MEMORANDUM

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To: Charles Bryant, AICP
Community Development Director, City of Emeryville

From: Debbie Kern and Kevin Feeney

Date: August 12, 2019

Subject: Financial Feasibility Analysis of Hypothetical High-Rise Residential Prototypes

In accordance with your request, Keyser Marston Associates, Inc. (KMA) has evaluated the development economics of hypothetical high-rise residential projects as well as the economics of mid-rise residential development, which is currently the predominate residential product type being built in Emeryville. The purpose of the analysis is to determine if the development of high-rise residential projects is likely to be financially feasible given the City's current requirements, including unit mix requirements that limit a project's percentage of studio and one-bedroom units. The findings of the analysis are summarized in this memorandum.

Background

The City's planning regulations require that residential projects of 10 or more units include a minimum percentage of two- and three-bedroom units. The regulations stipulate that at least 50% of units must have two or more bedrooms and 15% of units must have three or more bedrooms. In addition, a maximum of 10% of units are permitted to be studios. The intent of the regulations is to encourage the development of larger units that can accommodate families with children.

The City has received feedback from applicants proposing high-rise residential projects that the City's unit mix requirements would render their projects financially infeasible. This analysis evaluates and compares the development economics of hypothetical high-rise residential prototypes to the economics of mid-rise construction to understand the effect that unit mix requirements have on project feasibility.

Attachment 3

Development Scenarios

KMA has evaluated the development economics of five hypothetical development scenarios, including one base mid-rise scenario and four high-rise development scenarios. The high-rise scenarios differ in terms of unit mix and the distribution of the affordable housing units within the project. All scenarios provide the requisite percentage of affordable units.

As summarized in Exhibit 1, the scenarios are as follows:

- *Scenario 1* – Scenario 1 is a 7-story, 350-unit mid-rise rise apartment project with a unit mix that is consistent with the City's requirements. Scenario 1's construction type—five floors of wood frame Type III construction over a two-story podium—is representative of what is currently being built in Emeryville.

- *Scenario 2a* – Scenario 2a is a 48-story, 510-unit high-rise apartment project of Type I construction, with a unit mix that is consistent with the City's requirements.

- *Scenario 2b* – Scenario 2b is a 43-story, 510-unit high-rise apartment project of Type I construction. Scenario 2b assumes a modified unit mix with a lower percentage of two- and three-bedroom units (34%) than is permitted by the City's requirements.

- *Scenario 3a and Scenario 3b* are physically identical to Scenario 2a and Scenario 2b but assume that onsite affordable units are provided in the bottom two thirds of the building with the top third of the building reserved for market rate units. Current City policy requires that affordable units be distributed evenly throughout the building. Scenarios 3a and 3b are contingent on the City changing current policy to allow high-rise developments to reserve upper floors for market rate units. The City of San Francisco provides this option to high-rise developments to support feasibility.

Exhibit 1: Development Scenarios

	Scenario 1 Mid-Rise	Scenario 2a High-Rise	Scenario 2b High-Rise	Scenario 3a High-Rise	Scenario 3b High-Rise
Construction Type	Type III over IA	Type IA	Type IA	Type IA	Type IA
Stories	5 over 2	48	43	48	43
Gross Bldg. Area (sf)	479,871	725,968	655,589	725,968	655,589
Ground fl retail (sf)	20,000	20,000	20,000	20,000	20,000
Residential Units	350	510	510	510	510
Density (units/acre)	117	170	170	170	170
2-3 BR % of Units	52%	52%	34%	52%	34%
Average Unit Size	1,043	1,048	936	1,048	936
Affordable % of Units	14%	17%	17%	17%	17%
Affordable Distribution	All Floors	All Floors	All Floors	Bottom 2/3	Bottom 2/3
Community Benefits	1.7% CV	5.0% CV	5.0% CV	5.0% CV	5.0% CV

CV = Construction Valuation.

Physical parameters of development scenarios including building heights, building square footage, and unit sizes are based on a massing study prepared by Arnold Mammarella, Architecture + Consulting on behalf of the City of Emeryville. The share of affordable units and the level of community benefits reflect the City's development bonus policy, which requires projects seeking height, floor area, or density above the base zoning to earn bonus points through the provision of affordable housing and other community benefits. High-rise scenarios would require the maximum of 100 bonus points, assumed to be earned by providing 17% onsite affordable units and a community benefits payment of 5.0% of the construction valuation. The mid-rise scenario, which does not maximize the height, floor area, or density of the site, would require 37 bonus points, assumed to be earned by providing 14% onsite affordable units and a community benefits payment of 1.7% of the construction valuation.

Financial Feasibility Analysis

To assess the financial feasibility of the development scenarios, KMA has prepared a development pro forma for each scenario which models the costs to develop a new residential project, the rental income generated by the project upon completion, the magnitude of investment supported by the project's rental income, and the financial return or profit that the project will generate. For purposes of this analysis, the pro forma is organized as a residual land value analysis. Under this approach, the project's development costs (excluding land acquisition costs) are subtracted from the project's value to determine the magnitude of residual value available for land acquisition. The residual land value yielded by the pro forma analysis is then compared with recent land sale transactions in the Emeryville market area for property purchased for residential development to determine if the project's economics can afford to fund development costs and purchase land at current market rates. If the residual land value approximates current land sale transactions, then the analysis indicates that a project is likely to be financially feasible.

It should be noted that every project is different, every site is unique, and different developers have different investment return requirements. Because of these differences, a pro forma analysis of a hypothetical project provides an "order of magnitude" indicator of financial feasibility but not a precise measure of feasibility of a specific project.

Estimated Development Costs

Exhibit 2 provides a summary comparison of the estimated development costs of each scenario, excluding land acquisition costs.

Exhibit 2: Development Costs Per Square Foot (Excluding Land)

	Scenario 1 Mid-Rise	Scenario 2a High-Rise	Scenario 2b High-Rise	Scenario 3a High-Rise	Scenario 3b High-Rise
Direct Costs	$333/sf	$395/sf	$392/sf	$395/sf	$392/sf
Community Benefits Rqmt.[1]	$5/sf	$20/sf	$20/sf	$20/sf	$20/sf
Other Soft Costs	$118/sf	$140/sf	$141/sf	$140/sf	$141/sf
Total Costs, Ex. Land	$456/sf	$555/sf	$553/sf	$555/sf	$553/sf

[1] See page 3 for explanation of difference in community benefits requirements between mid-rise and high-rise scenarios.

As shown, the total estimated development cost of the mid-rise prototype is in the range of $455 per gross square foot of building area (excluding land). In comparison, the cost of high-rise prototypes approximates $555 per gross square foot of building area, or 22% more than the cost of mid-rise construction. The costs include direct construction costs and all indirect or soft costs of development such as architecture and engineering, governmental fees and permits, taxes, insurance, tenant improvements, financing, and developer overhead and administration.

Physical differences explain the cost variation among high-rise development scenarios. Scenario 2a is five stories taller than Scenario 2b, which is estimated to result in slightly higher direct construction costs based on estimates published by Marshall & Swift and RS Means. Scenario 2b includes smaller units than Scenario 2a, which results in higher soft costs per square foot for governmental fees, many of which are assessed on a per unit basis. Soft costs for retail tenant improvements are also higher on a square foot basis under Scenario 2b, because retail comprises a greater share of the building area under this scenario.

Estimated Rental Income

Estimated market rate apartment rents are informed by a survey of comparable projects (see attached Table 12) in the Emeryville market area. As shown in Exhibit 3, monthly rental rates in new mid-rise developments range from $3,165 for studio units to $5,485 for three-bedroom units. Assuming the City's target mix of unit sizes, the average monthly rental rate is $4,200 per unit, or $4.03 per square foot.

