

## Appendix D: Economic Analysis of Rail Alternatives

## ***DRAFT MEMORANDUM***

To: Joe Speaks, CH2M

From: Darin Smith and Jenny Lin

Subject: Preliminary Land Value Analysis for RAB Project;  
EPS #141018

Date: May 31, 2016

*The Economics of Land Use*



### **Introduction and Purpose**

As a sub-consultant to CH2M, EPS has been retained to conduct economic and fiscal analyses related to the Railyard Alternatives and I-280 Boulevard Feasibility Study (RAB). The San Francisco Planning Department is leading the RAB project and is seeking input on alternatives currently under review for major mobility improvements in the fast-growing Mission Bay/South of Market area of the City, including Caltrain and High Speed Rail and converting the northern end of I-280 into a surface boulevard. This draft memorandum builds upon the methodology and findings of EPS's similar study of the site in 2012 and provides an updated initial analysis of the land value per developable building square foot of residential and non-residential uses for a "generic" parcel in the vicinity of the 4th and King site. These "generic" findings can be applied to different sites that may be identified through the ongoing planning process, including the 4<sup>th</sup> and King site itself as well as others that may be developable as a result of related activities including changes to Interstate 280 and alternative routes for train service and stations.

In this updated memorandum, EPS used the results of this research to estimate the comparative land value of three alternative sites and configurations. These configurations include two Railyards site scenarios (partial electrification and full electrification) and one Boulevard site scenario. It is noted that these estimates do not authoritatively determine the value of the sites, for which further planning and due diligence work would be required.

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## Methodology

Land transactions provide an important indicator of a property's value as a development site. Land sale prices reflect the full spectrum of a site's unique attributes: size, locational quality, state of entitlements, potential development density, allowable uses, and costs for construct on the site, among others. Reviewing actual land sales provides important information on how the marketplace is valuing developable land. As a land valuation tool, the "comparables" approach is limited to the number of transactions that have actually taken place and the extent to which the transactions are similar to the conditions of the subject property.

In selecting recent land sales for review, EPS has examined those as similar to the 4<sup>th</sup> and King site as possible. Specifically, sales conforming to the following criteria are included in **Figure 1** and **Table 1**:

- **Near 4th and King.** The land sales included in the table include sales all within close proximity of the site, either in South of Market, Mission Bay, Potrero Hill, or Central Waterfront areas.
- **Recently sold.** Land sales are relatively recent, ranging in sale dates from 2005 to current transactions. The results are categorized by year to identify temporal trends in pricing.
- **Diversity of programs.** Sales examined include residential, commercial, and mixed-use programs.
- **Medium-to high-density.** What can be developed—from a regulatory, a physical, and a market perspective—is ultimately what drives the value of land. All of the land sales in the table reflect planned developments similar to the likely programs for the 4th and King site and associated opportunity sites, meaning multifamily housing, office, lodging, or other dense urban uses.

In total, EPS has identified 51 transactions meeting these criteria over the last 11 years.

## Key Findings: Land Transactions

The figures presented are general and intended to be used to compare site and alignment alternatives, not to represent specifics of any given property at any given time.

As shown in **Table 1**, the review of nearby, developable land sales indicate the following:

- In general, land values have been trending upwards in price per acre for the last 11 years. **Table 1** shows that in 2005-2008, 18 transactions averaged approximately \$26.2 million per acre, but transactions slowed (only 12 transactions) during the recession of 2009-2012 and averaged only \$13.2 million per acre, a 50 percent decrease from the previous period. Since 2013, however, transaction activity has quickened (21 transactions in three years) and land prices have risen well beyond their pre-recession rates to approximately \$33.5 million per acre. These recent transactions include three "outliers" —the Park Tower, Salesforce Tower, and 535 Mission Street sites around the new Transbay Terminal, which allow much higher density than any of the other sites in the sample—that significantly skew the average land values upward on a per-acre basis.

- Because of the differences in allowable densities among these sample transactions, it is likely more instructive to consider the land values as they relate to allowable development. Over the past 11 years, commercial land in the subject area has transacted at an average of roughly \$150 per buildable square foot, meaning a site on which a developer could build a 100,000-square foot building would sell for \$15 million. Residential land has averaged roughly \$97,000 per buildable unit during that same 11-year period, meaning a site on which 100 units could be built would sell for \$9.7 million.
- The more recent transactions from 2013 through 2015 yield higher values per square foot than the overall sample from the past 11 years. The more recent commercial values have averaged \$174 per buildable square foot (vs. \$154 for the 11-year sample), while the residential values have averaged \$119,055 per buildable unit (vs. \$96,953 for the 11-year sample).
- The land transaction data indicate that land sold for lower-density residential projects (under 200 units per acre) consistently have yielded higher land values per buildable unit than land for projects over 200 units per acre. This may be because construction costs for higher density projects are greater than for lower-density projects, while achievable home values in higher-density projects may not fully offset the added construction costs.
- The data for commercial transaction are less conclusive, as the three transactions yielding the highest land value per buildable square foot are also uniquely located near the Transbay Terminal and have extraordinary allowable density (FARs above 18.0), whereas all other commercial land transactions have lower than a 10.0 FAR and have more consistent values per buildable square foot. The three “outliers” therefore may represent uniquely attractive investments that may not be replicable on a typical parcel in the RAB study, except possibly on the 4<sup>th</sup> and King site itself if it is to have a high-capacity transit station as well as private development.
- As shown in **Figures 2 and 3**, the transactions can be disaggregated by location, with separate indicators for the Mission Bay/Central Waterfront, Transbay District, and West SOMA areas shown on **Figure 1**. These geographic distinctions reveal that, in general, the highest land values both on a per-acre basis and a per-buildable commercial square foot basis have been in the vicinity of the new Transbay Terminal. These premium prices reflect both the additional density allowable in that area under the City’s Transit Center District Plan, and the value premiums frequently associated with proximity to major transportation hubs. These results are instructive in that they suggest that optimal land values at 4<sup>th</sup> and King and other sites would be realized if they are associated with significant transit services.
- **Figure 4** provides a similar geographic disaggregation for residential transactions on a per-unit basis, and indicates less clear geographic differences. In fact, the Transbay District area appears to have yielded somewhat lower land values per buildable residential unit than the overall sample. These trendlines are influenced by a few significant outliers, however, and in all geographic areas the great majority of transactions have been between \$50,000 and \$150,000 per buildable unit.

