,000
2045	\$18,297,779	\$15,708,073	\$3,121,763	\$725,839	\$37,853,454	\$9,094,250
2046	\$18,663,734	\$16,022,235	\$3,184,199	\$759,946	\$38,630,114	\$9,096,250
Total	\$357,181,857	\$193,125,210	\$52,117,694	\$10,351,515	\$612,776,280	\$240,473,650^

*Natural Appreciation Increment presents the aggregated tax increment resulting from natural assessment appreciation across all development blocks for parcels undeveloped in each year.

^Includes all debt service payments, which end in FY54.

Appendix 2

Recession Scenario: Projected Captured Increment in Tax Dollars Compared to Debt Service						
	D Parcels	Union Square East	Grand Junction	Natural Appreciation Increment*	Total Captured Increment	Debt Service
2017	\$0	\$0	\$0	\$0		\$0
2018	\$0	\$0	\$0	\$9,795	\$9,795	\$0
2019	\$69,754	\$0	\$0	\$19,688	\$89,442	\$114,700
2020	\$1,191,888	\$0	\$0	\$29,680	\$1,221,568	\$677,500
2021	\$3,128,280	\$0	\$0	\$39,772	\$3,168,051	\$1,529,900
2022	\$4,583,464	\$0	\$0	\$49,965	\$4,633,429	\$2,171,500
2023	\$5,608,382	\$0	\$0	\$60,259	\$5,668,642	\$2,394,500
2024	\$5,664,466	\$0	\$0	\$70,657	\$5,735,123	\$2,809,500
2025	\$5,721,111	\$0	\$0	\$81,159	\$5,802,270	\$4,355,450
2026	\$5,778,322	\$0	\$0	\$91,765	\$5,870,087	\$6,431,250
2027	\$6,719,967	\$763,730	\$121,868	\$102,478	\$7,708,042	\$7,965,350
2028	\$8,059,334	\$1,527,460	\$349,061	\$113,298	\$10,049,153	\$8,425,700
2029	\$9,399,245	\$2,291,190	\$576,243	\$124,226	\$12,390,904	\$8,745,800
2030	\$10,739,705	\$3,054,920	\$803,415	\$135,263	\$14,733,303	\$9,093,000
2031	\$12,080,719	\$3,818,650	\$1,030,576	\$146,411	\$17,076,356	\$9,082,750
2032	\$12,201,527	\$4,582,380	\$1,257,726	\$157,670	\$18,199,302	\$9,080,000
2033	\$12,323,542	\$5,346,110	\$1,484,865	\$169,042	\$19,323,558	\$9,084,000
2034	\$12,446,777	\$6,109,840	\$1,711,992	\$180,528	\$20,449,137	\$9,089,000
2035	\$12,571,245	\$6,873,569	\$1,939,109	\$192,128	\$21,576,051	\$9,084,500
2036	\$12,696,957	\$7,637,299	\$2,166,214	\$203,844	\$22,704,315	\$9,095,500
2037	\$12,823,927	\$8,401,029	\$2,187,876	\$215,678	\$23,628,510	\$9,100,750
2038	\$12,952,166	\$9,164,759	\$2,209,754	\$227,630	\$24,554,310	\$9,105,000
2039	\$13,081,688	\$9,928,489	\$2,231,852	\$239,701	\$25,481,730	\$9,077,750
2040	\$13,212,505	\$10,692,219	\$2,254,171	\$251,893	\$26,410,788	\$9,090,000
2041	\$13,344,630	\$11,455,949	\$2,276,712	\$264,207	\$27,341,498	\$9,089,250
2042	\$13,478,076	\$11,570,509	\$2,299,479	\$276,644	\$27,624,709	\$9,085,500
2043	\$13,612,857	\$11,686,214	\$2,322,474	\$289,206	\$27,910,751	\$9,098,250
2044	\$13,748,986	\$11,803,076	\$2,345,699	\$301,893	\$28,199,653	\$9,086,000
2045	\$13,886,475	\$11,921,107	\$2,369,156	\$314,707	\$28,491,445	\$9,094,250
2046	\$14,025,340	\$12,040,318	\$2,392,847	\$327,649	\$28,786,154	\$9,096,250
Total	\$275,151,335	\$150,668,816	\$34,331,087	\$4,686,838	\$464,838,077	\$240,473,650^

*Natural Appreciation Increment presents the aggregated tax increment resulting from natural assessment appreciation across all development blocks for parcels undeveloped in each year.

^Includes all debt service payments, which end in FY54.

Appendix 3

Assessment Factors	2017 Assessment Factors
Residential Condos- Market Rate	\$750,000
Affordable at 80% of AMI	\$174,983
Affordable at 110% of AMI	\$268,043
Affordable at 140% of AMI	\$361,103
Residential Apts - Market Rate	\$225,000
Affordable at 50% of AMI	\$102,938
Affordable at 80% of AMI	\$164,700
Affordable at 110% of AMI	\$226,463
Commercial Building /SF	\$375
Office Building /SF	\$375
Retail Building /SF	\$350
Hotel Room Key	\$290,000