Exhibit 3: Rental Income Assumptions

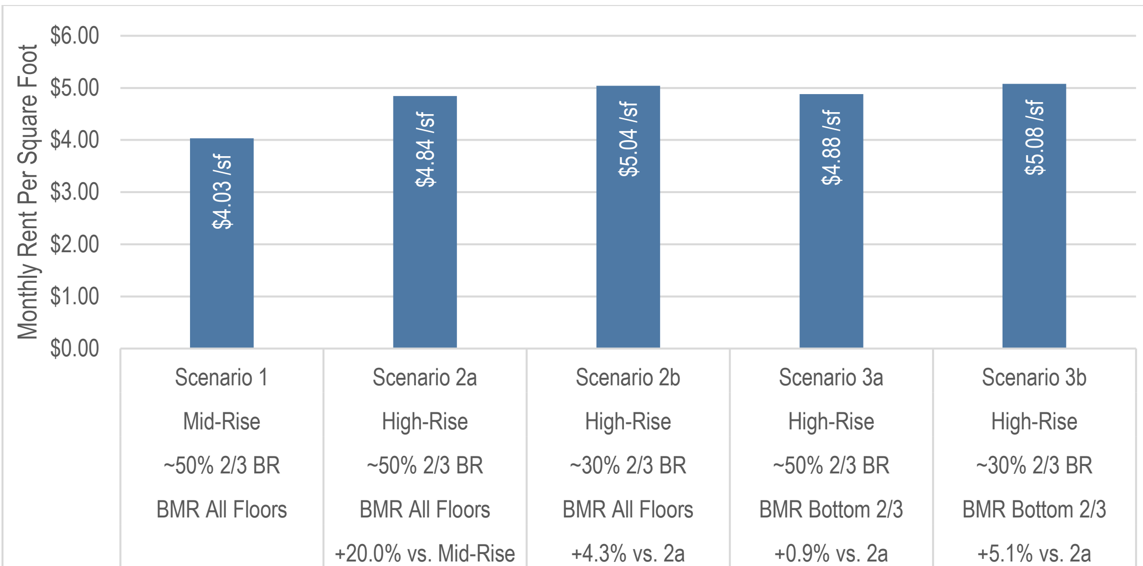
	Mid-Rise			High-Rise (Scenario 2a)		
	Unit Size	Monthly Rent	$/sf	Unit Size	Monthly Rent	$/sf
Residential						
Studio	548	$3,165	$5.78	608	$3,980	$6.55
1BR	792	$3,660	$4.62	817	$4,535	$5.55
2BR	1,228	$4,515	$3.68	1,222	$5,370	$4.39
3BR	1,535	$5,485	$3.57	1,416	$5,860	$4.14
Penthouse	n/a	n/a	n/a	2,052	$10,000	$4.87
Wtd. Average	1,041	$4,200	$4.03	1,049	$5,080	$4.84
Retail	20,000 sf		$3.33/sf	20,000 sf		$3.33/sf

Market rate units in high-rise projects are estimated to command a rent premium relative to mid-rise units of the same size and type. The rent premium for units on the first seven floors of high-rise projects is estimated to be 5% greater than the rents of similar mid-rise units. The rent premium is estimated to increase by 0.75% per floor for units located above the seventh floor due to their superior views. For example, the rent premium for a unit on the ninth floor of a high-rise development is estimated to be 6.5% (5% base premium plus 0.75% for each floor above seven). The rent premium for high-rise developments is based on analysis of recently built apartment towers in San Francisco.

As shown in Exhibit 3, with the high-rise rent premiums, it is estimated that monthly rental rates in a high-rise project would range from approximately $3,980 for studio units to $5,860 for three-bedroom units and $10,000 for penthouse units. The average blended monthly rental rate assuming the City's target mix of units would approximate $5,080 per unit or $4.84 per square foot. In summary, it is estimated that a high-rise project would command a 20% rental premium over mid-rise construction assuming the same mix of units.

Exhibit 4 summarizes the average market rate apartment rent per square foot estimated for each of the development scenarios, reflecting differences in unit mix, building type, and rent premiums.

Exhibit 4: Average Monthly Market Rate Apartment Rent Per Square Foot



As shown in the comparison of Scenario 2b to 2a, relaxing the unit mix requirement to permit only 30% two- and three-bedroom units (versus the City's target of 50% two- and three-bedroom units), increases the average rental rate by approximately 4.3%. And, as shown in the comparison of Scenario 3a to Scenario 2a, permitting the upper third of building floors to be dedicated to solely market rate units increases the average rent by 0.8% to 0.9%. Scenario 3b represents the combination of relaxing the unit mix requirement and restricting affordable units to the lower floor. As shown, the average rental rate is $5.08 per square foot, which is 5.1% more than the base rate for a high-rise project (Scenario 2a) and 25.1% higher than the base rate for a mid-rise project.

Warranted Investment, Residual Land Value, and Financial Returns

To calculate the developer investment warranted by each scenario, KMA first estimated the Net Operating Income (NOI), which is equal to the annual rental income minus operating expenses. The NOI is then divided by a blended 5.05% developer return on cost (ROC) to estimate the amount of investment (or cost) is warranted by the project's income. The ROC threshold of 5.05% reflects current investor return requirements for new multifamily apartment projects in the San Francisco Bay Area based on the returns generated by recently sold apartment properties with ground floor retail and San Francisco Bay apartment investor underwriting requirements published by Situs RERC, Integra Realty Resources, and CBRE.

Residual land value is calculated as the difference between the warranted investment of each scenario and the development costs other than land. The residual land value represents the amount a project can afford to pay for a development site while still achieving an industry standard return on cost (ROC) of 5.05%. Given that land costs reflect a smaller component of costs for a high-rise development than for a mid-rise project, we have also evaluated each scenario's estimated ROC assuming a land acquisition cost of $238 per square foot of land area, which is based on recent land sales for multifamily development in the market area.[1]

Exhibit 5 presents the estimated returns of each scenario, measured in terms of both return on cost (assuming a land acquisition cost of $238 per square foot) and residual land value (assuming a standard return on cost threshold of 5.05%). As shown, the mid-rise prototype (Scenario 1) is estimated to support a land value of $240 per square foot of land, which is slightly higher than the average price of recent transactions. Assuming the market average land price of $238 per square foot of land, it is estimated that the mid-rise project would yield a 5.06% return on cost, which is slightly higher than the estimated current industry standard threshold of 5.05%.

As shown, all of the high-rise scenarios are estimated to yield a lower return on cost or residual land value than the mid-rise scenario. Scenario 3b, which benefits from both a mix of smaller units and all market rate units on the top floors, is the top-performing high-rise scenario with an estimated 5.00% ROC or a residual land value of $220 per square foot of land area. It is followed by Scenario 2b, which also benefits from the mix of smaller units, with a supported land value of $191 per square foot or a ROC of 4.96%. The least profitable high-rise scenario is Scenario 2a, which reflects both the City's required mix of larger units and the City's standard policy that affordable units be distributed throughout a project. Scenario 2a's estimated ROC is 4.82% and its supported residual land value is $99 per square foot of land area.

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[1] Recent land sales are detailed in Table 9.

Exhibit 5: Developer Return on Cost, Based on Prevailing Land Prices

	Scenario 1 Mid-Rise	Scenario 2a High-Rise	Scenario 2b High-Rise	Scenario 3a High-Rise	Scenario 3b High-Rise
Annual NOI	$12.6M	$20.9M	$19.5M	$21.2M	$19.7M
Development Cost					
Before Land	$218.8M	$402.9M	$362.6M	$402.9M	$362.6M
Land @ $238/sf land	$31.1M	$31.1M	$31.1M	$31.1M	$31.1M
Total Cost, incl. Land	$249.9M	$434.0M	$393.7M	$434.0M	$393.7M
Return on Cost %	5.06%	4.82%	4.96%	4.88%	5.00%
Residual Land Value Assuming 5.05% ROC	$240/sf land	$99/sf land	$191/sf land	$135/sf land	$220/sf land

Summary of Findings and Conclusions

The findings of the pro forma analyses indicate that the rental income generated by a high-rise multifamily apartment project is likely to be sufficient to support 100% of a project's development costs excluding land acquisition costs, but it is not likely to be sufficient to yield a rate of return that is commensurate with current industry targets for multifamily rental projects. The primary driver of this conclusion is that current market rents are not sufficient to cover the cost of high-rise construction.

It is important to note that while projected returns are somewhat less than industry standards, the analysis does not indicate that developing a high-rise project is financially infeasible, even with all of the City's current policies. This is an analysis of a hypothetical project and the return requirements of specific projects and developers can vary significantly, depending on the sources of capital, the developer's / investor's overall business strategy, business segmentation, etc.