- The land transactions evaluated herein have occurred over a 10-year period that has featured both extraordinarily strong market conditions and an international recession. To estimate land values in a “stabilized” market condition, EPS believes it is most useful to apply the average values over the period, rather than assuming that currently strong values will necessarily continue. For purposes of comparing the land values that may apply to development of the 4<sup>th</sup> and King site or other sites in the RAB study, EPS recommends using the following assumptions:

**Commercial:**

- FAR 1-5: \$127/Buildable Commercial Sq. Ft.
- FAR 5-10: \$162/Buildable Commercial Sq. Ft.
- FAR 10+: \$183/Buildable Commercial Sq. Ft.
- Because the Transbay area is demonstrating a clear premium on commercial land, assign a 10 percent premium to the figures above if the subject site is at a significant multi-modal transit station such as a 4<sup>th</sup> & King High-Speed Rail station.

**Residential:**

- 1-200 DU/Acre: \$157,100/Buildable Residential Unit
- 200+ DU/Acre +: \$77,500/Buildable Residential Unit
- Because the Transbay area is not demonstrating a clear premium on residential land pricing, no value premium is recommended for residential development at a multi-modal transit station at 4<sup>th</sup> & King or elsewhere.

## Key Findings: Land Valuations

The previous figures have been applied to the Planning Department’s potential land use scenarios in order to estimate the land values associated with various sites that may be available for development. As shown in **Table 4**, the Planning Department has confirmed three possible scenarios, two Railyard site scenarios (partial electrification and full electrification) and one Boulevard site scenario. The full buildout of the partial electrification scenario for the Railyards site would include only commercial space (both retail and office), while full electrification of the site would replace some office uses with residential space. The Boulevard sites are currently assumed to be used for residential development. Using the projected programs of these scenarios, EPS estimated the floor area ratio for commercial development and units per acre for residential development and applied the appropriate buildable land values as noted in the previous section.

- Partial electrification of the Railyards site is estimated to yield a higher potential value than full electrification of the site, despite having very similar total square footage of buildings. The land use program of the partial electrification scenario, based on historical trends,

is estimated to yield \$421.6 million, while the full electrification scenario is estimated to yield \$281.4 million, reflecting that commercial development may yield higher values than residential land use.<sup>1</sup>

- Based on our estimates, the Boulevard sites, designated entirely for residential development, are estimated to yield approximately \$95.6 million at buildout.

Please note that these land values assume parcels are sold or leased for individual buildings rather than being a "bulk sale" that may yield a discount because the buildings would be phased and the developer would not realize their full financial returns in the short-term.

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<sup>1</sup> Assumes that an average residential unit is 1,200 gross square feet.



