



City of Long Beach

Peer Review of Inclusionary Housing
Policy – Economic Analysis by Keyser
Marston Associates

Prepared for:
Downtown Long Beach Alliance

Prepared by:
Beacon Economics, LLC.

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About Beacon Economics

Founded in 2007, Beacon Economics, an LLC and certified Small Business Enterprise in California, is an independent research and consulting firm dedicated to delivering accurate, insightful and objectively based economic analysis. Leveraging unique proprietary models, vast databases and sophisticated data processing, the company's specialized practice areas include sustainable growth and development, real estate market analysis, economic forecasting, industry analysis, economic policy analysis and economic impact studies. Beacon Economics equips its clients with the data and analysis required to understand the significance of on-the-ground realities and to make informed business and policy decisions.

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Preface

The City of Long Beach (The City) is in the process of establishing inclusionary housing policies for the purpose of increasing the supply of low-income, affordable housing for its residents. The City commissioned a study from Keyser Marston Associates, Inc. (KMA) entitled “Inclusionary Housing: Financial Evaluation” (the KMA report) that was released in July 2019. The KMA study (1) examines the financial impact of affordable housing requirements; and (2) estimates the in-lieu fees that could be supported without rendering projects financially infeasible.

The KMA report divided the city into two distinct submarkets: Submarket 1 (which more or less covers Downtown and Midtown Area, immediately north of Downtown Long Beach); and Submarket 2 (the rest of Long Beach). The majority of the report is devoted to Submarket 1. **Within the purview of Submarket 1, the KMA report examined inclusionary housing requirements for both rental residential development and ownership housing developments.** The report considered different single income categories—**market rate, moderate income, low income** and **very low income** for rental residential and market rate and moderate income for ownership housing development. Furthermore, the report included three mixed-income category scenarios for rental residential development. Based on the results from these scenarios, **KMA derived in-lieu fees based on the affordability gap approach** (market rate unit price less affordable sales price per unit).

The Downtown Long Beach Alliance engaged Beacon Economics to perform a peer review of the KMA study, including an in-depth examination of the study’s working assumptions, data, analysis, and conclusions. Additionally, Beacon Economics was tasked with conducting a sensitivity analysis, to examine the impact of potential changes in key inputs utilized in the KMA report. The intention was to use the peer review exercise to inform policymakers and ground the ultimate inclusionary housing policy in real market conditions.

Key goals of the Downtown Long Beach Alliance in commissioning this report include (1) identifying the impact of updating the KMA analysis with assumptions driven by Long Beach-specific data to capture the regulatory and market conditions of residential development in the City, and to (2) provide recommendations on key elements for the design of an inclusionary housing policy based on the sensitivity of KMA’s financial feasibility analysis.

I. Introduction

In July 2019, Keyser Marston Associates, Inc. (hereinafter after “Keyser Marston” or “KMA”) submitted to the City of Long Beach a study of Inclusionary Housing Program Financial Evaluation titled “Inclusionary Housing: Financial Evaluation” (hereinafter “the KMA report”), with the focus of examining (1) The impacts created by the imposition of affordable housing requirements and (2) The estimates of the fee amounts that can be supported for projects that are permitted to pay a fee in lieu of producing affordable housing. The report’s intent is to inform the City of Long Beach the financial feasibility of imposing Inclusionary Housing requirements on residential development in Long Beach.

Amid the housing crisis, the KMA study serves a very important purpose—the scoping of a supportable Inclusionary Housing policy may help the City of Long Beach alleviate its unmet housing needs as defined in the Regional Housing Needs Assessment (RHNA). Since the release of the KMA report, the Department of Housing and Community Development has released new data on jurisdictions’ progress on RHNA in 2018. For the City of Long Beach, between 2017 (latest year reported at the time of the release of the KMA report) and 2018, its RHNA statistics are updated in the following table.

City of Long Beach RHNA Statistics as of December 2018

<i>Income Category</i>	Total RHNA Obligation (2013- 2021)	Building Permits Issued as of Dec 2017	Building Permits Issued as of Dec 2018 (2017-2018 Change)	Remaining RHNA (Total)	Remaining RHNA (%)
<i>Very Low (VLI)</i>	1,773	269	306 (+37)	1,467	82.7%
<i>Low (LI)</i>	1,066	53	62 (+9)	1,004	94.2%
<i>Moderate</i>	1,170	0	0 (+0)	1,170	100.0%
<i>Above Moderate</i>	3,039	1,328	1,551 (+223)	1,488	49.0%
<i>Total</i>	7,048	1,650	1,919 (+269)	5,129	72.8%

The City has made little progress from 2017 to 2018. The current 5th Cycle of RHNA is more than half-way over but the City has failed to meet the pro-rated progress in every single income category, more so in the low-income categories. The vast majority of the permits issued are for above moderate income, highlighting the need of affordable housing in the City.

Beacon Economics, LLC (hereinafter “Beacon”) was engaged by the Downtown Long Beach Alliance (DLBA) to conduct a peer review of the KMA report, to critique its findings and recommendations and to explore alternatives to the findings and recommendations. One challenge in reviewing the KMA report is the lack of transparent information that permeates throughout the report. In the pro formas for the rental

residential and ownership project prototypes, there are no building construction types¹, average unit size nor building efficiency stated, all of which greatly affect the cost of construction. In addition, Beacon finds that various of KMA's assumptions on the rental residential and ownership project prototypes as well as its affordability analyses are detached from the reality. Particularly, for the project prototypes, there is no evidence that KMA has taken open space requirements into consideration when proposing the projects' building efficiency. Also, there are no recent sales transactions that support KMA's assumed land acquisition costs.

There are many key assumptions missing in the KMA report:

- There are no recent sales transactions that support a land acquisition cost of \$205/SF
 - In addition, land value varies considerably between Downtown area and Midtown area, even if KMA claim they are within the same broad submarket
- KMA did not specify the average unit size by number of bedrooms that form the basis of the pro formas
 - For rental projects, the only reasonable inference Beacon can make is that KMA used the weighted average results on its rent survey in Attachment 2 Appendix E Exhibit I of the KMA report.
 - But for ownership projects, KMA did not use the weighted average results in its condominium sales survey in Attachment 3 Appendix C Exhibit I.
- There is no building efficiency ratio (net rentable area/gross building area) assumed nor consideration for open space requirements
 - Again, Beacon can make a reasonable inference using the weighted average results on its rent survey in Attachment 2 Appendix E Exhibit I; and
 - Beacon will demonstrate that the imputed building efficiency ratios that KMA implicitly assumed based on its data are unrealistic.
- There is no indication whether on-site improvement/landscaping cost includes demolition cost
 - Given that Downtown and Midtown Long Beach are built out, a development project is likely to be an infill project where any existing structure on top of the parcel need to be demolished before any construction work can be done.
- There are no cost estimates for off-site improvements, which are required by the City
 - See Title 20.24.040 of the City's municipal code

¹ Building construction types refer to the materials used in the building and the extent to which building elements such as building frame, roof, wall and floor can resist fire. These building construction types are established by the International Code Council and each project must follow the guidelines set forth. For a multi-family residential building, these are typically Type I (concrete), Type III, or Type VA. Factors such as building height and number of stories determine the type of construction material used. For more information, please visit the ICC's 2018 International Building Code: [Chapter 6: Types of Construction](#).

- There are no considerations on water-table and methane issues. The KMA report is assuming conventional foundations but in Long Beach there is likely going to be some issues with water table and methane, given that the area was subject to oil pumping in the past.
- There are no cost estimates for bicycle parking, which is essential given the submarket location.

In addition, there also exist many key assumptions that are questionable in the KMA report:

- Consolidation of Downtown Long Beach and Midtown into one aggregate submarket
- Land parcel sizes: 32,870 sq. ft. for rental projects and 43,560 sq. ft. for ownership project
 - Most parcels in the submarket are much smaller than these specified areas and are of an elongated shape
 - No discussion of reverse subdivision and the additional fees associated
- Assumption of a 30% reduction in the land cost caused by Inclusionary Housing requirements (see Sections IIB and IIIE of the report)
- Assumption of 85-92 parking spaces can fit in per subterranean level on a $\frac{3}{4}$ acre of land.
- Uniform assumption of \$20,000 per unit of permit fees, when in fact many of the largest permit fee items are proportional to size
- A construction loan period is too short and incompatible with lender's perspective.
- Construction loan interest rates deviate between rental and ownership projects without justification.
- As for ownership units, KMA assumes a 5.31% interest rate for a 30-year fully amortized mortgage loan.
 - The 30-year fixed mortgage rate averaged has stayed below 5.31% since July 2009.
 - The current 30-year fixed mortgage rate is 3.57% as of October 10, 2019.
- In addition, KMA assumes a 5% down payment of the ownership unit sales price, yet not taking private mortgage insurance (PMI) into account
- Discrepancy between the market rate unit rent assumed in pro formas versus the weighted average market rate unit rent results from its submarket rent survey (Attachment 2 Appendix E Exhibit I).
 - The market rate unit rents assumed in the pro formas are higher than those in the rent survey
 - The discrepancies lead to higher Net Operating Income and overstates Return on Total Investment
 - The discrepancies also lead to **significantly higher affordability gaps** in the affordable rental calculations in Attachment 2: Appendix D in the KMA report

The peer review is organized into two main sections: Non-Cost Assumptions (Section II) and Cost Assumptions (Section III). Based on the discussions of Section II and Section III, Section IV will display the revised pro formas results of each project prototypes. Since the pro formas feed into the affordability analyses, Section V will show the revised affordability analyses based on the findings from Section IV that are alternatives to the KMA analyses.