Another finding of the analysis is that the development economics of high-rise apartment projects could be significantly improved if the City modifies some of its regulations, including:

1) reducing the required percentage of two- and three-bedroom units; and
2) relaxing the requirement that affordable units be evenly distributed throughout the development.

With changes to these policies, it is estimated that the development economics of high-rise construction would approach the economics of mid-rise construction.

Technical Appendix

The pro forma analysis and supporting market data are provided in the attached Tables 1 through 16.

Pro Forma Analysis

Table 1	Pro Forma Summary
Table 2	Rental Pro Forma; Scenario 1
Table 3	Rental Pro Forma; Scenario 2a
Table 4	Rental Pro Forma; Scenario 2b
Table 5	Rental Pro Forma; Scenario 3a
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Supporting Market Data

Table 9	Emeryville and Nearby Residential Land Transactions
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Table 1
Pro Forma Summary
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

	Scenario 1 Mid-Rise ~50% 2/3 BR BMR All Floors Table 2	Scenario 2a High-Rise ~50% 2/3 BR BMR All Floors +5% Rent Premium Table 3	Scenario 2b High-Rise ~30% 2/3 BR BMR All Floors +5% Rent Premium Table 4	Scenario 3a High-Rise ~50% 2/3 BR BMR Bottom 2/3 +5% Rent Premium Table 5	Scenario 3b High-Rise ~30% 2/3 BR BMR Bottom 2/3 +5% Rent Premium Table 6
I. Development Program					
Construction Type	Type III	Type IA	Type IA	Type IA	Type IA
Stories	7	48	43	48	43
Density (du/acre)	117	170	170	170	170
Gross Building Area (GSF)	479,871	725,968	655,589	725,968	655,589
Residential Units	350	510	510	510	510
Average Unit Size (NSF)	1,043	1,048	936	1,048	936
Parking Ratio	0.8	0.7	0.7	0.7	0.7
Unit Mix					
Studio	9%	10%	19%	10%	19%
1BR	39%	38%	47%	38%	47%
2BR	37%	36%	27%	36%	27%
3BR	15%	15%	7%	15%	7%
	100%	100%	100%	100%	100%
II. Total Development Cost					
Total $	$218.8M	$402.9M	$362.6M	$402.9M	$362.6M
Per Unit	$625,000	$790,000	$711,000	$790,000	$711,000
Per GSF	$456	$555	$553	$555	$553
III. Income Assumptions					
Market Apartments					
Units (%)	301 (86%)	423 (83%)	423 (83%)	423 (83%)	423 (83%)
$/Unit	$4,200	$5,080	$4,725	$5,130	$4,765
$/SF	$4.03	$4.84	$5.04	$4.88	$5.08
BMR Apartments					
Units (%)	49 (14%)	87 (17%)	87 (17%)	87 (17%)	87 (17%)
$/Unit	$1,701	$1,690	$1,634	$1,690	$1,634
$/SF	$1.61	$1.62	$1.75	$1.63	$1.77
Retail					
$/SF (NNN)	$3.33	$3.33	$3.33	$3.33	$3.33
IV. Residual Land Value					
Supported Investment	$250.1M	$415.8M	$387.6M	$420.6M	$391.4M
(less) Development Cost	-$218.8M	-$402.9M	-$362.6M	-$402.9M	-$362.6M
Residual Land Value	$31.3M	$12.9M	$25.0M	$17.7M	$28.8M
$ Per Unit	$89,000	$25,000	$49,000	$35,000	$56,000
$ Per Land SF	$240	$99	$191	$136	$220

Table 2
Rental Pro Forma; Scenario 1
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

Program: Scenario 1

Site Area	130,680	SF
Stories	7	
Building Area		
Apartments (Net)	365,005	SF
Retail (Net)	20,000	SF
Common/Circ.	94,866	SF
Total (excl Pkg)	479,871	SF
Building Efficiency	80%	
Parking Spaces	283	
Parking Sq. Ft.	109,450	SF
Residential Units		
Apartments	350	
Average Unit Size	1,043	SF
Units/Acre	117	

Development Costs

	$/GSF	$/Unit	Total $	%Directs
Direct Costs				
Demo/ Sitework	$11	$15,600	$5,454,440	3%
Residential Construction	$283	$387,600	$135,661,945	85%
Non-Residential Construction	$11	$15,400	$5,400,000	3%
Parking	$27	$37,500	$13,134,000	8%
Total, Directs	$333	$456,100	$159,650,385	100%
Indirect Costs				
Fees & Permits (Table 6)	$35	$48,500	$16,970,293	11%
Retail Tenant Improvements	$2	$2,900	$1,000,000	1%
Other Soft Costs (incl. A&E)	$50	$68,400	$23,947,558	15%
Contingency	$17	$22,800	$7,982,519	5%
Total, Indirects	$104	$142,600	$49,900,370	31%
Construction Financing	$19	$26,600	$9,296,195	6%
Total Development Cost	**$456**	**$625,300**	**$218,846,950**	**137%**

Rent Schedule

	Units	%	NSF	$/Unit	$/SF
Market					
0BR	28		548	$3,165	$5.78
1BR	117		792	$3,660	$4.62
2BR	111		1,228	$4,515	$3.67
3BR	45		1,535	$5,485	$3.57
Subtotal	*301*	*86%*	*1,041*	*$4,200*	*$4.03*
Moderate					
0BR	2		548	$2,018	$3.68
1BR	8		792	$2,295	$2.90
2BR	8		1,228	$2,542	$2.07
3BR	3		1,535	$2,794	$1.82
Subtotal	*21*	*6%*	*1,041*	*$2,434*	*$2.34*
Low					
0BR	1		548	$1,040	$1.90
1BR	7		792	$1,178	$1.49
2BR	6		1,228	$1,285	$1.05
3BR	3		1,535	$1,398	$0.91
Subtotal	*17*	*5%*	*1,063*	*$1,246*	*$1.17*
Very Low					
0BR	1		548	$845	$1.54
1BR	4		792	$955	$1.21
2BR	4		1,228	$1,034	$0.84
3BR	2		1,535	$1,118	$0.73
Subtotal	*11*	*3%*	*1,063*	*$1,003*	*$0.94*
All BMR	*49*	*14%*	*1,054*	*$1,701*	*$1.61*
All Units	*350*	*100%*	*1,043*	*$3,850*	*$3.69*

Operating Income

			Total $	%Gross
Residential				
Gross Rent/Year - Market	$4,200	/unit/mo	$15,170,400	90%
Gross Rent/Year - BMR	$1,701	/unit/mo	$1,000,092	6%
Misc. Income @	*$900*	/mkt du	$270,900	2%
Parking Income @	*$1,200*	/space	$339,600	2%
(Less) Vacancy @	*5%*	gross	-$839,050	-5%
(Less) Res OpEx @	*$5,500*	/du	-$1,925,000	-11%
(Less) Res Property Taxes	*$5,600*	/du	-$1,960,000	-12%
(Less) Pkg. OpEx @	*25%*	gross	-$84,900	-1%
NOI - Residential			$11,972,042	71%
Retail				
Gross Rent/Year	*$3.33*	/SF	$799,200	100%
(less) Vacancy @	10%		-$79,920	-10%
(less) OpEx @	*$2.50*	/SF	-$50,000	-6%
NOI - Retail			$669,280	84%
Total NOI			$12,641,322	72%

Residual Land Value

			Total $	$/Unit
Supported Investment				
Residential @	5.00%	ROC	$239,440,848	$684K
Retail @	6.25%	ROC	$10,708,480	$31K
Total Supported Investment			$250,149,328	$715K
(less) Total Development Cost			-$218,846,950	-$625K
Residual Land Value (Rounded)			**$31,300,000**	**$89K**
$/Land SF			$240	

Table 3
Rental Pro Forma; Scenario 2a
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

Program: Scenario 2a		
Site Area	130,680	SF
Stories	48	
Building Area		
Apartments (Net)	534,398	SF
Retail (Net)	20,000	SF
Common/Circ.	171,570	SF
Total (excl Pkg)	725,968	SF
Building Efficiency	76%	
Parking Spaces	354	
Parking Sq. Ft.	120,687	SF
Residential Units		
Apartments	510	
Average Unit Size	1,048	SF
Units/Acre	170	