## APPENDIX

**Figure 1 Recent Land Sales Near 4<sup>th</sup> and King (See Table 1 for location details)**

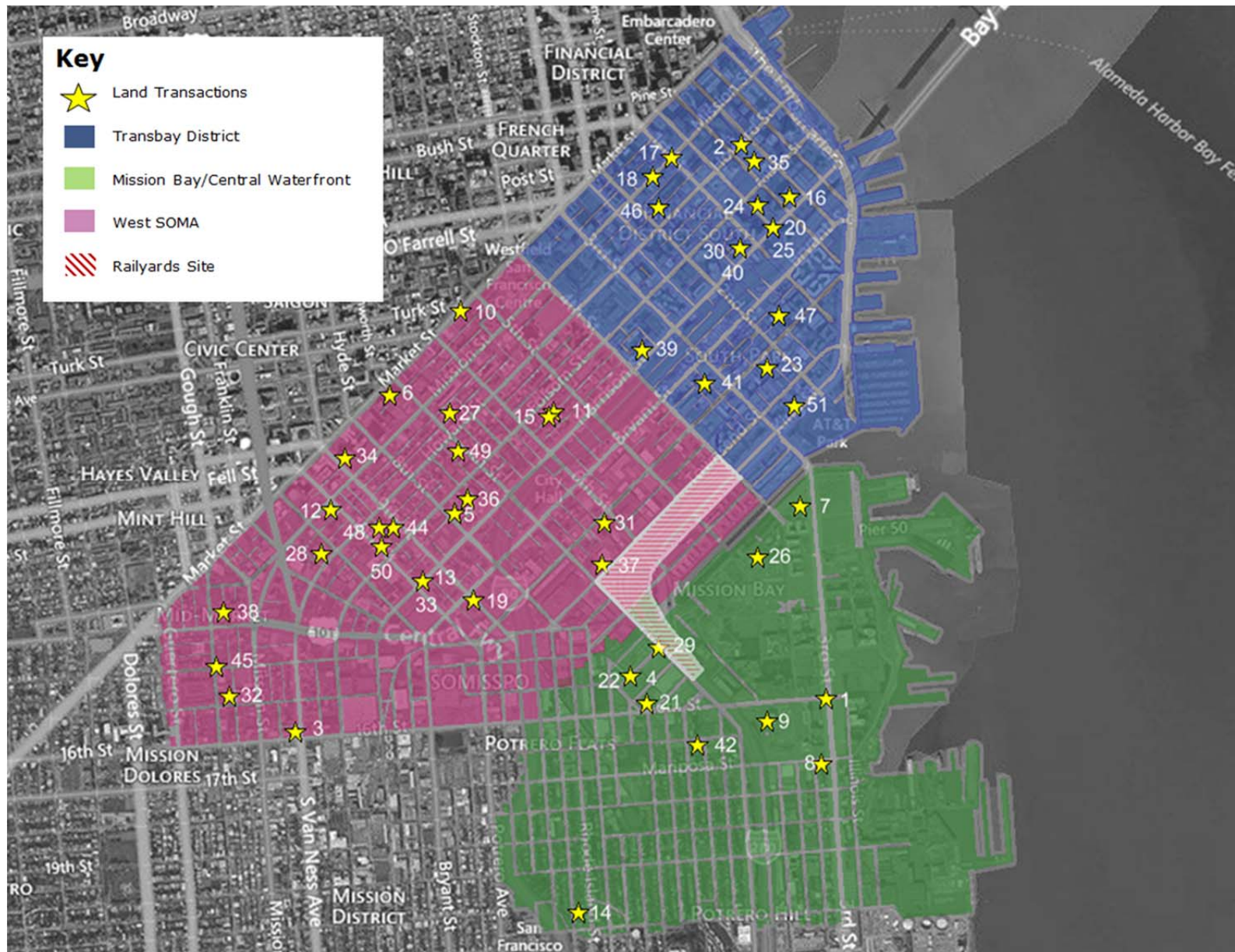




Table 1  
Summary Table

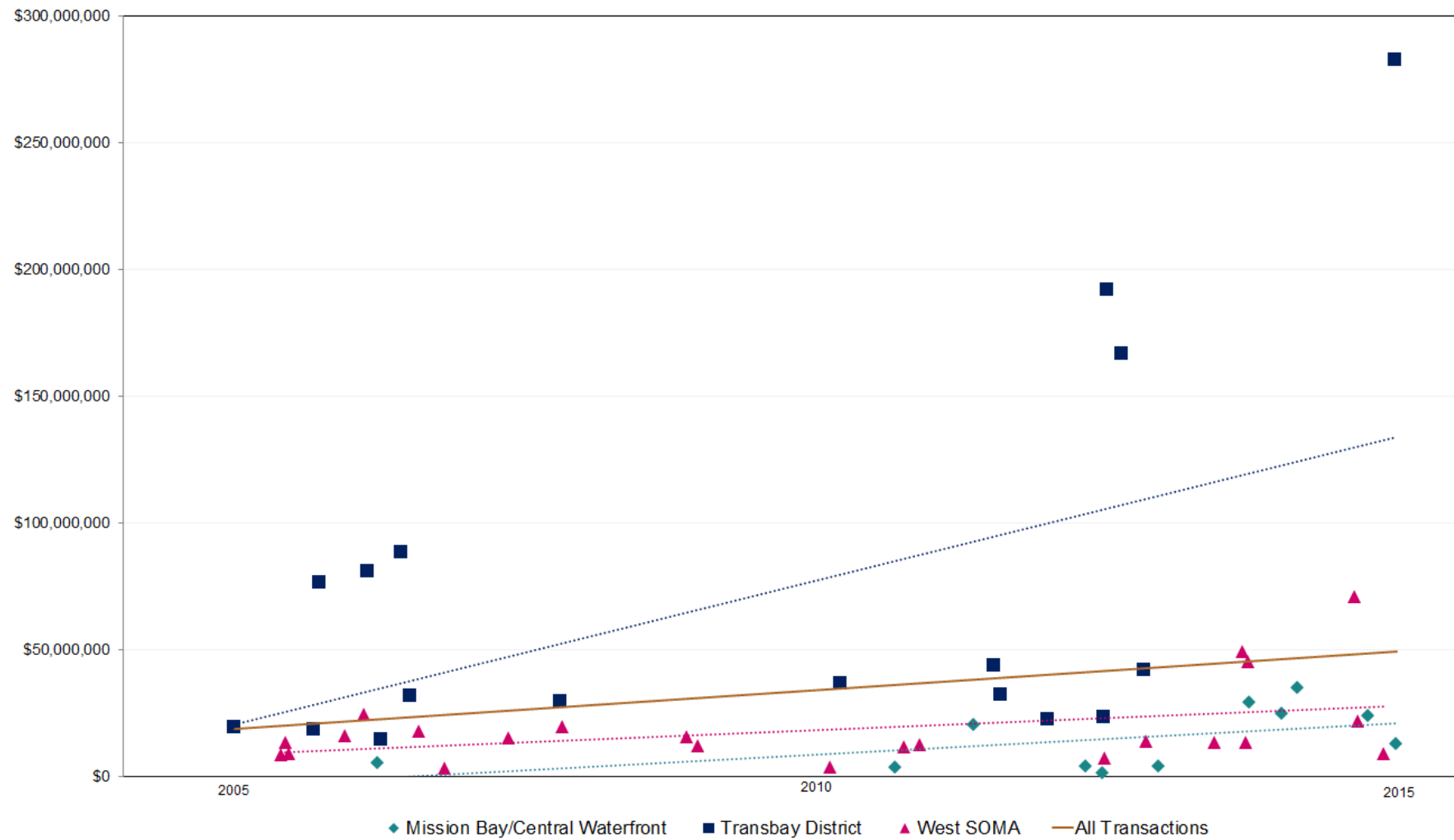
No.	Zone	Buyer Company or Project	Property Name	Property Address	Sale Date	Sale Price	Land Size		Buildable Area		FAR <sup>2</sup>	DU/Acre <sup>2</sup>	Price per Land Area		Price per Buildable Area		Zoning	Proposed Use
							Acres	Sq. Ft.	Commercial Sq. Ft.	Residential Units			per Acre	per Sq. Ft.	per Commercial Bldg. Sq. Ft.	per Unit		
1	Mission Bay/Central Waterfront	GSW Arena, LLC	Golden State Warriors Arena	3rd St at 16th St	10/9/2015	\$155,100,000	12.0	523,051	580,000	-	1.1	-	\$12,914,238	\$297	\$267	-	MB-RA	Office
2	Transbay District	Park Tower	Transbay Block 5	250 Howard St	10/6/2015	\$172,500,000	0.6	26,353	675,000	-	25.6	-	\$282,786,885	\$6,546	\$256	-	-	Office
3	West SOMA	City & County of San Francisco		490 S Van Ness Ave	8/28/2015	\$18,500,000	2.1	91,123	-	72	-	34.4	\$8,851,675	\$203	-	\$256,944	UMU	Apartment/Condo
4	Mission Bay/Central Waterfront	Kilroy Realty Corporation		100-170 Hooper St	7/7/2015	\$78,000,000	3.3	143,064	450,000	-	3.1	-	\$23,780,488	\$545	\$173	-	PDR-1-D	Office
5	West SOMA	Rodgers Street LLC		349 8th St	6/2/2015	\$5,400,000	0.3	10,890	1,236	38	0.1	152.0	\$21,600,000	\$496	-	\$142,105	WMUG	Mixed Use
6	West SOMA	Pacific 1125 Market Corporation		1121-1125 Market St	5/22/2015	\$19,800,000	0.3	12,401	-	150	-	535.7	\$70,714,286	\$1,597	-	\$132,000	C-3-G	Apartment
7	Mission Bay/Central Waterfront	1000 Channel Street (SF) Owner, LLC	2 Acre Development Site	1000 Channel St	11/12/2014	\$70,000,000	2.0	87,120	-	350	-	175.0	\$35,000,000	\$803	-	\$200,000	MB-RA	Apartment
8	Mission Bay/Central Waterfront	Ricardo Pimienta		595 Mariposa St	9/19/2014	\$2,210,000	0.1	3,706	-	20	-	222.2	\$24,555,556	\$596	-	\$110,500	UMU	Apartment/Condo
9	Mission Bay/Central Waterfront	KR Mission Bay, LLC	Block 40	1800 Owens St	6/2/2014	\$95,000,000	3.3	141,413	700,000	-	5.0	-	\$29,230,769	\$672	\$136	-	MB-RA	Medical/Office
10	West SOMA	MSP Property, LLC		949-965 Market St	5/30/2014	\$48,000,000	1.1	46,173	375,000	-	8.1	-	\$45,283,019	\$1,040	\$128	-	C3G, San Francisco	Office/Retail
11	West SOMA	V Shiplet Street LLC		Shipley St at Falmouth St	5/21/2014	\$1,705,000	0.1	5,445	-	15	-	115.4	\$13,115,385	\$313	-	\$113,667	MUR	Mixed Use
12	West SOMA	Monogram Residential		1401-1415 Mission St	5/9/2014	\$12,800,000	0.3	11,425	-	121	-	465.4	\$49,230,769	\$1,120	-	\$105,785	-	Apartment Units
13	West SOMA	Mercer 1326 LLC <sup>3</sup>		1376 Harrison St	2/5/2014	\$665,000	0.1	2,374	5,342	-	2.3	-	\$13,300,000	\$280	\$124	-	WMUG	Hold for Development
14	Mission Bay/Central Waterfront	945 Kansas St LLC		945-951 Kansas St	7/30/2013	\$1,100,000	0.3	12,475	-	9	-	31.0	\$3,793,103	\$88	-	\$122,222	Rh2	Apartment Units
15	West SOMA	Naughton P P & B A 2004 Trust		254 Shipley St	6/20/2013	\$1,100,000	0.1	3,484	7,839	-	2.3	-	\$13,750,000	\$316	\$140	-	MUR	Mixed Use
16	Transbay District	201 Folsom Acquisition, LP	201 Folsom Site	201 Folsom St	6/10/2013	\$73,000,000	1.7	75,358	-	655	-	378.6	\$42,196,532	\$969	-	\$111,450	RC-4	Apartment