II. Critique of KMA's Non-Cost Assumptions

No two cities are the same. In order to design an Inclusionary Housing Program suitable for the City of Long Beach, it is important to understand the landscape unique to the City and the current financial landscape that feed into the mortgage rates and affordability calculations. For example, each City has different ordinance that governs building standards such as minimum parking requirements, minimum required parking space dimensions, open space requirements, etc. The non-construction cost related considerations provide parameters for project prototypes that are likely to be built in the City and affect the costs of development directly. It is therefore essential for a study to consult these elements at the bare minimum in crafting the pro formas for the project prototypes.

In reviewing the KMA report, Beacon has identified eight main non-cost assumptions that merit discussions:

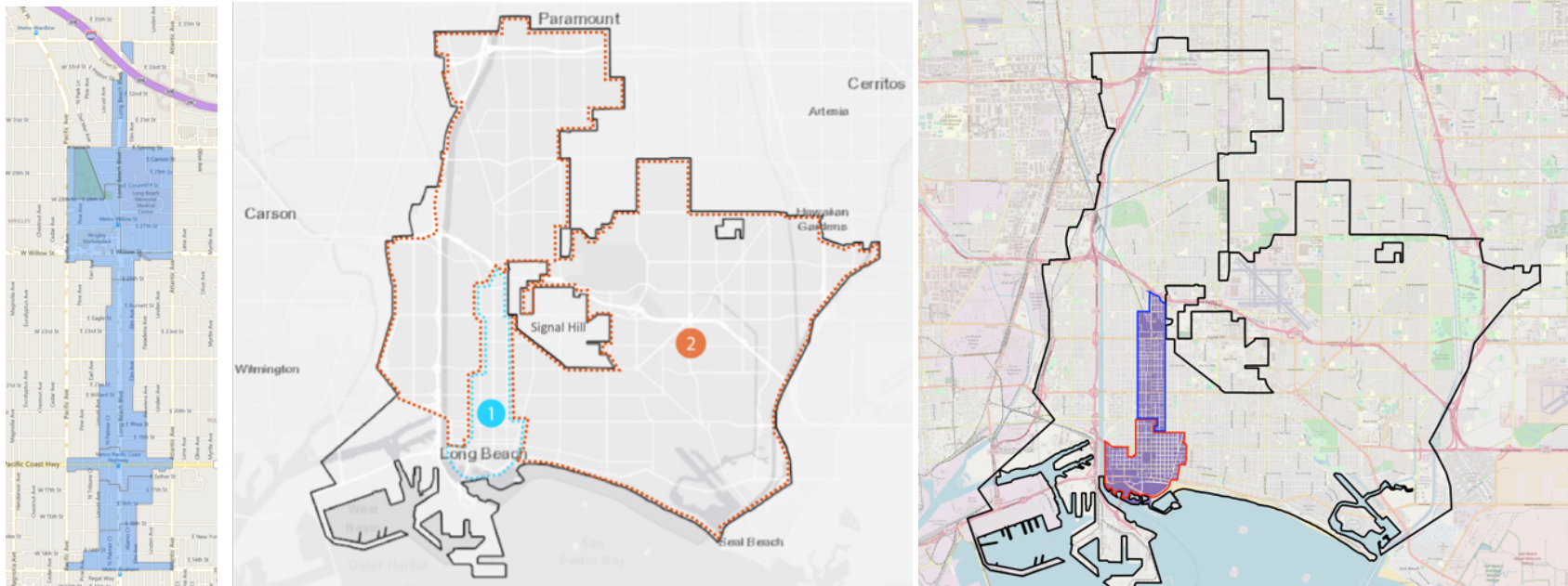
- a. Land Parcel Sizes
- b. Car Parking Spaces
- c. Unit Sizes and Unit Mix
- d. Building Efficiency
- e. Open Space Requirements
- f. Bicycle Parking Spaces
- g. Mortgage Interest Rate
- h. 5% Mortgage Down Payment in Ownership Units

Each of these assumptions is discussed individually in this Section.

A. Land Parcel Sizes

Within the purview of the KMA report, Submarket 1 consists of the Downtown (PD 30), the Downtown Shore (PD 6) and the Midtown area. It is true that there is a clear differentiation in the development activity between Submarkets #1 and #2 per KMA. Yet there are some fundamentally different attributes—such as land parcel sizes and dimensions, open space requirements, and land value—between Downtown and Midtown. For this reason, it may be unsuitable to consolidate Downtown and Midtown into one aggregate submarket. For the purpose of this peer review, Beacon has elected to keep Downtown and Midtown as one submarket in analyzing the pro formas.

Note that the boundaries for Midtown in both the KMA report and this report are different from the boundary of the Midtown Specific Plan. Based on the Submarket Map in Section II.C. of the KMA report, it is not possible to work out the exact boundaries of Midtown in the KMA report. Therefore, the Midtown boundary presented in this report is a close approximation of those in the KMA report.



Left: Midtown Specific Plan GIS Boundary

Middle: Submarket 1 as presented in the KMA report (page 12)

Right: Submarket 1 broken down into Downtown & Downtown Shore areas (red outline) and Midtown area (blue outline)

Beacon uses the County of Los Angeles Open Data Portal's 2018 Assessors Parcels Data² to analyze the land parcel sizes in Submarket 1. The Downtown (PD 30) and Downtown Shore (PD6) boundaries are obtained from the City's GIS data catalog and combined together. Although the overall submarket boundary differs slight from that of KMA but the main arguments still hold true.

Summary Statistics of Submarket 1 Parcels, Downtown and Midtown

	Downtown	Midtown	Submarket 1
No. of parcels	7,301	2,857	10,158
Avg. parcel size (SF)	31,041	12,001	27,167
Square footage of the parcel at the following percentiles:			
10th percentile	4,746	3,680	4,129
25th percentile	7,509	5,195	6,487
50th percentile	19,946	6,406	13,235
75th percentile	33,498	8,912	33,206
90th percentile	62,235	29,234	54,306
Percent of parcels smaller than the land sizes in the prototype pro formas			
32,870 SF	66%	92%	74%
43,560 SF	81%	95%	85%

GIS Data Source: City of Long Beach GIS Data Catalog; County of Los Angeles GIS Open Data Portal. Calculations by Beacon Economics

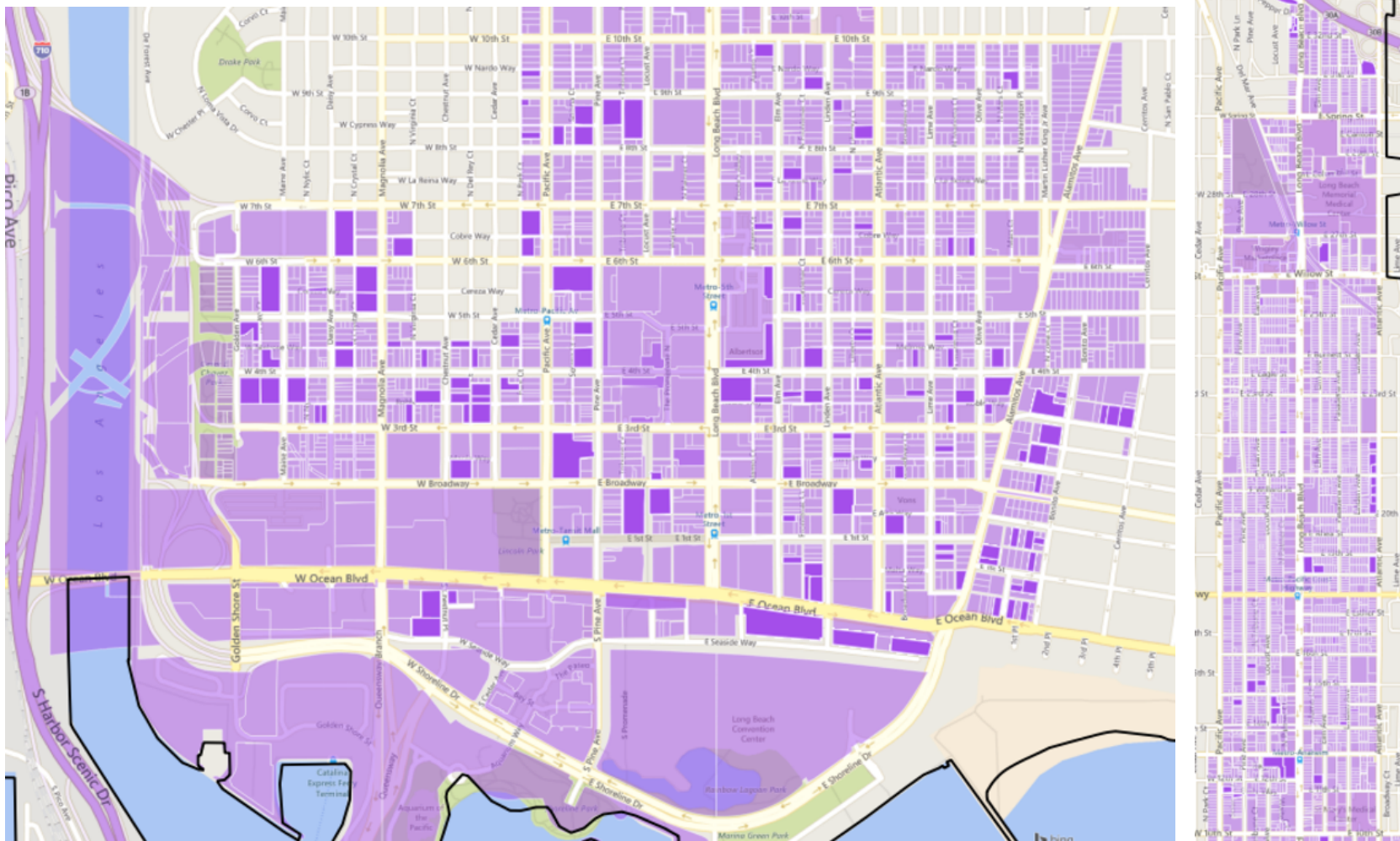
The average parcel size (of all land regardless of land use) in Downtown and Midtown are significantly smaller than the land sizes in the pro formas: 32,870 square feet for the rental project prototypes and 43,560 for the ownership prototypes. The average (mean) parcel is larger in Downtown (31,041 square feet) than Midtown (12,001 square feet). The median parcel measures just 19,946 square feet in Downtown and 6,406 in Midtown—far smaller than those in the pro formas—which are about 3/5 and 1/5, respectively, of the 32,870 square feet parcel size in the rental prototype.