Development Costs	$/GSF	$/Unit	Total $	%Directs
Direct Costs				
Demo/ Sitework	$8	$10,700	$5,454,440	2%
Residential Construction	$360	$512,800	$261,543,495	91%
Non-Residential Construction	$7	$10,600	$5,400,000	2%
Parking	$20	$28,400	$14,482,440	5%
Total, Directs	$395	$562,500	$286,880,375	100%
Indirect Costs				
Fees & Permits (Table 6)	$51	$72,600	$37,046,521	13%
Retail Tenant Improvements	$1	$2,000	$1,000,000	0%
Other Soft Costs (incl. A&E)	$59	$84,400	$43,032,056	15%
Contingency	$20	$28,100	$14,344,019	5%
Total, Indirects	$131	$187,100	$95,422,596	33%
Construction Financing	$28	$40,300	$20,547,590	7%
Total Development Cost	**$555**	**$789,900**	**$402,850,561**	**140%**

Rent Schedule	Units	%	NSF	$/Unit	$/SF
Market					
0BR	42		608	$3,980	$6.54
1BR	163		817	$4,535	$5.55
2BR	154		1,222	$5,370	$4.39
3BR	54		1,416	$5,860	$4.14
3BR PH	10		2,052	$9,998	$4.87
Subtotal	*423*	*83%*	*1,049*	*$5,080*	*$4.84*
Moderate					
0BR	4		608	$2,018	$3.32
1BR	14		817	$2,295	$2.81
2BR	13		1,222	$2,542	$2.08
3BR	5		1,416	$2,794	$1.97
3BR PH	1		2,052	$2,794	$1.36
Subtotal	*37*	*7%*	*1,051*	$2,433	*$2.31*
Low					
0BR	3		608	$1,040	$1.71
1BR	12		817	$1,178	$1.44
2BR	11		1,222	$1,285	$1.05
3BR	4		1,416	$1,398	$0.99
Subtotal	*30*	*6%*	*1,024*	*$1,233*	*$1.20*
Very Low					
0BR	2		608	$845	$1.39
1BR	7		817	$955	$1.17
2BR	8		1,222	$1,034	$0.85
3BR	3		1,416	$1,118	$0.79
Subtotal	*20*	*4%*	*1,048*	*$1,000*	*$0.95*
All BMR	*87*	*17%*	*1,041*	*$1,690*	*$1.62*
All Units	*510*	*100%*	*1,048*	*$4,502*	*$4.30*

Operating Income			Total $	%Gross
Residential				
Gross Rent/Year - Market	$5,080	/unit/mo	$25,786,080	91%
Gross Rent/Year - BMR	$1,690	/unit/mo	$1,763,952	6%
Misc. Income @	*$900*	/mkt du	$380,700	1%
Parking Income @	*$1,200*	/space	$424,800	1%
(Less) Vacancy @	*5%*	gross	-$1,417,777	-5%
(Less) Res OpEx @	*$5,800*	/du	-$2,958,000	-10%
(Less) Res Property Taxes	*$7,100*	/du	-$3,621,000	-13%
(Less) Pkg. OpEx @	*25%*	gross	-$106,200	0%
NOI - Residential			$20,252,555	71%
Retail				
Gross Rent/Year	*$3.33*	/SF	$799,200	100%
(less) Vacancy @	10%		-$79,920	-10%
(less) OpEx @	*$2.50*	/SF	-$50,000	-6%
NOI - Retail			$669,280	84%
Total NOI			$20,921,835	72%

Residual Land Value			Total $	$/Unit
Supported Investment				
Residential @	5.00%	ROC	$405,051,108	$794K
Retail @	6.25%	ROC	$10,708,480	$21K
Total Supported Investment			$415,759,588	$815K
(less) Total Development Cost			-$402,850,561	-$790K
Residual Land Value (Rounded)			**$12,900,000**	**$25K**
$/Land SF			$99	

Table 4
Rental Pro Forma; Scenario 2b
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

Program: Scenario 2b

Site Area	130,680	SF
Stories	43	
Building Area		
Apartments (Net)	477,571	SF
Retail (Net)	20,000	SF
Common/Circ.	158,018	SF
Total (excl Pkg)	655,589	SF
Building Efficiency	76%	
Parking Spaces	354	
Parking Sq. Ft.	120,687	SF
Residential Units		
Apartments	510	
Average Unit Size	936	SF
Units/Acre	170	

Development Costs

	$/GSF	$/Unit	Total $	%Directs
Direct Costs				
Demo/ Sitework	$8	$10,700	$5,454,440	2%
Residential Construction	$354	$454,900	$231,989,985	90%
Non-Residential Construction	$8	$10,600	$5,400,000	2%
Parking	$22	$28,400	$14,482,440	6%
Total, Directs	$393	$504,600	$257,326,865	100%
Indirect Costs				
Fees & Permits (Table 6)	$52	$67,300	$34,320,747	13%
Retail Tenant Improvements	$2	$2,000	$1,000,000	0%
Other Soft Costs (incl. A&E)	$59	$75,700	$38,599,030	15%
Contingency	$20	$25,200	$12,866,343	5%
Total, Indirects	$132	$170,200	$86,786,120	34%
Construction Financing	$28	$36,300	$18,494,998	7%
Total Development Cost	**$553**	**$711,000**	**$362,607,982**	**141%**

Rent Schedule

	Units	%	NSF	$/Unit	$/SF
Market					
0BR	81		568	$3,690	$6.49
1BR	198		827	$4,490	$5.43
2BR	114		1,209	$5,265	$4.35
3BR	20		1,418	$5,690	$4.01
3BR PH	10		2,052	$9,709	$4.73
Subtotal	*423*	*83%*	*937*	*$4,725*	*$5.04*
Moderate					
0BR	7		568	$2,018	$3.55
1BR	17		827	$2,295	$2.78
2BR	10		1,209	$2,542	$2.10
3BR	2		1,418	$2,794	$1.97
3BR PH	1		2,052	$2,794	$1.36
Subtotal	*37*	*7%*	*946*	*$2,350*	*$2.48*
Low					
0BR	6		568	$1,040	$1.83
1BR	14		827	$1,178	$1.42
2BR	8		1,209	$1,285	$1.06
3BR	2		1,418	$1,398	$0.99
Subtotal	*30*	*6%*	*916*	*$1,194*	*$1.30*
Very Low					
0BR	3		568	$845	$1.49
1BR	10		827	$955	$1.15
2BR	6		1,209	$1,034	$0.86
3BR	1		1,418	$1,118	$0.79
Subtotal	*20*	*4%*	*932*	*$970*	*$1.04*
All BMR	*87*	*17%*	*933*	*$1,634*	*$1.75*
All Units	*510*	*100%*	*936*	*$4,198*	*$4.48*

Operating Income

			Total $	%Gross
Residential				
Gross Rent/Year - Market	$4,725	/unit/mo	$23,984,100	91%
Gross Rent/Year - BMR	$1,634	/unit/mo	$1,705,896	6%
Misc. Income @	*$900*	/mkt du	$380,700	1%
Parking Income @	*$1,200*	/space	$424,800	2%
(Less) Vacancy @	*5%*	gross	-$1,324,775	-5%
(Less) Res OpEx @	*$5,800*	/du	-$2,958,000	-11%
(Less) Res Property Taxes	*$6,400*	/du	-$3,264,000	-12%
(Less) Pkg. OpEx @	*25%*	gross	-$106,200	0%
NOI - Residential			$18,842,521	71%
Retail				
Gross Rent/Year	*$3.33*	/SF	$799,200	100%
(less) Vacancy @	10%		-$79,920	-10%
(less) OpEx @	*$2.50*	/SF	-$50,000	-6%
NOI - Retail			$669,280	84%
Total NOI			$19,511,801	71%

Residual Land Value

			Total $	$/Unit
Supported Investment				
Residential @	5.00%	ROC	$376,850,424	$739K
Retail @	6.25%	ROC	$10,708,480	$21K
Total Supported Investment			$387,558,904	$760K
(less) Total Development Cost			-$362,607,982	-$711K
Residual Land Value (Rounded)			**$25,000,000**	**$49K**
$/Land SF			$191	

Table 5
Rental Pro Forma; Scenario 3a
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