17	Transbay District	Salesforce Tower	Transbay Tower Land	101 1st St	3/26/2013	\$191,816,196	1.2	49,998	1,400,000	-	28.0	-	\$166,796,692	\$3,836	\$137	-	P	Office
18	Transbay District	535 Mission	High Rise Office Site	531-539 Mission St	2/6/2013	\$71,000,000	0.4	16,308	307,000	-	18.8	-	\$191,891,892	\$4,354	\$231	-	C30, San Francisco	Office
19	West SOMA	520 9th Street LLC		520 9th St	1/30/2013	\$775,000	0.1	4,778	-	12	-	109.1	\$7,045,455	\$162	-	\$64,583	UMU	Apartment
20	Transbay District	UDR, Inc.	Site for Residential Tower	399 Fremont St	1/28/2013	\$20,200,000	0.9	37,897	-	452	-	519.5	\$23,218,391	\$533	-	\$44,690	RH DTR	Apartment
21	Mission Bay/Central Waterfront	Nibbi Brothers, Inc.		485 Irwin St	1/24/2013	\$1,600,000	1.1	47,916	179,685	-	3.8	-	\$1,454,545	\$33	\$9	-	PDR-1-D	Parking Lot
22	Mission Bay/Central Waterfront	100 Hooper Fee Owner, LLC		100-170 Hooper St	11/28/2012	\$12,500,000	3.3	143,064	427,000	-	3.0	-	\$3,810,976	\$87	\$29	-	PDR-1-D	Office
23	Transbay District	Kilroy Realty Corporation		329 Brannan St	7/20/2012	\$18,500,000	0.8	35,701	180,000	-	5.0	-	\$22,560,976	\$518	\$103	-	SSO	Office
24	Transbay District	Fremont 325 Development, LLC		325 Fremont St	2/15/2012	\$4,850,000	0.2	6,433	-	70	-	466.7	\$32,333,333	\$754	-	\$69,286	RH-DTR	Apartment
25	Transbay District	OM/UDR SF, LLC	Site for Residential Tower	399 Fremont St	1/24/2012	\$38,000,000	0.9	37,897	-	468	-	537.9	\$43,678,161	\$1,003	-	\$81,197	RH DTR	Apartment
26	Mission Bay/Central Waterfront	EQR - Mission Bay Block 13 LP	Lot 13 - Development site	650-690 Long Bridge St	11/17/2011	\$32,760,000	1.6	71,002	-	273	-	167.5	\$20,098,160	\$461	-	\$120,000	MB-RA	Multifamily
27	West SOMA	STS Investments, LLC		574 Natoma St	5/20/2011	\$500,000	0.0	1,873	-	11	-	275.0	\$12,500,000	\$267	-	\$45,455	RED	Multifamily
28	West SOMA	Sylvester Carolan		1029 Natoma St	3/28/2011	\$576,500	0.1	1,999	-	4	-	80.0	\$11,530,000	\$288	-	\$144,125	SLR	Apartment/Condo
29	Mission Bay/Central Waterfront	California College of the Arts	California College of the Arts Expansion Site	1100 7th St	2/24/2011	\$8,400,000	2.4	102,801	385,504	-	3.8	-	\$3,559,322	\$82	\$22	-	PDR-1-D	Commercial
30	Transbay District	45 Lansing Development, LLC		45 Lansing St	8/24/2010	\$12,500,000	0.3	14,997	-	217	-	638.2	\$36,764,706	\$834	-	\$57,604	RMU, San Francisco	Apartment/Condo
31	West SOMA	First California Investments		713 Brannan St	7/22/2010	\$865,000	0.2	10,349	23,285	-	2.3	-	\$3,604,167	\$84	\$37	-	SALI	Parking Lot
32	West SOMA	National American Health Ctr		80 Julian Ave	5/1/2009	\$830,000	0.1	2,996	-	15	-	214.3	\$11,857,143	\$277	-	\$55,333	VALEN	Apartment Units ...
33	West SOMA	Golden Gate Partners LLC <sup>3</sup>		1376 Harrison St	3/25/2009	\$775,000	0.1	2,374	5,342	-	2.3	-	\$15,500,000	\$326	\$145	-	WMUG	Hold for Development
34	West SOMA	55 Ninth, LLC		55 9th St	1/30/2008	\$15,750,000	0.8	35,801	-	260	-	317.1	\$19,207,317	\$440	-	\$60,577	C-3-G, San Francisco	Apartment/Condo
35	Transbay District	Transbay Joint Powers Authority		200 Main St	1/23/2008	\$6,488,720	0.2	9,548	42,966	-	4.5	-	\$29,494,182	\$680	\$151	-	C3OSD	Truck Terminal
36	West SOMA	Jian Qiang Li and Jie Ying Ming		16-18 Brush Pl	8/1/2007	\$450,000	0.0	1,481	2,777	-	1.9	-	\$15,000,000	\$304	\$162	-	SLR	Parking Lot