In fact, 74% and 85% of the parcels in Submarket 1 are smaller than the dimensions specified in KMA's pro formas. Over 92% and 95% of the parcels in Midtown are smaller than the dimensions specified in KMA's rental and ownership pro formas, respectively. This means KMA's

² The data can be retrieved from: <https://data.lacounty.gov/browse?q=parcels%202016%20tax%20roll&sortBy=relevance>

prototypes are either not representative of the actual landscape or the land would need to be reverse-subdivided. These prototypes are less suitable for Midtown development than Downtown since a higher portion of Midtown parcels are too small to be suitable.

Images of Downtown (Left) and Midtown (Right) Parcels

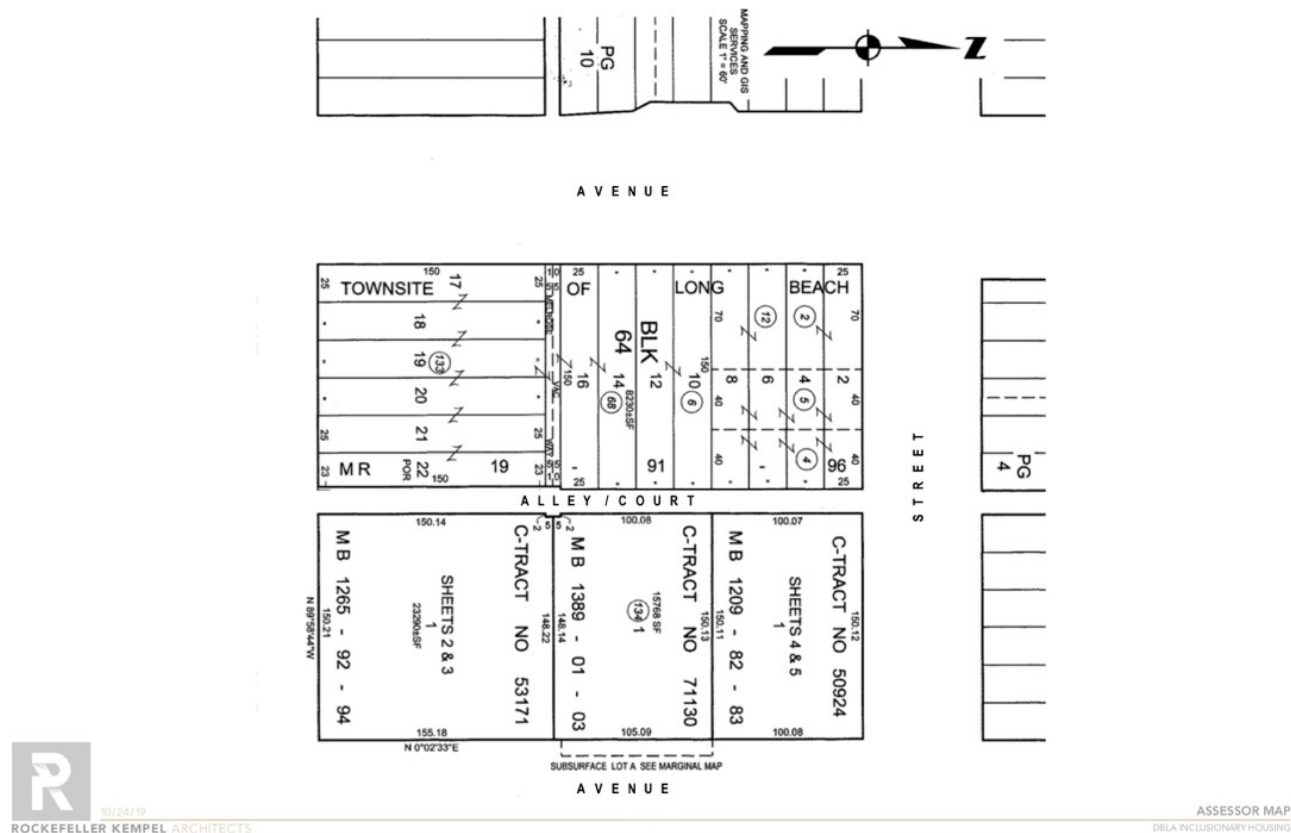


The majority of these parcels are elongated rectangles

In addition to the small parcel sizes, many parcels in the submarket have an elongated rectangular shape, rendering development inefficient at best or simply impractical. In Submarket 1, some of the most common parcel sizes and shapes are:

- 20,000 SF (600 feet by 33.33 feet)
- 15,000 SF (500 feet by 30 feet)
- 7,400 SF to 7,600 SF (400 feet by 18.5 feet to 19 feet)
- 6,500 SF (360 feet by 18 feet or 380 feet by 17 feet)
- 5,000 SF (300 feet by 16.67 feet)
- 2,500 SF (200 feet by 12.5 feet or 250 feet by 10 feet)

The individually small and elongated land parcels imply development is not even remotely possible unless reverse subdivision occurs, where it is common for a developer to purchase several adjacent lots and combine them into one developable larger lot.



Source: D. Rocky Rockefeller, AIA, Consulting Architect, Rockefeller Kempel Architects

This is a sample reverse subdivision where several parcels of land are amalgamated into one aggregate plot near Melrose Way. For example, eight 25 feet by 150 feet parcels measuring 3,750 square feet each are joined together to form a new parcel measuring 30,000 square feet.

Below are examples of current development projects that are made possible as a result of reverse subdivision.

A mixed used project on 1101-1157 Long Beach Blvd.



Google Map Satellite Image of Site Area (2019)

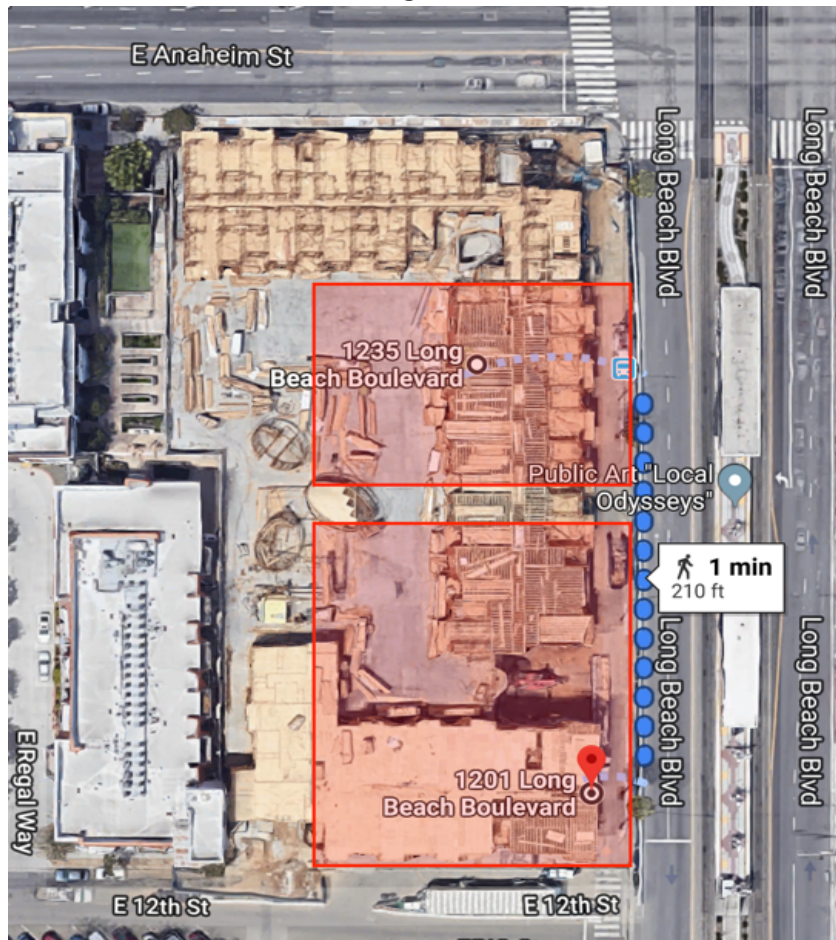


Parcel Map of the Site Area (2018)