Program: Scenario 3a		
Site Area	130,680	SF
Stories	48	
Building Area		
Apartments (Net)	534,398	SF
Retail (Net)	20,000	SF
Common/Circ.	171,570	SF
Total (excl Pkg)	725,968	SF
Building Efficiency	76%	
Parking Spaces	354	
Parking Sq. Ft.	120,687	SF
Residential Units		
Apartments	510	
Average Unit Size	1,048	SF
Units/Acre	170	

Development Costs	$/GSF	$/Unit	Total $	%Directs
Direct Costs				
Demo/ Sitework	$8	$10,700	$5,454,440	2%
Residential Construction	$360	$512,800	$261,543,495	91%
Non-Residential Construction	$7	$10,600	$5,400,000	2%
Parking	$20	$28,400	$14,482,440	5%
Total, Directs	$395	$562,500	$286,880,375	100%
Indirect Costs				
Fees & Permits (Table 6)	$51	$72,600	$37,046,521	13%
Retail Tenant Improvements	$1	$2,000	$1,000,000	0%
Other Soft Costs (incl. A&E)	$59	$84,400	$43,032,056	15%
Contingency	$20	$28,100	$14,344,019	5%
Total, Indirects	$131	$187,100	$95,422,596	33%
Construction Financing	$28	$40,300	$20,547,590	7%
Total Development Cost	**$555**	**$789,900**	**$402,850,561**	**140%**

Rent Schedule	Units	%	NSF	$/Unit	$/SF
Market					
0BR	42		608	$3,985	$6.56
1BR	163		817	$4,580	$5.61
2BR	154		1,222	$5,420	$4.44
3BR	53		1,416	$5,895	$4.16
3BR PH	11		2,052	$9,998	$4.87
Subtotal	*423*	*83%*	*1,051*	*$5,130*	*$4.88*
Moderate					
0BR	4		608	$2,018	$3.32
1BR	14		817	$2,295	$2.81
2BR	13		1,222	$2,542	$2.08
3BR	6		1,416	$2,794	$1.97
3BR PH	0		2,052	$2,794	$1.36
Subtotal	*37*	*7%*	*1,034*	*$2,433*	*$2.35*
Low					
0BR	3		608	$1,040	$1.71
1BR	12		817	$1,178	$1.44
2BR	11		1,222	$1,285	$1.05
3BR	4		1,416	$1,398	$0.99
Subtotal	*30*	*6%*	*1,024*	*$1,233*	*$1.20*
Very Low					
0BR	2		608	$845	$1.39
1BR	7		817	$955	$1.17
2BR	8		1,222	$1,034	$0.85
3BR	3		1,416	$1,118	$0.79
Subtotal	*20*	*4%*	*1,048*	*$1,000*	*$0.95*
All BMR	*87*	*17%*	*1,034*	*$1,690*	*$1.63*
All Units	*510*	*100%*	*1,048*	*$4,543*	*$4.34*

Operating Income			Total $	%Gross
Residential				
Gross Rent/Year - Market	$5,130	/unit/mo	$26,039,880	91%
Gross Rent/Year - BMR	$1,690	/unit/mo	$1,763,952	6%
Misc. Income @	*$900*	/mkt du	$380,700	1%
Parking Income @	*$1,200*	/space	$424,800	1%
(Less) Vacancy @	*5%*	gross	-$1,430,467	-5%
(Less) Res OpEx @	*$5,800*	/du	-$2,958,000	-10%
(Less) Res Property Taxes	*$7,100*	/du	-$3,621,000	-13%
(Less) Pkg. OpEx @	*25%*	gross	-$106,200	0%
NOI - Residential			$20,493,665	72%
Retail				
Gross Rent/Year	*$3.33*	/SF	$799,200	100%
(less) Vacancy @	10%		-$79,920	-10%
(less) OpEx @	*$2.50*	/SF	-$50,000	-6%
NOI - Retail			$669,280	84%
Total NOI			$21,162,945	72%

Residual Land Value			Total $	$/Unit
Supported Investment				
Residential @	5.00%	ROC	$409,873,308	$804K
Retail @	6.25%	ROC	$10,708,480	$21K
Total Supported Investment			$420,581,788	$825K
(less) Total Development Cost			-$402,850,561	-$790K
Residual Land Value (Rounded)			**$17,700,000**	**$35K**
$/Land SF			$136	

Table 6
Rental Pro Forma; Scenario 3b
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

Program: Scenario 3b		
Site Area	130,680	*SF*
Stories	43	
Building Area		
Apartments (Net)	477,571	*SF*
Retail (Net)	20,000	*SF*
Common/Circ.	158,018	*SF*
Total (excl Pkg)	655,589	*SF*
Building Efficiency	76%	
Parking Spaces	354	
Parking Sq. Ft.	120,687	*SF*
Residential Units		
Apartments	510	
Average Unit Size	936	*SF*
Units/Acre	170	

Rent Schedule	Units	%	NSF	$/Unit	$/SF
Market					
0BR	81		568	$3,695	$6.50
1BR	198		827	$4,530	$5.48
2BR	114		1,209	$5,310	$4.40
3BR	19		1,418	$5,685	$4.01
3BR PH	11		2,052	$9,709	$4.73
Subtotal	*423*	*83%*	*939*	*$4,765*	*$5.08*
Moderate					
0BR	7		568	$2,018	$3.55
1BR	17		827	$2,295	$2.78
2BR	10		1,209	$2,542	$2.10
3BR	3		1,418	$2,794	$1.97
3BR PH	0		2,052	$2,794	$1.36
Subtotal	*37*	*7%*	*929*	*$2,350*	*$2.53*
Low					
0BR	6		568	$1,040	$1.83
1BR	14		827	$1,178	$1.42
2BR	8		1,209	$1,285	$1.06
3BR	2		1,418	$1,398	$0.99
Subtotal	*30*	*6%*	*916*	*$1,194*	*$1.30*
Very Low					
0BR	3		568	$845	$1.49
1BR	10		827	$955	$1.15
2BR	6		1,209	$1,034	$0.86
3BR	1		1,418	$1,118	$0.79
Subtotal	*20*	*4%*	*932*	*$970*	*$1.04*
All BMR	*87*	*17%*	*925*	*$1,634*	*$1.77*
All Units	*510*	*100%*	*936*	*$4,231*	*$4.52*

Development Costs	$/GSF	$/Unit	Total $	%Directs
Direct Costs				
Demo/ Sitework	$8	$10,700	$5,454,440	2%
Residential Construction	$354	$454,900	$231,989,985	90%
Non-Residential Construction	$8	$10,600	$5,400,000	2%
Parking	$22	$28,400	$14,482,440	6%
Total, Directs	$393	$504,600	$257,326,865	100%
Indirect Costs				
Fees & Permits (Table 6)	$52	$67,300	$34,320,747	13%
Retail Tenant Improvements	$2	$2,000	$1,000,000	0%
Other Soft Costs (incl. A&E)	$59	$75,700	$38,599,030	15%
Contingency	$20	$25,200	$12,866,343	5%
Total, Indirects	$132	$170,200	$86,786,120	34%
Construction Financing	$28	$36,300	$18,494,998	7%
Total Development Cost	**$553**	**$711,000**	**$362,607,982**	**141%**

Operating Income			Total $	%Gross
Residential				
Gross Rent/Year - Market	$4,765	*unit/mo*	$24,187,140	91%
Gross Rent/Year - BMR	$1,634	*unit/mo*	$1,705,896	6%
Misc. Income @	*$900*	*/mkt du*	$380,700	1%
Parking Income @	*$1,200*	*/space*	$424,800	2%
(Less) Vacancy @	*5%*	*gross*	-$1,334,927	-5%
(Less) Res OpEx @	*$5,800*	*/du*	-$2,958,000	-11%
(Less) Res Property Taxes	*$6,400*	*/du*	-$3,264,000	-12%
(Less) Pkg. OpEx @	*25%*	*gross*	-$106,200	0%
NOI - Residential			$19,035,409	71%
Retail				
Gross Rent/Year	*$3.33*	*/SF*	$799,200	100%
(less) Vacancy @	10%		-$79,920	-10%
(less) OpEx @	*$2.50*	*/SF*	-$50,000	-6%
NOI - Retail			$669,280	84%
Total NOI			$19,704,689	72%