37	West SOMA	Townsend Dev Partners		570 Townsend St	12/29/2006	\$5,400,000	1.7	75,620	-	80	-	46.0	\$3,103,448	\$71	-	\$67,500	SLI	Multifamily
38	West SOMA	1360-1364 Stevenson Street LLC	Land	1360-1364 Stevenson St	10/6/2006	\$1,400,000	0.1	3,541	-	5	-	62.5	\$17,500,000	\$395	-	\$280,000	CM, San Francisco	Multifamily
39	Transbay District	60 Rausch, LLC		766 Harrison St	9/6/2006	\$5,121,500	0.2	6,882	-	98	-	612.5	\$32,009,375	\$744	-	\$52,260	M1	Multifamily
40	Transbay District	Turnberry Ltd.		45 Lansing St	8/7/2006	\$30,000,000	0.3	14,997	-	265	-	779.4	\$88,235,294	\$2,000	-	\$113,208	RMU, San Francisco	Apartment Units - Condo
41	Transbay District	John S. Cooney	SLI Zoned Lot	246 Ritch St	5/31/2006	\$1,300,000	0.1	4,125	-	19	-	211.1	\$14,444,444	\$315	-	\$68,421	SLI, San Francisco	Apartment Units - Condo
42	Mission Bay/Central Waterfront	Potrero Hill Imaging, LLC <sup>3</sup>	Hold For Development Site	100 Texas St	5/19/2006	\$1,665,000	0.3	13,503	50,636	-	3.8	-	\$5,370,968	\$123	\$33	-	M1, San Francisco	Hold for Development
43	Transbay District	535 Mission Street Property, LLC	High Rise Office Site	531-539 Mission St	4/13/2006	\$30,000,000	0.4	16,308	110,079	-	6.8	-	\$81,081,081	\$1,840	\$273	-	C30, San Francisco	Office
44	West SOMA	Cal-Bay International, Inc. <sup>3</sup>	C-3S Zoned Lot	248-252 9th St	4/3/2006	\$2,650,000	0.1	5,000	-	14	-	127.3	\$24,090,909	\$530	-	\$189,286	C-3S, San Francisco	Hold for Development
45	West SOMA	299 Valencia Street, LLC	Condominium Site	299 Valencia St	1/27/2006	\$3,950,000	0.3	10,890	-	202	-	808.0	\$15,800,000	\$363	-	\$19,554	CM, San Francisco	Apartment Units - Condo
46	Transbay District	Transbay Joint Powers Authority	Hold For Development Site	80 Natoma St	11/2/2005	\$58,000,000	0.8	32,900	222,075	-	6.8	-	\$76,315,789	\$1,763	\$261	-	C3O, San Francisco	Hold for Development
47	Transbay District	South Beach Partners, LLC		270 Brannan St	10/13/2005	\$16,000,000	0.9	37,814	-	106	-	121.8	\$18,390,805	\$423	-	\$150,943	SSO, San Francisco	Office
48	West SOMA	30 Dore, LLC	42 Unit Condominium Complex Site	24 Dore St	7/22/2005	\$1,800,000	0.2	8,498	6,374	-	0.8	-	\$9,000,000	\$212	\$282	-	RED-MX	Apartment/Condo
49	West SOMA	South Beach Partners, LLC	Multi-Family Condominium Site	230-234 7th St	7/14/2005	\$3,700,000	0.3	12,196	-	40	-	142.9	\$13,214,286	\$303	-	\$92,500	SLR, San Francisco	Apartment/Condo
50	West SOMA	Redevelopment Agency CCSF	Multi Family Subsidized Units Site	275 10th St	6/27/2005	\$4,000,000	0.5	20,473	-	134	-	285.1	\$8,510,638	\$195	-	\$29,851	C-M, San Francisco	Apartment/Condo
51	Transbay District	Chelsea King Street, LLC	Hotel Site	144 King St	1/21/2005	\$4,500,000	0.2	9,866	94,500	-	9.6	-	\$19,565,217	\$456	\$48	-	M2, San Francisco	Hotel
Total/ Average						\$1,363,502,916	48.3	2,103,681	6,231,639	4,175	12.6	419.4	\$28,235,720	\$648	\$154	\$96,953		
Sold 2013-Current						\$1,040,271,196	31.06	1,352,752	4,681,102	1,894	15.3	367.9	\$33,492,312	\$769	\$174	\$119,055		
Sold 2009-2012						\$131,056,500	9.9	431,486	1,021,131	1,058	3.6	449.1	\$13,238,030	\$304	\$40	\$85,082		
Sold 2005-2008						\$192,175,220	7.33	319,443	529,407	1,223	6.7	473.3	\$26,217,629	\$602	\$194	\$72,994		
Weighted Average excluding Outliers <sup>1</sup>						\$928,186,720	46.2	2,011,022	3,849,639	4,175	4.3	419.4	\$20,108,031	\$462	\$137	\$96,953		