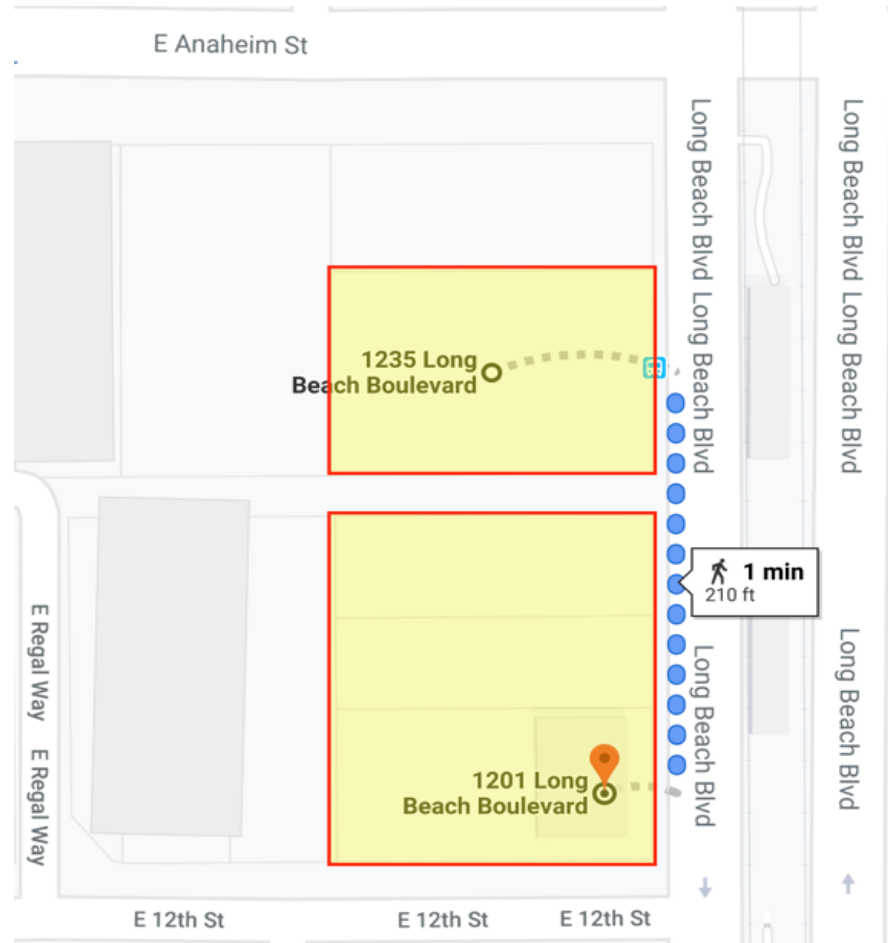
Source: Google Map and County of Los Angeles GIS Open Data Portal

The above images show the most recent state of a mixed-use project that is being developed currently on 1101-1157 Long Beach Boulevard at the southwest corner of 12th Street and Long Beach Boulevard. According to the Los Angeles County Assessors Parcels Data, the site consisted of three separate parcels prior. These individual parcels were also of an elongated rectangular shape but had combined together to form a larger and a more squared parcel that is more suited for development.

The Beacon on 1201-1235 Long Beach Blvd.



↑ Google Map Satellite Image of Site Area (2019)



↑ Parcel Map of the Site Area (2018)

Source: Google Map and County of Los Angeles GIS Open Data Portal

Similarly, the Beacon on 1201-1235 Long Beach Boulevard used to be smaller parcels combined together.

B. Car Parking Spaces

In the rental residential project prototypes, KMA assumes 85 to 92 parking spaces can fit into each subterranean level underneath a lot measuring 32,870 square feet. Attachment 2, Appendix A, Table 1 of the KMA report is reproduced below to show the parking space specifications of the market rate rental residential prototype project:

II. Direct Costs	²				
On-Site Improvements/Landscaping		32,870	Sf of Land	\$20 /Sf of Land	\$657,000
Parking	³				
At-Grade Spaces		0	Spaces	\$5,000 /Space	0
Above-Ground Podium Spaces		0	Spaces	\$25,000 /Space	0
1st Level Subterranean		90	Spaces	\$35,000 /Space	3,150,000
2nd Level Subterranean		92	Spaces	\$45,000 /Space	4,140,000
Building Costs		106,312	Sf of GBA	\$125 /Sf of GBA	13,289,000
Contractor/DC Contingency Allow		20%	Other Direct Costs		4,247,000
Total Direct Costs		106,312	Sf of GBA	\$240 /Sf of GBA	

Source: Keyser Marston Associates, Inc.

In the Market Rate Rental Project prototype, KMA assumed 90 to 92 spaces per subterranean level of parking. Assuming the underground parking is built to the line, such that a maximum of 32,870 square feet of land (ignoring all other issues) is used, this yields 357.28 to 365.22 square feet per space. For a less than one acre lot, these are very efficient and lean parking spaces, which are very difficult to achieve on land parcels less than two acres and less feasible for below-grade (subterranean) parking structures than for above ground parking lots.

Many below-grade or mixed-use garages can have parking efficiencies of 400 to 500 square feet per space (Penny, 2016).³ In the United States, off-street parking spaces average 513 square feet (Marshall, 2014).⁴ The number of parking spaces that can fit into an underground level of parking shrinks further if the structure takes setbacks into account.

³ Penny, H. D. (2016). "How Much Does a Structure Cost." International Parking & Mobility Institute. Retrieved on October 22, 2019. Retrieved from: <https://www.parking-mobility.org/2016/01/19/tpp-2013-09-how-much-does-a-structure-cost/>

⁴ Marshall, W. (2014). "On-Street Parking." *Parking Issues and Policies*, Transport and Sustainability, p. 367. Retrieved from: <http://bit.ly/2EhgsFM>

Parking Square Footage per Space and Cost per Space Summary, Assuming “Built-to-Line”

	Unit	Market Rate Rental Project	Inclusionary Rental Project	Ownership Project
Land	Square Feet	32,870	32,870	43,560
Parking				
First Level Subterranean	Spaces	90	90	
	SF per space	365.22	365.22	
	Cost per space	\$35,000	\$35,000	
Second Level Subterranean	Spaces	92	85	
	SF per space	357.28	386.71	
	Cost per space	\$45,000	\$45,000	
Above-Ground Podium Spaces	Spaces			142
	SF per space			306.76
	Cost per space			\$25,000

When taking the City’s parking development standards into account, Beacon demonstrates that it is not feasible to include that many parking spaces per level. The following tables summarize the City of Long Beach’s off-street parking and loading requirements under Section 21.41 of the City’s Municipal Code.

Table 41-2: Minimum Parking Space Sizes

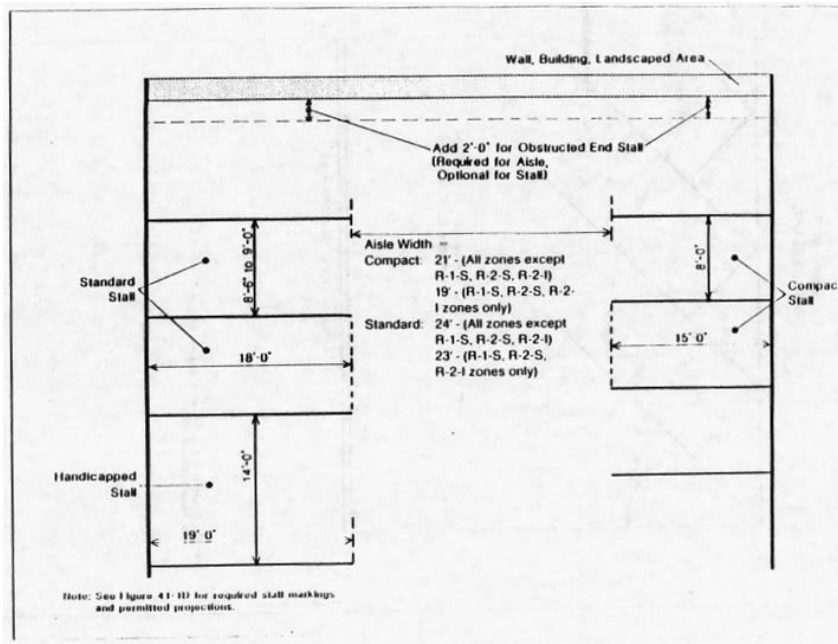
All Uses	Size	Aisle Width	Proportion
Compact	8 feet by 15 feet	21 feet (all zones except R-1-S, R-2-S, R-2-I zones)	Residential—not more than 50 percent Nonresidential—none
Standard	8 feet 6 inches by 18 feet	24 feet (all zones except R-1-S, R-2-S, R-2-I zones) 23 feet (R-1-S, R-2-S, R-2-I zones)	
Handicapped	14 feet by 18 feet	24 feet	See State requirements (title 24, part 2, Ch. 2-71 of the California Administrative Code)

Table 41-3: Minimum Required Turning Radii

Type of Parking Space	90 Degree Parking	All Other Parking
1. Standard and handicapped	24 feet (all zones except R-1-S, R-2-S, R-2-I zones) 23 feet (R-1-S, R-2-S, R-2-I zones only)	24 feet or less, as indicated in figures 41-1A, 41-1B and 41-1C
2. Compact	21 feet (all zones except R-1-S, R-2-S, R-2-I) 19 feet (R-1-S, R-2-S, R-2-I zones only)	21 feet or less, as indicated in figures 41-1A, 41 1B and 41 1C

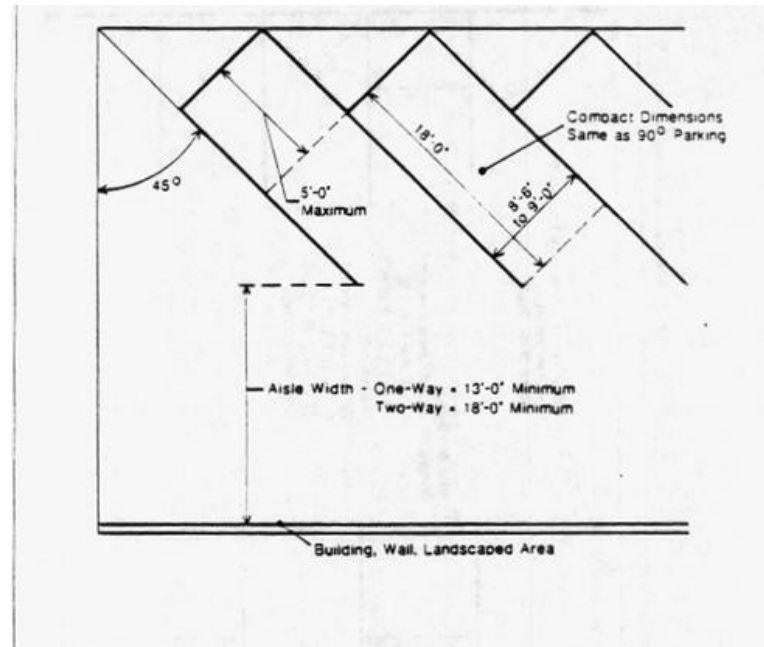
Source: City of Long Beach Municipal Code