Residual Land Value			Total $	$/Unit
Supported Investment				
Residential @	5.00%	*ROC*	$380,708,184	$746K
Retail @	6.25%	*ROC*	$10,708,480	$21K
Total Supported Investment			$391,416,664	$767K
(less) Total Development Cost			-$362,607,982	-$711K
Residual Land Value (Rounded)			**$28,800,000**	**$56K**
$/Land SF			$220	

Table 7
Development Fees, Permits, and Community Benefits
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

			Scenario 1 Table 2	Scenario 2a Table 3	Scenario 2b Table 4
Building Valuation (Direct Costs)			$159,650,385	$286,880,375	$257,326,865
Housing Units			350	510	510
Estimated by Building Division					
Building Permit Fee			$1,277,203	$2,295,043	$2,058,615
Plan Review Fee			$830,182	$1,491,778	$1,338,100
Energy Review Fee			$159,650	$286,880	$257,327
Electrical Permit Fee			$255,441	$459,009	$411,723
Plumbing Permit Fee			$229,897	$413,108	$370,551
Mechanical Permit Fee			$217,125	$390,157	$349,965
S.M.I.P.			$44,702	$80,327	$72,052
Microfiche			$12,772	$22,950	$20,586
Fire Department Fees			$510,881	$918,017	$823,446
Sewer Connection Fees			$481,250	$701,250	$701,250
Transportation Facility Fees			$705,400	$980,600	$980,600
School Fees			$1,700,004	$2,687,819	$2,421,082
Art In Public Places			$829,640	$1,465,166	$1,317,213
Technology Fee			$159,650	$286,880	$257,327
Building Standards Commision Fee			$6,387	$11,476	$10,294
General Plan Maintenance Fee			$798,252	$1,434,402	$1,286,634
Parks and Recreation Fee			$1,438,800	$2,076,240	$2,076,240
Subtotal			$9,657,236	$16,001,102	$14,753,003
Additional Fees/ Comm Benefits					
Comm. Benefits: Tower	5.00%		$0	$14,344,019	$12,866,343
Comm. Benefits: Midrise	1.70%		$2,714,057	$0	$0
EBMUD: Water	$10,530	*/du*	$3,685,500	$5,370,300	$5,370,300
EBMUD: Sewer	$2,610	*/du*	$913,500	$1,331,100	$1,331,100
			$7,313,057	$21,045,419	$19,567,743
Total Fees, Permits & Community Benefits			**$16,970,293**	**$37,046,521**	**$34,320,747**

Table 8
Key Pro Forma Assumptions
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

Development Costs			**Income/Revenues**		
Direct Construction Costs*			Base Market Rents	Table 12	
Apartments: Type III	$295	/GSF	Studio	$5.78	/NSF
Apartments: Type I	$365	/GSF	1BR	$4.62	/NSF
Retail (Core & Shell)	$270	/GSF	2BR	$3.67	/NSF
Parking, Above Grade	$120	/GSF	3BR (1,400 sf)	$3.57	/NSF
Demolition	$20	/GSF	Large 3BR	$3.57	/NSF
Site Work	$35	/SF site	Tower Premium	0.75%	/fl above 7
Open Space	included	above			
			BMR Rents	Table 10	
Indirect Construction Costs					
Construction Contingency	5%	of directs	Nonresidential Rents	Table 11	
Retail Tenant Improvements	$50	/NSF	Retail (NNN)	$3.33	/SF/mo
Impact Fees	Table 6				
Other Soft Costs (incl A&E)	15%	of directs	Parking & Misc. Income		
			Parking Income	$100	/space/mo
Financing			Miscellaneous Income	$75	/mkt du/mo
Loan-to-Cost	65%	LTC			
Interest Rate	5.0%	/year			
Points and Fees	1%	loan			
Loan Term- Type III	24	months			
Loan Term - Type I	30	months			
Avg Outstanding Balance	55%	loan			
Investment Thresholds			**Operating Expenses**		
Stabilized Return on Cost (ROC)			Residential Vacancy	5%	
Apartments	5.00%	ROC	Non-Residential Vacancy	10%	
Retail	6.25%	ROC			
			Apartment OpEx: Mid-Rise	$5,500	per unit
			Apartment OpEx: Tower	$5,800	per unit
			Parking OpEx	25%	of gross
			Retail OpEx	$2.50	/net SF/yr.
*Construction Types:			Residential Property Tax		
Type I = Concrete or steel			Property Tax Rate	1.11%	tax
Type III = Wood frame over podium					

Table 9
Recent Emeryville and Nearby Residential Land Transactions
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**
Source: Costar, RealQuest

	Acres	Land SF	Est. Units[1]	Est. Density[1]	Price ($M)[2]	Sale Year	$/SF Land	$/Unit
Emeryville								
6330 Christie Ave (Avalon D)	1.5	66,168	223	147	$22.0	2016	$332	$99,000
6251 Shellmound St (Avalon C)	0.5	22,173	66	130	$7.0	2018	$316	$106,000
3637 Adeline St (Adeline Springs)[3]	0.3	12,632	33	114	$1.5	2016	$115	$44,000
Weighted Average							*$302*	*$95,000*
Oakland								
24th & Harrison (tower)	2.3	99,893	400	174	$43.5	2018	$435	$109,000
451 28th St	0.3	11,761	40	148	$4.0	2018	$340	$100,000
1518-1530 MLK Jr Way	0.5	23,050	140	265	$7.0	2018	$302	$50,000
2400 Valdez	1.1	47,045	225	208	$11.8	2016	$251	$52,000
915 Fallon St	0.2	10,454	58	242	$2.5	2017	$239	$43,000
2820 & 2855 Broadway	1.1	48,443	218	196	$11.5	2016	$237	$53,000
58 Vernon St	0.2	7,405	9	53	$1.7	2017	$227	$186,000
5100-5132 Telegraph Ave	1.7	73,181	204	121	$15.5	2017	$211	$76,000
2970 Summit St	0.1	4,792	8	73	$0.9	2017	$198	$119,000
MacArthur BART Parcel A&C	2.1	93,000	385	180	$17.2	2016	$185	$45,000
391 40th St	0.3	14,375	38	115	$2.5	2018	$176	$67,000
1429 Alice St	0.4	19,166	79	180	$3.2	2017	$167	$41,000
2805 Park Blvd (east of lake)	0.3	12,197	20	71	$1.5	2017	$119	$73,000
1100 Clay St (purch. from City)	0.7	30,056	288	417	$3.4	2018	$111	$12,000
550 27th St	0.3	14,375	40	121	$1.5	2016	$104	$38,000
Weighted Average							*$250*	*$59,000*
Less Than 300 du/acre							*$213*	*$55,000*
Berkeley								
2190 Shattuck (tower)	0.5	19,680	274	606	$23.0	2015	$1,169	$84,000
1951 Shattuck (tower - option value)	0.4	17,424	156	390	$14.0	2018	$803	$90,000
2509 Haste St (student; units = BRs)	0.5	21,928	254	505	$9.0	2018	$410	$35,000
2720 San Pablo Ave (frmly. 80 du/ac)	0.2	9,583	39	177	$1.4	2016	$146	$36,000
1740 San Pablo Ave (asking $360/sf)	0.3	14,375	52	158	$1.9	2016	$134	$37,000
Weighted Average							*$594*	*$64,000*
Less Than 300 du/acre							*$139*	*$37,000*
Weighted Average All Areas			*23*	*transactions*			*$299*	*$64,000*
Less Than 300 du/acre			*19*	*transactions*			*$262*	*$69,000*
Excluding Highest and Lowest Transactions			*17*	*transactions*			*$231*	*$62,000*
2017 and 2018 only			*9*	*transactions*			*$238*	*$69,000*
2018 only			*3*	*transactions*			*$315*	*$73,000*

[1] Based on development proposals.
[2] Mixed use projects contain commercial uses that have not been discounted from the land value.
[3] Developer is considering financing the project as an affordable housing development, per recent CUP extension request.