Source: CoStar and Economic and Planning Systems, Inc.

[1] Outliers include the Park Tower, Salesforce Tower, and 535 Mission St.

[2] EPS estimated the DU/Acre and FARs for sales with undisclosed data through investigation of local zoning requirements.

**Figure 2 Price per Acre by Location**



Source: CoStar, EPS

**Table 2 Summary of Commercial Land Transactions**

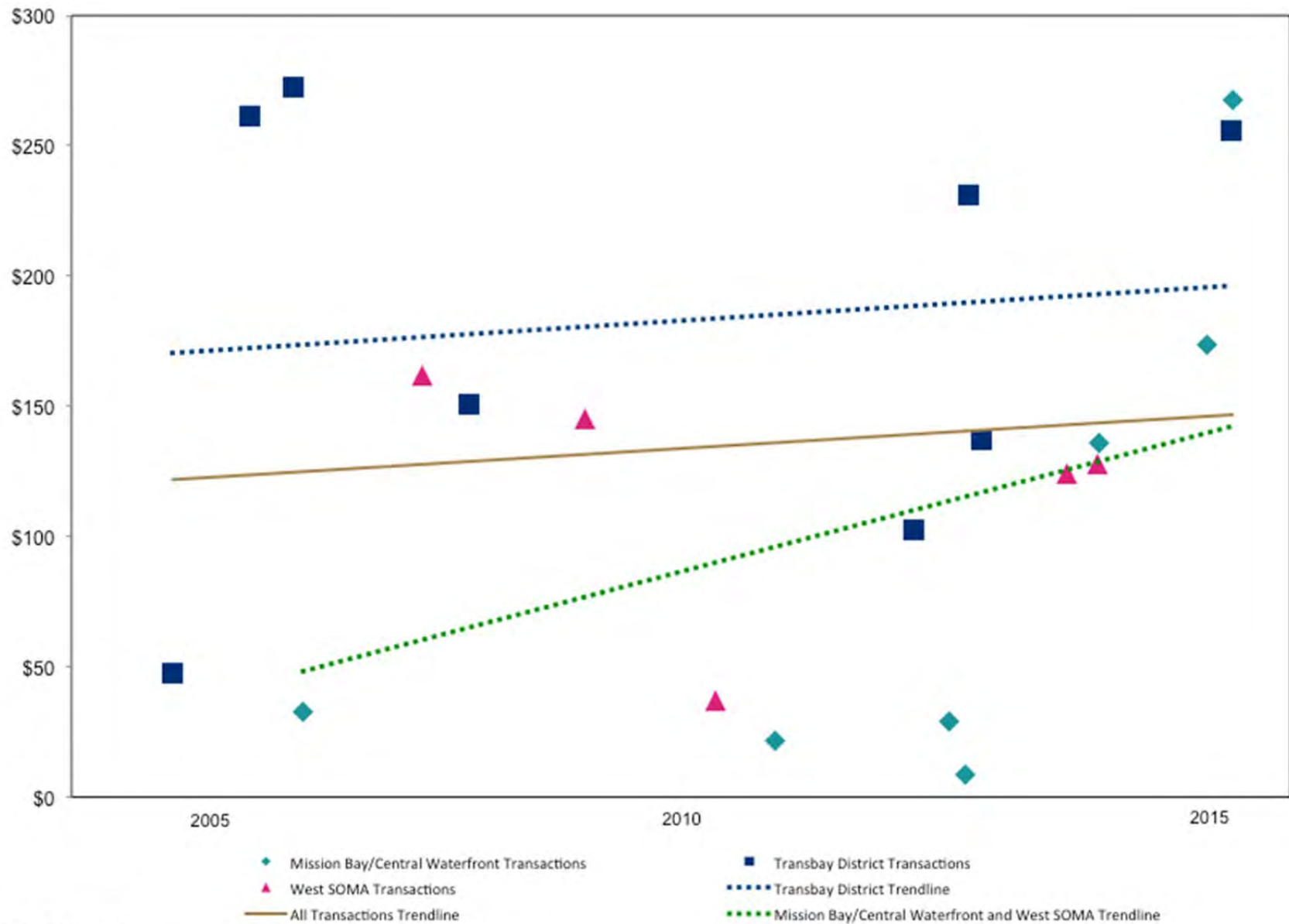
Commercial Summary	No. of Transactions	Sale Price	Land Size		Commercial Sq. Ft.	FAR <sup>2</sup>	Price per Land Area		Price per Buildable Sq. Ft.
			Acres	Sq. Ft.			per Acre	per Sq. Ft.	
<b>Total/ Weighted Average</b>	<b>20</b>	<b>\$955,824,916</b>	<b>31.6</b>	<b>\$1,374,545</b>	<b>6,216,190</b>	<b>12.7</b>	<b>\$30,295,560</b>	<b>\$695</b>	<b>\$154</b>
FAR 1-5	12	\$361,508,720	26.2	\$1,140,938	2,852,536	3.3	\$13,808,584	\$317	\$127
FAR 5-10	5	\$159,000,000	3.2	\$140,948	981,654	7.2	\$49,074,074	\$1,128	\$162
FAR 10+	3	\$435,316,196	2.1	\$92,659	2,382,000	26.1	\$204,373,801	\$4,698	\$183
<b>Sold 2013-Current</b>	<b>9</b>	<b>\$813,681,196</b>	<b>22.9</b>	<b>\$996,650</b>	<b>4,672,027</b>	<b>15.3</b>	<b>\$35,562,989</b>	<b>\$816</b>	<b>\$174</b>
FAR 1-5	5	\$330,365,000	19.7	\$857,818	1,915,027	3.2	\$16,778,314	\$385	\$173
FAR 5-10	1	\$48,000,000	1.1	\$46,173	375,000	8.1	\$45,283,019	\$1,040	\$128
FAR 10+	3	\$435,316,196	2.1	\$92,659	2,382,000	26.1	\$204,373,801	\$4,698	\$183
<b>Sold 2009-2012</b>	<b>5</b>	<b>\$41,040,000</b>	<b>6.8</b>	<b>\$294,289</b>	<b>1,021,131</b>	<b>3.6</b>	<b>\$6,080,000</b>	<b>\$139</b>	<b>\$40</b>
FAR 1-5	4	\$22,540,000	5.9	\$258,588	841,131	3.3	\$3,801,012	\$87	\$27
FAR 5-10	1	\$18,500,000	0.8	\$35,701	180,000	5.0	\$22,560,976	\$518	\$103
FAR 10+	-	-	-	-	-	-	-	-	-
<b>Sold 2005-2008</b>	<b>6</b>	<b>\$101,103,720</b>	<b>1.9</b>	<b>\$83,606</b>	<b>523,033</b>	<b>6.8</b>	<b>\$52,658,188</b>	<b>\$1,209</b>	<b>\$193</b>
FAR 1-5	3	\$8,603,720	0.6	\$24,532	96,379	4.0	\$15,363,786	\$351	\$89
FAR 5-10	3	\$92,500,000	1.4	\$59,074	426,654	7.4	\$68,014,706	\$1,566	\$217
FAR 10+	-	-	-	-	-	-	-	-	-

Source: CoStar and Economic and Planning Systems, Inc.

[1] Outliers include the Park Tower, Salesforce Tower, and 535 Mission St.

[2] EPS estimated the FARs for sales with undisclosed data through investigation of local zoning requirements.