Below are illustrations of the City of Long Beach’s parking development standards for a 90-degree parking design and a 45-degree parking design



90-Degree Parking Illustration

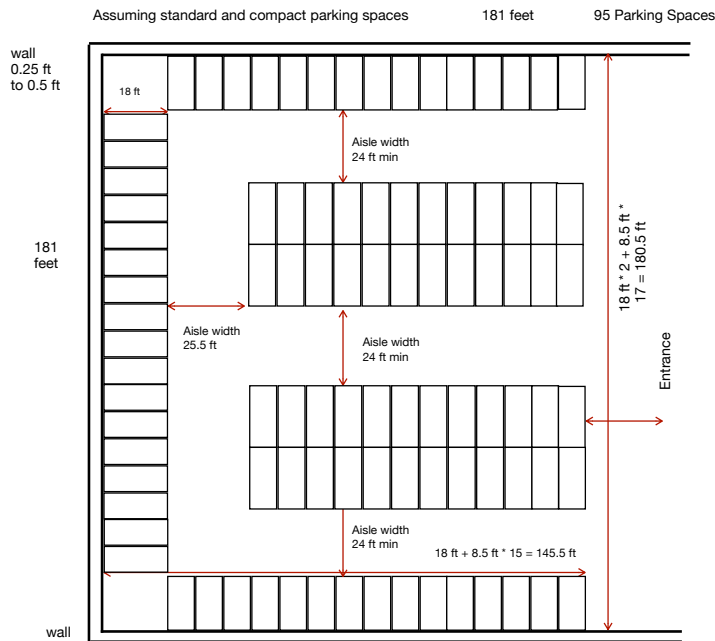
Source: City of Long Beach Municipal Code



45-Degree Parking Illustration

A 90-degree parking lot design is more efficient than a 45-degree design (i.e., can fit more parking spaces per level), Beacon assumes that the 90-degree design is used in the KMA report. Taking the above parking development standards into account, the only way a 32,870 square feet underground parking level can fit 90 parking spaces or more is under the absolute ideal condition: an almost perfectly square lot. The following illustration demonstrates the number of parking spaces that can be fitted into one underground level under such conditions.

90-degree parking illustration 1 (181 ft * 181 ft = 32,761 sq. ft)



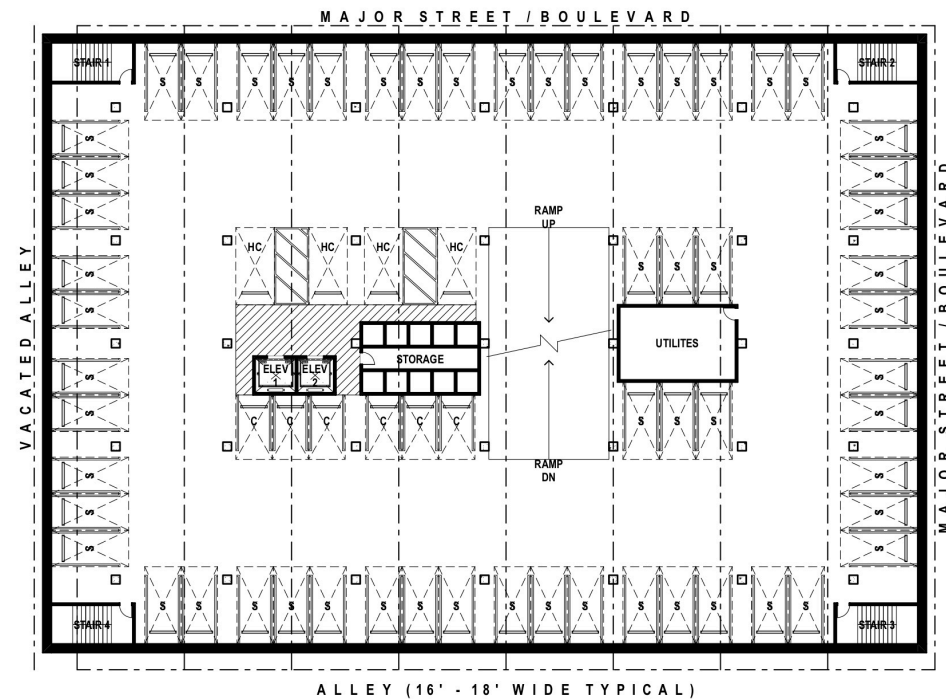
This is a highly unrealistic subterranean parking lot layout using KMA's assumptions:

1. For infill projects in Downtown Long Beach, land parcels are seldom $\frac{3}{4}$ of an acre or larger as discussed in Part A above. The only plausible way is to consolidate a few parcels into one.
2. This is only possible under an almost square parcel. For more rectangular or irregularly shaped parcels, parking efficiency is drastically reduced.
3. This bare bone parking structure is missing several amenities and features mandated by the City.
 - a. Speed ramps
 - b. EV charging stations—EV parking spaces typically measure 20 feet long each, which is longer than the standard 18 feet
 - c. Columns and pillars to support the underground structure
 - d. Handicapped parking spaces, which are considerably more spacious than the standard 8.5 feet by 18 feet parking space.
 - e. Elevators and stairs
 - f. Storage space

Note that this is for a 90-degree parking design, which is already more efficient (fits more parking spaces) than a 60-degree or a 45-degree parking design. In addition, this also assumes “zero-foot build-to line” scenario; it is not possible to fit 90 spaces per level in scenarios where it requires a 6-foot setback or a 10-foot setback.

Beacon consulted with Rockefeller Kempel Architects (RKA), a Los Angeles architecture firm that specializes in multi-family projects and has decades of experience working with developers on multi-family projects in Long Beach. Below are illustrations of parking lot layouts for both rental residential (land size of 32,870 square feet) and ownership projects (land size of 43,560 square feet) by RKA based on the information in the KMA report. These designs take the City's parking development standards into account.

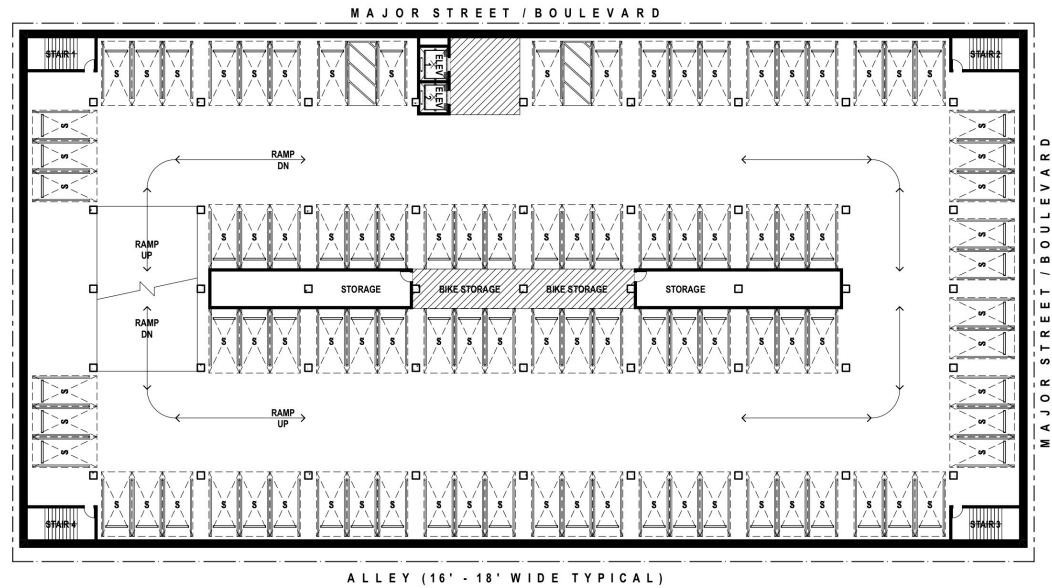
Subterranean Parking Design for Residential Rental Project Prototype, Based on 32,870 SF of Land



Source: D. Rocky Rockefeller, AIA, Consulting Architect, Rockefeller Kempel Architects

Based on a land area of 32,870 square feet, City parking development standards, and including the aforementioned amenities and features required by the City, a standard subterranean level can accommodate 66 parking spaces per level. This means a third level of subterranean parking will be required. Furthermore, deeper levels are more expensive as it requires additional excavation costs and more structure support.

Subterranean Parking Design for Ownership Project Prototype, Based on 43,560 SF of Land



10/24/19
ROCKEFELLER KEMPEL ARCHITECTS

1" = 20'

TYPICAL PARKING (1 ACRE)
DELA INCLUSIONARY HOUSING

Source: D. Rocky Rockefeller, AIA, Consulting Architect, Rockefeller Kempel Architects

Based on a land area of 43,560 square feet, City parking development standards, and including the aforementioned amenities and features required by the City, a standard above ground level can accommodate 95 parking spaces. Since the ownership prototypes require 140 parking spaces each, a second above ground level will need to be constructed.

The size, height, and turning radius of current automobiles as well as past and future trends of automobile size and statistical quantity must be taken into account these are called parking geometries. There are many ramp design configurations and different ones are appropriate for the primary purpose of the facility to ensure that the intended use is compatible with ramp design. The streets surrounding the facility and their traffic flow must be taken into consideration when planning entrances and exits and deciding on ramp designs. The entrances and exits are very important to the smooth functioning of the facility, with the type of use again determining the length from the opening and placement of the entry booths, as well as the quantity of entrances and exits.