Table 10
BMR Residential Rent Assumptions
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**
Source: City of Emeryville

Unit Size	0BR	1BR	2BR	3BR
Occupancy	1 person	2 person	3 person	4 person
Area Median Income	$73,100	$83,500	$93,950	$104,400
Moderate: 110% AMI				
Gross Affordable Rent	$2,151	$2,457	$2,765	$3,072
(less) Utility Allowance*	-$133	-$162	-$223	-$278
Net Affordable Rent	$2,018	$2,295	$2,542	$2,794
Low: 60% AMI				
Gross Affordable Rent	$1,173	$1,340	$1,508	$1,676
(less) Utility Allowance*	-$133	-$162	-$223	-$278
Net Affordable Rent	$1,040	$1,178	$1,285	$1,398
Very Low: 50% AMI				
Gross Affordable Rent	$978	$1,117	$1,257	$1,396
(less) Utility Allowance*	-$133	-$162	-$223	-$278
Net Affordable Rent	$845	$955	$1,034	$1,118
* Utility Allowance				
Heating - Electric	$21	$21	$28	$39
Cooking - Electric	$3	$5	$6	$7
Hot Water - Electric	$25	$28	$54	$72
Water	$33	$47	$60	$73
Sewer	$24	$24	$24	$24
Electric - Other	$27	$37	$51	$63
	$133	$162	$223	$278

Table 11
Retail Rent Assumptions
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**
Source: Costar, LoopNet

Retail Project	Sq. Ft.	$/ SF	Comments
PRO FORMA ASSUMPTION			
All Scenarios		$3.33 NNN	
EMERYVILLE COMPS			
6363 Christie Ave			Built 1984
GF Retail	4,903	$3.00 NNN	Emeryville submarket
BERKELEY COMPS			
The Aquatic			Built 2018
GF Retail 1	4,134	$3.33 NNN	SW Berkeley submarket
GF Retail 3	9,268	$3.33 NNN	
OAKLAND COMPS			
Idora			Built 2017
GF Retail	870	$3.00 NNN	Shafter submarket
Fourth Street East			Built 2017
GF Retail	2,166	$2.75 NNN	Jack London submarket

Table 12
Market Rate Residential Rent Assumptions
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**
Source: Costar, apartment websites

Rental Project	Unit	Average Sq. Ft.	Rent /Month	$/ SF
PRO FORMA ASSUMPTION				
Base Rent Before Tower/ View Premiums	Studio	548	$3,165	$5.78
	1BR	792	$3,660	$4.62
	2BR	1,228	$4,515	$3.67
	3BR	1,534	$5,485	$3.57
	All	1,041	$4,200	$4.03

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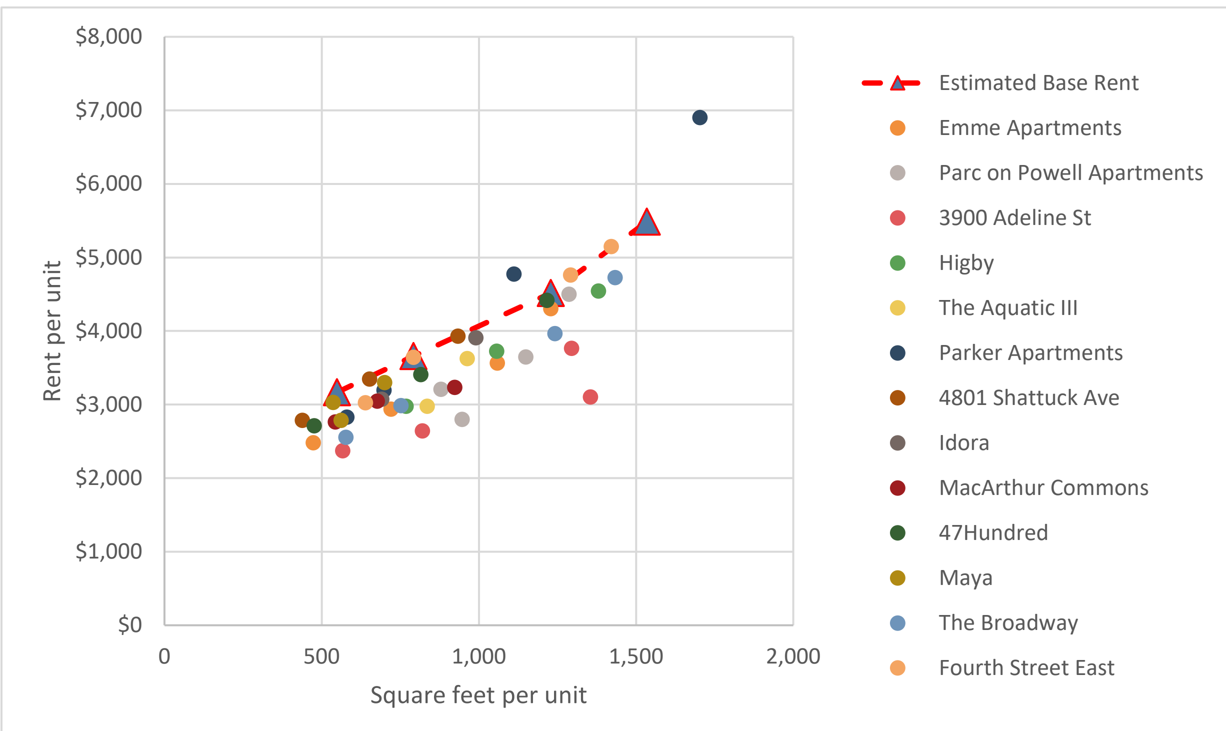

Table 12
Market Rate Residential Rent Assumptions
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

Source: Costar, apartment websites

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Rental Project	Unit	Average Sq. Ft.	Rent /Month	$/ SF
<u>EMERYVILLE COMPS</u>				
Emme Apartments				
6350 Christie Ave	Studio	473	$2,479	$5.24
Emeryville Submarket	1BR	720	$2,938	$4.08
Year Built: 2015	2BR	1,058	$3,561	$3.37
Floors: 8	3BR	1,228	$4,303	$3.50
Units: 190	All	802	$3,141	$3.92
Parc on Powell Apartments				
1333 Powell St	Studio	946	$2,798	$2.96
Emeryville Submarket	1BR	879	$3,207	$3.65
Year Built: 2015	2BR	1,149	$3,647	$3.17
Floors: 4	3BR	1,286	$4,498	$3.50
Units: 173	All	987	$3,374	$3.42
3900 Adeline St				
Longfellow Submarket	Studio	567	$2,369	$4.18
Year Built: 2016	1BR	820	$2,639	$3.22
Floors: 3	2BR	1,355	$3,103	$2.29
Units: 101	3BR	1,295	$3,761	$2.90
	All	922	$2,777	$3.01

Table 12
Market Rate Residential Rent Assumptions
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**
Source: Costar, apartment websites

Rental Project	Unit	Average Sq. Ft.	Rent /Month	$/ SF
<u>BERKELEY COMPS</u>				
Higby				
3015 San Pablo Ave	1BR	768	$2,974	$3.87
SW Berkeley Submarket	2BR	1,056	$3,724	$3.53
Year Built: 2015	3BR	1,380	$4,541	$3.29
Floors: 5	All	870	$3,263	$3.75
Units: 98				
The Aquatic III				
2010 5th St	1BR	835	$2,973	$3.56
SW Berkeley Submarket	2BR	963	$3,625	$3.76
Year Built: 2018	All	873	$3,167	$3.63
Floors: 5				
Units: 152				
Parker Apartments				
2038 Parker St	Studio	580	$2,825	$4.87
S. Berkeley Submarket	1BR	698	$3,193	$4.57
Year Built: 2016	2BR	1,111	$4,770	$4.29
Floors: 5	3BR	1,703	$6,902	$4.05
Units: 155	All	709	$3,267	$4.61
<u>OAKLAND COMPS</u>				
4801 Shattuck Ave				
Temescal Submarket	Studio	438	$2,782	$6.35
Year Built: 2017	1BR	652	$3,345	$5.13
Floors: 5	2BR	933	$3,926	$4.21
Units: 43	All	628	$3,256	$5.18
Idora				
5239 Claremont Ave	1BR	691	$3,071	$4.44
Shafter Submarket	2BR	990	$3,907	$3.95
Year Built: 2017	All	863	$3,552	$4.12
Floors: 5				
Units: 33				

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Table 12
Market Rate Residential Rent Assumptions
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**
Source: Costar, apartment websites