**Figure 3 Price per Buildable Commercial Sq. Ft.**



Source: CoStar, EPS

**Table 3 Summary of Residential Land Transactions on Site**

Residential Summary	No. of Transactions	Sale Price	Land Size		Units <sup>1</sup>	DU/Acre <sup>2</sup>	Price per Land Area		Price per Buildable Unit
			Acres	Sq. Ft.			per Acre	per Sq. Ft.	
<b>Total/ Weighted Average</b>	<b>31</b>	<b>\$407,678,000</b>	<b>16.74</b>	<b>729,136</b>	<b>4,175</b>	<b>419.4</b>	<b>\$24,353,524</b>	<b>\$559</b>	<b>\$96,953</b>
1-200 DU/Acre	13	\$159,966,500	9.63	419,003	1,018	140.7	\$16,611,267	\$382	\$157,138
200+ DU/Acre	16	\$210,861,500	6.83	298,151	3,157	509.2	\$35,843,558	\$821	\$77,546
<b>Sold 2013-Current<sup>3</sup></b>	<b>12</b>	<b>\$226,590,000</b>	<b>8.18</b>	<b>356,102</b>	<b>1,894</b>	<b>367.9</b>	<b>\$27,700,489</b>	<b>\$634</b>	<b>\$119,055</b>
1-200 DU/Acre	6	\$97,480,000	4.87	211,831	496	146.8	\$20,016,427	\$460	\$196,532
200+ DU/Acre	5	\$128,010,000	3.23	140,787	1,398	446.3	\$39,631,579	\$909	\$91,567
<b>Sold 2009-2012</b>	<b>7</b>	<b>\$90,016,500</b>	<b>3.15</b>	<b>137,197</b>	<b>1,058</b>	<b>449.1</b>	<b>\$28,576,667</b>	<b>\$656</b>	<b>\$85,082</b>
1-200 DU/Acre	2	\$33,336,500	1.68	73,001	277	166.2	\$19,843,155	\$457	\$120,348
200+ DU/Acre	5	\$56,680,000	1.47	64,196	781	549.5	\$38,557,823	\$883	\$72,574
<b>Sold 2005-2008<sup>3</sup></b>	<b>12</b>	<b>\$91,071,500</b>	<b>5.41</b>	<b>235,837</b>	<b>1,223</b>	<b>473.3</b>	<b>\$16,833,919</b>	<b>\$386</b>	<b>\$72,994</b>
1-200 DU/Acre	5	\$29,150,000	3.08	134,171	245	99.6	\$9,464,286	\$217	\$118,980
200+ DU/Acre	6	\$60,121,500	2.13	93,168	978	566.9	\$28,226,056	\$645	\$61,474

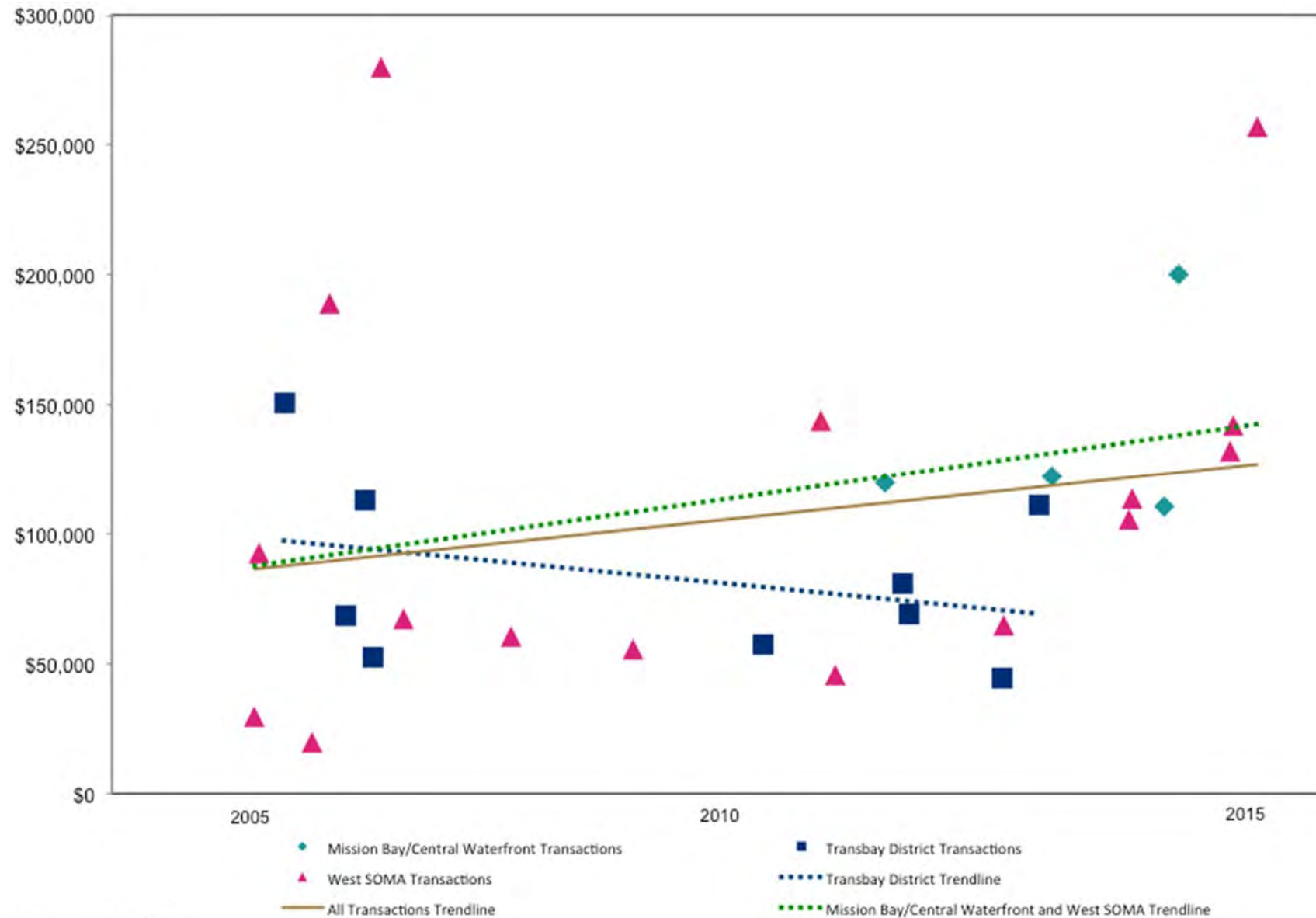
Source: CoStar and Economic and Planning Systems, Inc.

[1] Residential unit estimates include mixed-use projects.

[2] EPS estimated the DU/Acre for sales with undisclosed data through investigation of local zoning requirements.

[3] Two of the thirty one residential property transactions are excluded from the dwelling units per acre categories due to lack of data.

**Figure 4 Price per Buildable Residential Unit**



Source: CoStar, EPS



**Table 4 Summary of Land Valuations by Site**

Scenario	Office (Sq.Ft.) <sup>1</sup>	Commercial (Sq.Ft.) <sup>1</sup>	Residential (Sq.Ft.) <sup>1</sup>	Total Value
<b>4th and King</b>				
Partial Electrification	2,429,346	114,821	-	\$421,632,894
Full Electrification	1,055,068	114,821	1,459,804	\$281,411,573
<b>Boulevard</b>	-	-	1,355,136	\$95,558,800

Source: City of San Francisco and Economic and Planning Systems, Inc.