C. Unit Sizes and Unit Mix

There is no mention of the unit size assumed for each of the unit type (studios, 1-bedroom, 2-bedroom, and 3-bedroom) in its pro formas (Attachment 2 Appendix A Tables 1 and 2 shown here as an example). The term “unit size” first appears on page 93 in Attachment 2 Appendix E Exhibit I: Rent Survey for Submarket 1, after all the rental residential development pro formas are presented in Attachment 2 Appendices A-D.

APPENDIX A - TABLE 1

ESTIMATED DEVELOPMENT COSTS
SUBMARKET #1: RENTAL RESIDENTIAL DEVELOPMENT
MARKET RATE ALTERNATIVE
BASE ZONING: 125 UNITS PER ACRE SCENARIO
INCLUSIONARY HOUSING FEASIBILITY ANALYSIS
LONG BEACH, CALIFORNIA

I. Property Acquisition Costs	¹	32,870 Sf of Land	\$205 /Sf of Land	\$6,738,000
II. Direct Costs	²	32,870 Sf of Land	\$20 /Sf of Land	\$657,000
On-Site Improvements/Landscaping	³			
Parking				
At-Grade Spaces		0 Spaces	\$5,000 /Space	0
Above-Ground Podium Spaces		0 Spaces	\$25,000 /Space	0
1st Level Subterranean		90 Spaces	\$35,000 /Space	3,150,000
2nd Level Subterranean		92 Spaces	\$45,000 /Space	4,140,000
Building Costs		106,312 Sf of GBA	\$125 /Sf of GBA	13,289,000
Contractor/DC Contingency Allow		20% Other Direct Costs		4,247,000
Total Direct Costs		106,312 Sf of GBA	\$240 /Sf of GBA	\$25,483,000
III. Indirect Costs				
Architecture, Engineering & Consulting		8% Direct Costs		\$2,039,000
Public Permits & Fees	⁴	94 Units	\$20,000 /Unit	1,880,000
Taxes, Insurance, Legal & Accounting		3% Direct Costs		764,000
Marketing		94 Units	\$5,000 /Unit	470,000
Developer Fee		5% Direct Costs		1,274,000
Soft Cost Contingency Allowance		5% Other Indirect Costs		321,000
Total Indirect Costs				\$6,748,000
IV. Financing Costs				
Interest During Construction				
Land	⁵	\$6,738,000 Cost	3.6% Avg Rate	\$364,000
Construction	⁶	\$34,194,000 Cost	3.6% Avg Rate	1,108,000
Loan Origination Fees		60% Loan to Cost	2.0 Points	491,000
Total Financing Costs				\$1,963,000
V. Total Construction Cost		94 Units	\$364,000 /Unit	\$34,194,000
Total Development Cost		94 Units	\$435,000 /Unit	\$40,932,000

¹ Estimated based on a survey of the sales of residentially zoned land in the SUBMARKET between 2016 and 2018.

² Based on the estimated costs for similar uses.

³ Based on 1.5 spaces for Studio Units; 1.5 spaces for One-Bedroom Units; 2.0 spaces for Two-Bedroom Units; 2.0 spaces for Three-Bedroom Units; and 0.25 spaces per unit for guest parking.

⁴ Based on estimates prepared for other projects within Long Beach.

⁵ Based on an 18 month construction period and a 60% average outstanding loan balance.

⁶ Based on an 18 month construction period and a 60% average outstanding loan balance.

APPENDIX A - TABLE 2

ESTIMATED STABILIZED NET OPERATING INCOME
SUBMARKET #1: RENTAL RESIDENTIAL DEVELOPMENT
MARKET RATE ALTERNATIVE
BASE ZONING: 125 UNITS PER ACRE SCENARIO
INCLUSIONARY HOUSING FEASIBILITY ANALYSIS
LONG BEACH, CALIFORNIA

I. Gross Income	¹			
A. Market Rate Units				
Studio Units	12 Units @	\$2,569 /Unit/Month		\$370,000
One-Bedroom Units	48 Units @	\$2,620 /Unit/Month		1,509,000
Two-Bedroom Units	34 Units @	\$3,304 /Unit/Month		1,348,000
Three-Bedroom Units	0 Units @	\$0 /Unit/Month		0
B. Laundry & Miscellaneous Income	94 Units @	\$25 /Unit/Month		28,000
Total Gross Income				\$3,255,000
Vacancy & Collection Allowance	5% Gross Income			(163,000)
II. Effective Gross Income				\$3,092,000
III. Operating Expenses				
General Operating Expenses	94 Units @	\$4,500 /Unit		\$423,000
Property Taxes	94 Units @	\$4,700 /Unit		443,000
Replacement Reserve Deposits	94 Units @	\$150 /Unit		14,000
Total Operating Expenses				(\$880,000)
IV. Stabilized Net Operating Income				\$2,212,000

¹ Based on the rent survey presented in APPENDIX E - EXHIBIT I. The weighted average monthly rent equates to \$3.16 per square foot of leasable area.

Above: Tables 1 and 2 of the market rate rental residential project prototype. There is no information on unit sizes.

It is important to have information on the unit size dimensions because this information is used to derive net rentable area as well as market rate and affordable rental rates; all of which are needed in order to construct a defensible pro forma. The following table summarizes the minimum, maximum, and weighted average rents by unit type (studio, 1-bedroom, and 2-bedroom) in Submarket 1 that appears in the Rent Survey in Attachment 2, Appendix E, Exhibit I.

Rent Survey (Attachment 2 Appendix E Exhibit I) Summary for Submarket 1

	Studio Units	One-Bedroom Units	Two-Bedroom Units	Total
Minimum Rent	\$1,616	\$1,876	\$1,675	\$1,616
Maximum Rent	\$2,952	\$2,876	\$4,194	\$4,194
Weighted Average Rent	\$2,179	\$2,370	\$3,017	\$2,584
No. of Units	320	1,303	941	2,564
No. of Units (%)	12.5%	50.8%	36.7%	100%
Weighted Average Unit Size (sq. ft.)	729	805	1,108	907

But the weighted average rents DO NOT form the basis of rental income in KMA's pro formas

Submarket #1: Projected Monthly Market Rate Rents	
<u>Average Monthly Rent Per Unit</u>	
Studio Units	\$2,569
One-Bedroom Units	\$2,620
Two-Bedroom Units	\$3,304
Average Monthly Rent Per Sq. Ft. of GLA ¹⁰	\$3.16

The unit percentage mix forms the basis of unit mix in KMA's pro formas

The weighted average unit size is assumed to form the basis of net rentable area

Note that in KMA's rent survey, nearly all comps are located in the Downtown area and not in the Midtown area. This implies a model pro forma should more resemble the reality of Downtown than the Midtown. As previously mentioned, land value and parcel characteristic differ between Downtown and Midtown, implying that **land/property acquisition costs in KMA's pro formas may be underestimated**, and thus **development costs are underestimated** and **return on investments are overstated**. The unit mix and unit size are used to inform KMA's feasibility analysis of rental residential development prototypes, but the rental rates differ from the average rents stated in its rent survey.

For the weighted average unit sizes in the KMA's Rent Survey, the results are based on data from CoStar Group. At first glance, it appears that the average unit size of studio apartments (729 square feet) is slightly larger than the typical studio apartment unit.

APPENDIX E - EXHIBIT I

RENT SURVEY

SUBMARKET #1

RENTAL RESIDENTIAL DEVELOPMENT

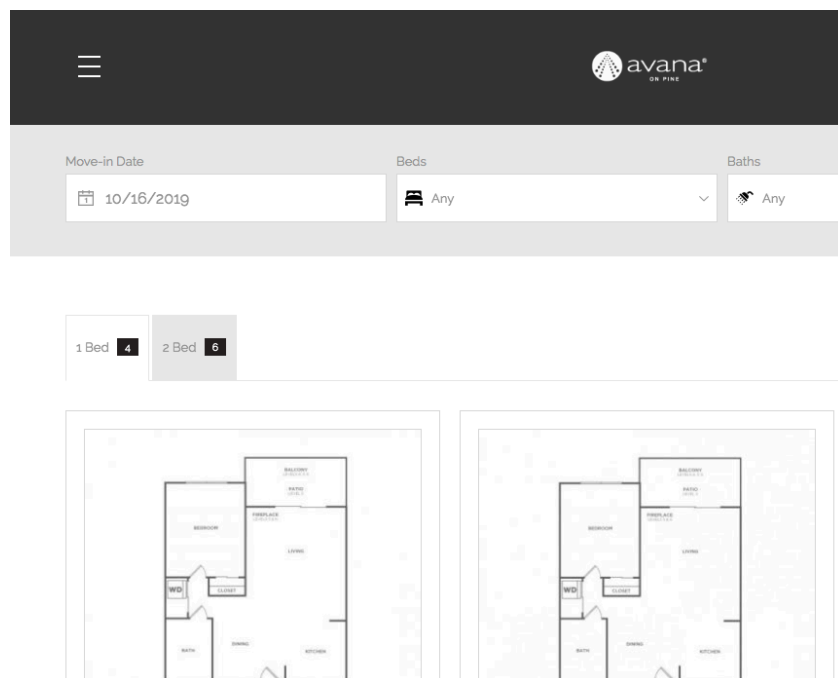
INCLUSIONARY HOUSING FEASIBILITY ANALYSIS

LONG BEACH, CALIFORNIA

Name	Address	# of Units	Unit Size (SF)	Average Rent		Parking Spaces Provided Per Unit	Year Built
				Total	Per SF		
Studio Units							
Bella Mare 6th Street Lofts	431 E 6th Street	9	605	\$1,653	\$2.73	1.4	2015
AMLI Park Broadway	245 West Broadway	40	767	\$2,952	\$3.85		2019
442 Residences	442 W Ocean Blvd	43	536	\$2,115	\$3.95	1.6	2019
The Current	707 E Ocean Blvd	30	685	\$2,584	\$3.77	2.0	2016
The Edison	100 Long Beach	48	602	\$2,091	\$3.47	3.2	2016
Urban Village	1081 Long Beach Blvd	19	565	\$1,827	\$3.23	1.4	2015
Avana on Pine	145 Pine Ave	69	1,163	\$2,176	\$1.87	1.9	1992/2016
Griffis Pine Avenue	404 Pine Avenue	15	578	\$1,616	\$2.80	1.5	2003
Sofi at Third	225 W 3rd Street	32	484	\$1,814	\$3.75	1.9	1990
Pine at Sixth	595 Pine Ave	15	628	\$1,891	\$3.01	1.9	1987
	Minimum		484	\$1,616	\$1.87		
	Maximum		1,163	\$2,952	\$3.95		
	Weighted Average		729	\$2,179	\$3.21		

Above shows a snippet of the KMA Rent Survey for studio apartment units. An entry that stands out is that the average studio unit size of Avana on Pine (1,163 square feet) is considerably larger than the other entries—almost 400 square feet larger than the next largest entry, AMLI Park Broadway! 1,163 square feet average for studio units is exceptionally large and is describes the square footage of a 2-bedroom unit more closely. While Costar is an acceptable source, it is important to spot for unusual data and verify the data's accuracy if possible.