Rental Project	Unit	Average Sq. Ft.	Rent /Month	$/ SF
OAKLAND, CONT.				
MacArthur Commons				
539 39th St	Studio	543	$2,762	$5.09
Mosswood Submarket	1BR	677	$3,043	$4.49
Year Built: 2018	2BR	923	$3,231	$3.50
Floors: 6	All	707	$3,039	$4.30
Units: 385				
47Hundred				
4700 Telegraph Ave	Studio	476	$2,710	$5.69
Temescal Submarket	1BR	815	$3,404	$4.18
Year Built: 2019	2BR	1,216	$4,416	$3.63
Floors: 5	All	743	$3,271	$4.40
Units: 48				
Maya				
4045 Broadway	Studio	536	$3,028	$5.65
Piedmont Submarket	1BR	562	$2,783	$4.95
Year Built: 2019	2BR	700	$3,299	$4.71
Floors: 5	All	544	$3,035	$5.58
Units: 47				
The Broadway				
3093 Broadway	Studio	577	$2,551	$4.42
Pill Hill Submarket	1BR	752	$2,982	$3.97
Year Built: 2019	2BR	1,242	$3,962	$3.19
Floors: 6	3BR	1,433	$4,725	$3.30
Units: 423	All	848	$3,174	$3.74
Fourth Street East				
150 4th St	Studio	639	$3,022	$4.73
Jack London Submarket	1BR	792	$3,641	$4.60
Year Built: 2018	2BR	1,292	$4,757	$3.68
Floors: 7	3BR	1,421	$5,145	$3.62
	All	976	$4,022	$4.12

Table 13
Adjusted Rents Based on View Premiums; Scenarios 2a/b
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

		Studio	1BR	2BR	3BR	3BR-PH
Scenario 2A						
Market Rate Unit Distribution	*Avg. Premium* [1]					
Below Floor 8	*1.00*	8	15	14	9	0
Floors 8-32	*1.10*	34	86	86	37	0
Floors 33-45	*1.24*	0	59	54	8	0
PH	*1.30*	0	3	0	0	10
		42	163	154	54	10
Average View Premium		1.08	1.14	1.14	1.10	1.30
Base Rent		$5.78	$4.62	$3.67	$3.57	$3.57
Tower Adjustment	*1.05*	$6.06	$4.85	$3.86	$3.75	$3.75
View Premium Adjustment		$6.54	$5.55	$4.39	$4.14	$4.87
Scenario 2B						
Market Rate Unit Distribution	*Avg. Premium* [1]					
Below Floor 8	*1.00*	15	21	10	4	0
Floors 8-29	*1.09*	66	111	58	16	0
Floors 30-40	*1.21*	0	64	46	0	0
PH	*1.26*	0	2	0	0	10
		81	198	114	20	10
Average View Premium		1.07	1.12	1.13	1.07	1.26
Base Rent		$5.78	$4.62	$3.67	$3.57	$3.57
Tower Adjustment	*1.05*	$6.06	$4.85	$3.86	$3.75	$3.75
View Premium Adjustment		$6.49	$5.43	$4.35	$4.01	$4.73

[1] View premium of 0.75% per floor above floor eight. See Table 15

Table 14
Adjusted Rents Based on View Premiums; Scenarios 3a/b
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

		Studio	1BR	2BR	3BR	3BR-PH
Scenario 3A						
Market Rate Unit Distribution	*Avg. Premium* [1]					
Below Floor 8	*1.00*	7	13	13	8	0
Floors 8-32	*1.10*	35	76	76	35	0
Floors 33-45	*1.24*	0	71	65	10	0
PH	*1.30*	0	3	0	0	11
		42	163	154	53	11
Average View Premium		1.08	1.16	1.15	1.11	1.30
Base Rent (7 Stories)		$5.78	$4.62	$3.67	$3.57	$3.57
Tower Adjustment	*1.05*	$6.06	$4.85	$3.86	$3.75	$3.75
View Premium Adjustment		$6.56	$5.61	$4.44	$4.16	$4.87
Scenario 3B						
Market Rate Unit Distribution	*Avg. Premium* [1]					
Below Floor 8	*1.00*	14	19	9	4	0
Floors 8-29	*1.09*	67	100	50	15	0
Floors 30-40	*1.21*	0	77	55	0	0
PH	*1.26*	0	2	0	0	11
		81	198	114	19	11
Average View Premium		1.07	1.13	1.14	1.07	1.26
Base Rent (7 stories)		$5.78	$4.62	$3.67	$3.57	$3.57
Tower Adjustment	*1.05*	$6.06	$4.85	$3.86	$3.75	$3.75
View Premium Adjustment		$6.50	$5.48	$4.40	$4.01	$4.73

[1] View premium of 0.75% per floor above floor eight. See Table 15

Table 15
Calculation of View Premium By Floor
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**

Floor	0.75%/fl Premium[1]	Scenario 2a Units	Scenario 2b Units
8	1.01	12	14
9	1.02	12	14
10	1.02	12	14
11	1.03	12	14
12	1.04	12	14
13	1.05	12	14
14	1.05	12	14
15	1.06	12	14
16	1.07	12	14
17	1.08	12	14
18	1.08	12	14
19	1.09	12	14
20	1.10	12	14
21	1.11	12	14
22	1.11	12	14
23	1.12	12	14
24	1.13	12	14
25	1.14	12	14
26	1.14	12	14
27	1.15	12	14
28	1.16	12	12
29	1.17	11	12
30	1.17	11	12
31	1.18	11	12
32	1.19	11	12
33	1.20	11	12
34	1.20	11	12
35	1.21	11	12
36	1.22	11	12
37	1.23	11	12
38	1.23	11	12
39	1.24	11	12
40	1.25	11	12
41	1.26	11	7
42	1.26	11	3
43	1.27	12	3
44	1.28	12	
45	1.29	12	
46	1.29	7	
47	1.30	4	
48	1.31	3	
Average Premium			
Floors 8 to Last Floor Below PH		*1.14*	*1.12*
Bottom 2/3		*1.10*	*1.09*
Top 1/3		*1.24*	*1.21*
PH Floors		*1.30*	*1.26*

[1] Based on recently built tower projects. See Table 16

Table 16
View Premium Source Data
Financial Feasibility Analysis of High-Rise Prototypes
Emeryville, CA **8/12/2019**
Source: Property websites

	NEMA SF (June 2019)				399 Fremont (June 2019)				399 Fremont (July 2018)			
	Rent $/SF[2]		Premium/Fl. %[1]		Rent $/SF[2]		Premium/Fl. %[1]		Rent $/SF[2]		Premium/Fl. %[1]	
Floor	**Studio**	**1BR**	**Studio**	**1BR**	**Studio**	**2BR**	**Studio**	**2BR**	**1BR**	**2BR**	**1BR**	**2BR**
5												
6		$5.59										
7	$6.95	$5.59		-0.1%								
8	$6.97	$5.86	0.3%	2.4%		$5.48		0.0%				
9		$5.83		1.4%	$5.90		0.0%					
10									$5.62			
11	$7.15		0.7%									
12		$5.79		0.6%						$5.75		
13						$5.95		1.7%				
14		$5.83		0.5%								
15					$6.52		1.7%					
16												
17		$5.94		0.6%								
18						$6.52		1.9%				
19						$6.21		1.2%				
20		$5.95		0.5%								
21		$6.08		0.6%								
22									$6.19		0.84%	
23		$6.35		0.8%						$5.34		-0.65%
24					$6.67	$6.81	0.9%	1.5%				
25										$6.47		0.96%
26					$6.60	$6.04	0.7%	0.6%				
27										$5.82		0.08%
28		$6.30		0.6%								
29									$6.24		0.57%	
30					$6.58		0.5%			$6.44		0.67%
31						$6.28		0.6%				
32		$6.23		0.5%		$6.00		0.4%				
33										$6.80		0.87%
34						$6.33		0.6%	$6.60		0.73%	
35										$5.56		-0.14%
36						$5.45		0.0%	$6.71	$6.72	0.74%	0.70%
37										$6.93		0.82%
38										$6.74		0.66%
Average			*0.51%*	*0.76%*			*0.77%*	*0.86%*			*0.72%*	*0.44%*
Average, All Units			*0.72%*				*0.96%*				*0.53%*	
Assumed			***0.75% /floor***									

[1] Percent increase in rent vs. base floor divided by difference in floors.