**Table 5 Valuation of Partial Electrification of Railyards Site**

Item	Office (Sq.Ft.) <sup>1</sup>	Commercial (Sq.Ft.) <sup>1</sup>	Total (Sq.Ft.)	Max Building Footprint <sup>1</sup>	Est. Land Size (Acre) <sup>2</sup>	Est. FAR	Est. Price per Sq.Ft. <sup>3</sup>	Total Value
K1	228,748	10,398	239,146	20,795	0.60	9.2	\$162	\$38,741,644
K2	294,910	13,405	308,315	26,810	0.77	9.2	\$162	\$49,947,030
K3	219,450	9,975	229,425	19,950	0.57	9.2	\$162	\$37,166,850
K4	311,960	14,180	326,140	28,360	0.81	9.2	\$162	\$52,834,680
T1	106,947	7,130	114,077	14,260	0.41	6.4	\$162	\$18,480,442
T2	137,880	9,192	147,072	18,384	0.53	6.4	\$162	\$23,825,664
T3	143,100	9,540	152,640	19,080	0.55	6.4	\$162	\$24,727,680
T4	143,100	9,540	152,640	19,080	0.55	6.4	\$162	\$24,727,680
T5	396,928	26,462	423,390	52,924	1.52	6.4	\$162	\$68,589,115
4th/King Tower	<u>446,323</u>	<u>5,000</u>	<u>451,323</u>	21,505	<u>0.62</u>	16.8	\$183	<u>\$82,592,109</u>
<b>Total</b>	<b>2,429,346</b>	<b>114,821</b>	<b>2,544,167</b>		<b>6.92</b>			<b>\$421,632,894</b>

<sup>1</sup> Provided by the City of San Francisco, Planning Department.

<sup>2</sup> Assumes that max building footprint is 80% of total land size. This assumption was confirmed by the City of San Francisco Planning Department.

<sup>3</sup> Average price per buildable commercial sq.ft. in the category 5-10 FAR is \$162 and \$183 for FAR 10+.

Source: City of San Francisco and Economic and Planning Systems, Inc.

**Table 6 Valuation of Full Electrification of Railyards Site**

Item	Office (Sq.Ft.) <sup>1</sup>	Commercial (Sq.Ft.) <sup>1</sup>	Residential (Sq.Ft.) <sup>1</sup>	Total Commercial (Sq.Ft.)	Total Residential (Units) <sup>2</sup>	Max Building Footprint <sup>1</sup>	Est. Land Size (Acre) <sup>3</sup>	Est. FAR	Est. DU/AC	Commercial		Residential	
										Est. Price per Unit <sup>4</sup>	Total Value	Est. Price per Unit <sup>5</sup>	Total Value
K1	228,748	10,398	-	239,146	-	20,795	0.60	9.2	-	\$162	\$38,734,835	-	-
K2	294,910	13,405	-	308,315	-	26,810	0.77	9.2	-	\$162	\$49,938,252	-	-
K3	219,450	9,975	-	229,425	-	19,950	0.57	9.2	-	\$162	\$37,160,318	-	-
K4	311,960	14,180	-	326,140	-	28,360	0.81	9.2	-	\$162	\$52,825,395	-	-
T1	-	7,130	99,817	7,130	83	14,260	0.41	0.4	203.3	\$127	\$903,577	\$77,500	\$6,446,528
T2	-	9,192	128,688	9,192	107	18,384	0.53	0.4	203.3	\$127	\$1,164,924	\$77,500	\$8,311,100
T3	-	9,540	133,560	9,540	111	19,080	0.55	0.4	203.3	\$127	\$1,209,027	\$77,500	\$8,625,750
T4	-	9,540	133,560	9,540	111	19,080	0.55	0.4	203.3	\$127	\$1,209,027	\$77,500	\$8,625,750
T5	-	26,462	370,466	26,462	309	52,924	1.52	0.4	203.3	\$127	\$3,353,573	\$77,500	\$23,925,923
4th/King Tower	-	5,000	593,713	5,000	495	21,505	0.62	0.2	801.7	\$127	\$633,662	\$77,500	\$38,343,932
<b>Total</b>	<b>1,055,068</b>	<b>114,821</b>	<b>1,459,804</b>	<b>1,169,890</b>	<b>1,217</b>		<b>6.92</b>				<b>\$187,132,591</b>		<b>\$94,278,983</b>

<sup>1</sup> Provided by the City of San Francisco, Planning Department.

<sup>2</sup> Assumes an average of 1,200 gross sq.ft. per unit.

<sup>3</sup> Assumes that max building footprint is 80% of total land size. This assumption was confirmed by the City of San Francisco Planning Department.

<sup>4</sup> Average price per buildable commercial sq.ft. in the category 1-5 FAR is \$127 and for 5-10 FAR is \$162.

<sup>5</sup> Average price per buildable residential unit in the category 200+ DU/AC is \$77,500.

Source: City of San Francisco and Economic and Planning Systems, Inc.

**Table 7 Valuation of Boulevard Sites**

Item	Residential (Sq.Ft.)	Total Residential (Units) <sup>1</sup>	Max Building Footprint	Est. Land Size (Sq.Ft.) <sup>2</sup>	Est. Land Size (Acre)	Est. DU/AC	Est. Price per Unit <sup>3</sup>	Total Value
B1	204,597	170	25,575	31,968	0.73	232.3	\$77,500	\$13,213,556
B2	183,934	153	22,992	28,740	0.66	232.3	\$77,500	\$11,879,071
B3-Base	121,200	101	30,300	37,875	0.87	116.2	\$157,100	\$15,867,100
B3-Tower	192,000	160	12,000	15,000	0.34	464.6	\$77,500	\$12,400,000
B4	406,917	339	45,213	56,516	1.30	261.4	\$77,500	\$26,280,056
B5	246,488	205	27,388	34,234	0.79	261.4	\$77,500	\$15,919,017
<b>Total</b>	<b>1,355,136</b>	<b>1,129</b>		<b>204,334</b>	<b>4.69</b>			<b>\$95,558,800</b>

<sup>1</sup> Assumes an average of 1,200 gross sq.ft. per unit.

<sup>2</sup> Assumes that max building footprint is 80% of total land size. This assumption was confirmed by the City of San Francisco Planning Department.

<sup>3</sup> Average price per buildable residential unit in the category 1-200 DU/AC is \$157,100 and \$77,500 for the category 200+ DU/AC.

Source: City of San Francisco and Economic and Planning Systems, Inc.