A search on both Avana on Pine's own website⁵ and Apartments.com⁶ reveal that the building does not list any studio units in the inventory. The studio units classified in Costar are actually 1-bedroom or even 2-bedroom units.



← Map Menu Español Apartments.com®

Avana on Pine CoStar Verified®

145 W Broadway, Long Beach, CA 90802 – **Downtown Long Beach** ★★★★★ (20)

1 Bedroom \$2,185 – 4,974 2 Bedrooms \$2,466 – 5,000

Home / California / Long Beach / Avana on Pine

1 Bed 4 2 Bed 6

34 Images

		All	1 Bedroom	2 Bedrooms			
1 Bed	1 Bath	\$2,185 – 4,239	722 – 775 Sq Ft	Plan B Plus	Available Now	View Model	
1 Bed	1 Bath	\$2,450 – 3,961	610 722 – 775 Sq Ft	Plan B Plus	Available Now	View Unit	
1 Bed	1 Bath	\$2,200 – 3,691	662 – 675 Sq Ft	Plan B	Available Now	View Model	

Left: Avana on Pine's Website, which only has listings for 1-bedroom or 2-bedroom units

Right: Search results for Avana on Pine on Apartments.com website, which only has listings for 1-bedroom or 2-bedroom units

Using comp data from Axiometrics/RealPage, Beacon is able to determine the actual average unit size for studios units, 1-bedroom units, and 2-bedroom units for Avana on Pine. The table below compares CoStar's data vs. that of Axiometrics/RealPage.

⁵ Avana on Pine website: <https://www.avanaonpine.com/long-beach/avana-on-pine/>

⁶ Avana on Pine's listings on Apartments.com: <https://www.apartments.com/avana-on-pine-long-beach-ca/egz78np/>

Summary Statistics of Avana on Pine, CoStar and Axiometrics/RealPage

	CoStar		Axiometrics/RealPage	
	Units	Size (SF)	Units	Size (SF)
Studio Units	69	1,163	--	--
1-Bedroom Units	71	761	112	922
2-Bedroom Units	71	1,017	99	1,058
Total	211	979	211	986

Data Source: Axiometrics/RealPage (September 2019)

The overall number of units (211) is the same and the average unit size of all units are almost the same (979 square feet vs. 986 square feet). However, in CoStar's data, the average unit size for studio units (1,163 square feet) are larger than both 1-bedroom units' average size and 2-bedroom units' average size, which is a bizarre result and casts doubt on the CoStar data's accuracy.

Suppose the studio units are reclassified as 1-bedroom units (41 units) and as 2-bedroom units (28 units) based on Axiometrics/RealPage's data, the average unit sizes for KMA's rent survey samples would be revised as the following table shows.

Revised Rent Survey Results (pages 93 to 95)

	KMA Original Rent Survey		Revised	
	Units	Size (SF)	Units	Size (SF)
Studio Units	320	729	251	609
1-Bedroom Units	1,303	805	1,344	816
2-Bedroom Units	941	1,108	969	1,110
Total	2,564	907	2,564	907

The average unit size for 1-bedroom units (+11 square feet) and 2-bedroom units (+2 square feet) increased very modestly. However, the average unit size for studio units decreased by 120 square feet (-16%). This demonstrates how a slight data inaccuracy, while overall still very accurate, could lead to material difference in the average unit size for a unit type (studio units in this situation). Furthermore, the

revised average unit size for studio units (609 square feet) is very close to the average unit size sampled using Axiometrics/RealPage data (597 square feet). Using the results from rent survey samples is a good justification for modeling the unit sizes in the pro formas, but the data user should double check and verify data accuracy.

MADE

IN LONG BEACH



D. Building Efficiency Not Explicitly Stated

Throughout the pro formas, KMA does not explicitly state the net rentable area to gross building area ratio (building efficiency ratio) in each pro forma. Therefore, it is uncertain what are the average unit size by number of bedrooms in its prototype pro formas. Knowing the building efficiency ratio is important for two reasons: (1) It affects construction costs and (2) It affects the calculation of Inclusionary Housing in-lieu fee.

One clue to estimate KMA's assumptions on average unit size (and thus building efficiency ratio) is the weighted average unit size in its rent survey for Submarket #1 in Appendix E, Exhibit I. Recall that in Part C above, Beacon imputes that the average unit sizes for 0-bedrooms/studios, 1-bedroom, and 2-bedrooms are 729 square feet, 805 square feet, and 1,108 square feet, respectively.

Pages 60 & 61, Attachment 2 Appendix A Table 1 of the KMA Report

II. <u>Direct Costs</u>		²			
On-Site Improvements/Landscaping	32,870	Sf of Land	\$20 /Sf of Land	\$657,000	
Parking					
At-Grade Spaces	0	Spaces	\$5,000 /Space	0	
Above-Ground Podium Spaces	0	Spaces	\$25,000 /Space	0	
1st Level Subterranean	90	Spaces	\$35,000 /Space	3,150,000	
2nd Level Subterranean	92	Spaces	\$45,000 /Space	4,140,000	
Building Costs	106,312	Sf of GBA	\$125 /Sf of GBA	13,289,000	
Contractor/DC Contingency Allow	20%	Other Direct Costs		4,247,000	
Total Direct Costs	106,312	Sf of GBA	\$240 /Sf of GBA		

I. Gross Income

A. Market Rate Units

		¹			
Studio Units	12	Units @	\$2,569 /Unit/Month	\$370,000	
One-Bedroom Units	48	Units @	\$2,620 /Unit/Month	1,509,000	
Two-Bedroom Units	34	Units @	\$3,304 /Unit/Month	1,348,000	
Three-Bedroom Units	0	Units @	\$0 /Unit/Month	0	

Imputed net rentable areas and building efficiency ratios for each pro forma scenario

	Scenario	Market rate rental project	Inclusionary rental project	Ownership project
Land area	Square Feet	32,870	32,870	43,560
Gross building area	Square Feet	106,312	158,936	80,625
0 bedrooms/studio	units	12	17	4
1 bedroom	units	48	71	32
2 bedrooms	units	34	52	35
Total Units		94	140	71
Weighted Average Unit Size (Rental: from KMA Rent Survey; Ownership: from KMA Condominium Sales Survey)				
0 bedrooms/studio	729 SF (renter) 500 SF (owner)	8,748	12,393	2,000
1 bedroom	805 SF (renter) 750 SF (owner)	38,640	57,155	24,000
2 bedrooms	1,108 SF (renter) 1,100 SF (owner)	37,672	57,616	38,500
Total Net Rentable Area	Square Feet	85,060	127,164	64,500
Gross building area	Square Feet	106,312	158,936	80,625
Building efficiency ratio		$85,060/106,312 = 80\%$	$127,164/158,936 = 80\%$	$64,500/80,625 = 80\%$
Weight avg. per unit size		905	908	908

Source: Beacon Economics calculation based on figures provided in KMA's report

Based on the numbers listed in KMA's pro formas and the results of its rent survey: The imputed building efficiency ratios are 80% for rental projects. Then based on the 80% efficiency ratio, KMA used it to derive prototype unit sizes for ownership projects (see Section IV, Part A of the KMA report). **This method, however, results in different unit sizes between rental and ownership projects.** For studio units in particular, the average unit size for rental projects (729 SF) is 46% larger than that for ownership projects (500 SF).

Most importantly, the 80% building efficiency ratio is unrealistic and incompatible with the City's development standards. An 80% building efficiency ratio for a purely residential development project implies:

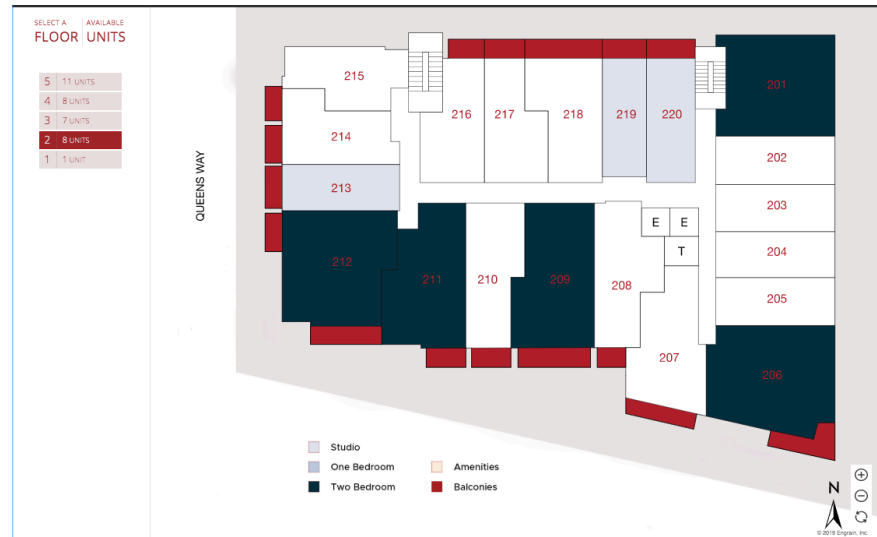
- Elimination of corridors
- Little to no open space (which the City mandates)

- Lack of amenities and facilities such as gym/fitness room, laundry rooms, balconies, etc.

Although a commercial building can usually achieve above 80% efficiency, but for apartment buildings, the efficiency is much lower. An efficient multi-family project typically has an efficiency ratio of 70% to 75% (Meeks, Multifamily Executive, 2005).⁷

The following images show the floor plans of 442 Residences (442 W. Ocean Blvd, Long Beach, CA 90802), a 94-unit multi-family building that finished construction in 2019. The building has the following attributes:

- 5 Floors
- 94 units in total: 20 rooms on floors 2-4 each and 17 rooms on floors 1 and 5 each
- Amenities include: Lounge, mail room, conference room, fitness room, club room and roof deck
- Brand new (completed in 2019) with modern development standards that are the closest to the pro formas



⁷ Meeks, D. (2005). "Cost Cutters: Here's How to Design Class A Projects on a Budget." Multifamily Executive. Hanley Wood Media, Inc. Retrieved October 19, 2019. Retrieved from: https://www.multifamilyexecutive.com/design-development/design/cost-cutters_o



Source: 442 Residences <<https://live442.com/floor-plans/>>

These publicly available floor plans enable Beacon to estimate the net rentable area and the gross area of each floor using ImageJ, an image processing program developed at the National Institute of Health and the Laboratory for Optical and Computational Instrumentation in the University of Wisconsin.⁸ There are two approaches to estimating the building efficiency ratio of each floor:

⁸ For more information, visit the NIH's official website at: <https://imagej.nih.gov/ij/>

- (1) Measure the total area of the rentable units, measure the total building area of each floor, then divide the former by the latter;
- (2) Measure the stairs, corridors, elevators, balconies, and other features and amenities separately, obtain the subtotal area of all of these items, divide the subtotal by the total building area on each floor, and subtract it from one.

Both approaches yielded the same results for each floor with a deviation of with +/- 0.5%. The measured building efficiency for the entire building is presented in the following table:

Building efficiency ratio example: 442 Residences (completed in 2019)

	Floor 1	Floor 2	Floor 3	Floor 4	Floor 5	Total
Building Area	100%	100%	100%	100%	100%	100%
Stairs, Corridors and Elevators	9%	11%	10%	10%	10%	10%
Balcony and Wall	21%	8%	15%	13%	11%	14%
Lounge Room, Mail Room, Conference Room, Leasing Office and Lobby	10%	0%	0%	0%	0%	2%
Fitness, Club Room and Roof Deck	0%	0%	0%	0%	16%	3%
Net Rentable Areas (Building Efficiency Ratio)	60%	81%	75%	77%	63%	71%

E. Open Space Requirements

Note that there is no mention of open space (required by the City) in the KMA report. When constructing pro formas for the project prototypes, it is important to take open space requirements into consideration. In Long Beach, Section 21 of the City's Municipal Code establishes the open space requirements in the City except for the Downtown area, which is governed by the Downtown Plan. The differences in open space requirements—in addition to the differences in land parcel sizes and land value per square foot—imply the aggregation of Midtown and Downtown into one submarket may lead to overly generalized results in the KMA report.

Section 21.31.230 – Usable Open Space⁹ states that In R-3 and R-4 zones, each dwelling unit shall provide fifty percent (50%) of the open space as common open space and fifty percent (50%) as private open space. Common open space refers to a portion of a development permanently set aside to preserve elements of the natural landscape for public or private use. Examples include rooftop or podium garden on the building. Private open space refers to a usable outdoor area such as balconies, terraces, or decks. As for the Downtown area, the following table summarizes the open space standards.

⁹ Retrieved from: https://library.municode.com/ca/long_beach/codes/municipal_code?nodeId=TIT21ZO_CH21.31REDI_DIVIIDEST_21.31.230USOPSP

Open Space Standards, Downtown Plan

TABLE 3-10 OPEN SPACE STANDARDS

Type of Open Space	Requirements			Notes
Common Outdoor Open Space – as a percentage of the lot area	Lot Size	% Common Outdoor Open Space		<ol style="list-style-type: none"> Each project shall provide common outdoor space at grade, podium, or roof level. Public open spaces directly accessible and visible from the public right-of-way are encouraged. Minimum area for common outdoor open space is 1,000 sf for projects of 21 or more new residential units and 500 feet for all other projects. Minimum dimensions of at least one portion of the open space shall measure 40 feet x 12 feet or greater. All common outdoor open space areas shall be well designed. Common open space may include rooftop decks, court game areas, tot lots, swimming pools, landscaped areas, community gardens, and courtyards. At least 10% of the open space area shall be planting.
		Projects with 21+ residential units	All other development projects	
	≤10,000 sf	10	Exempt	
	10,001 - 30,000 sf	15	5	
	>30,000 sf	20	10	
Additional Standards for Projects of 21 or More New Residential Units ⁽¹⁾				
Common Indoor Open Space	Each project shall provide at least one community room of at least 500 sf.			<ol style="list-style-type: none"> The area shall be located adjacent to, and accessible from the common outdoor open space. Area may contain active or passive recreational facilities, meeting space, exercise rooms, computer terminals or other activity space but must be accessible through a common corridor.
Private Open Space	At least 50% of all residential dwelling units shall provide private open space on a balcony, patio, or roof terrace.			<ol style="list-style-type: none"> Minimum area of private open space is 36 sf with a minimum width of 6 feet.

(1) Refer also to Tower Spacing requirements in Section 4, Standards by Building Types - Towers

Submarket 1 consists of the Downtown area and non-Downtown area. For the KMA prototypes presented in Submarket 1:

- If not built in the Downtown portion of the submarket, then these projects likely take place on land zoned for R-4 uses, which require 150 square feet of open space per dwelling unit as specified in Table 31-2A of the Municipal Code.
- If built in the Downtown portion of the submarket, then these projects will be subject to another set of open space requirements that govern Downtown specifically. see Section 3, Part 2, Table 3-10 of the City's Downtown Plan.¹⁰

The 442 Residences example shown previously have both common open space (rooftop deck) and private open space (balconies for each dwelling unit). The discussion of open space requirements is important as it directly affects a development project's building efficiency ratio,

¹⁰ Retrieved from: http://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/advance/downtown/downtownplan_section-3-part-2-reduced

which affects the building cost. Outside of Downtown, for a standard 600 square foot studio unit, the unit itself actually requires 750 square feet of space (dwelling unit plus 150 square feet of open space). In other words, the open space required takes up 20% of the space (150/750). **Even without taking all other building amenities (stairs, elevators, lobby, storage, utilities, corridors) into account, the efficiency ratio is no more than 80%.**

All of the development prototypes in the KMA report are built on lots exceeding 30,000 square feet, which means all will require open space area totaling 20% of the lot size. The tabulations are as follows:

- Rental prototypes (32,870 SF land area): 6,574 SF of open space.
- Ownership prototypes (43,560 SF land area): 8,712 SF of open space.

Under the Downtown scheme, the open space per unit is inversely related to the floor-area-ratio and the open space per unit resulted is typically less than the open space required on land zoned for R-4 use outside of Downtown:

- Rental market rate prototype (FAR = 3.23): 70 SF of open space per unit
- Rental inclusionary prototypes (FAR = 4.84): 47 SF of open space per unit
- Ownership prototypes (FAR = 1.85): 123 SF of open space per unit

Building Efficiency Ratios and Open Space Requirements: Non-Downtown Area

	Market rate rental project	Inclusionary rental project	Ownership project
Total Net Rentable Area	85,060	127,164	64,500
Total Dwelling Units	94	140	71
Open Space Area (150 SF/unit)	14,100	21,000	10,650
Net Rentable Area + Open Space Area	99,160	148,164	75,150
Gross Building Area (KMA)	106,312	158,936	80,625
Remainder allocated for elevators, stairs, corridors, leasing office, mail room, etc.	7,152	10,772	5,475
Remainder as percentage of Gross Building Area (KMA)	6.7%	6.8%	6.8%
Open Space Area as Percentage of Gross Building Area (KMA)	13.3%	13.2%	13.2%

Yet, despite the overall lower open space required per unit, it is still unlikely that any of these prototypes will attain an 80% building efficiency ratio. The following exercises estimate the open space as a percentage of the gross building area (and thus deriving building efficiency) for the KMA project prototypes in (1) Midtown and (2) Downtown.

Recall from the KMA's specifications (gross building area, number of dwelling unit by number of bedrooms, unit mix), Beacon has imputed that the building efficiency ratio is 80% for each prototype. After taking the open space requirements into account, which comprised 13.2% to 13.3% of the gross building areas. The prototypes leave 6.7% to 6.8% allocated for elevators, stairs, corridors, leasing office, mail room, and other sub-areas. In fact, just the corridors will take up most of or more than the remainder allocated in the KMA report.

This implies the prototype projects presented in the KMA report likely did not allot for sufficient open space area. Therefore, **the gross building areas should be higher than the ones specified in the KMA report**, as the building efficiency ratio in the KMA report are too high.

Building Efficiency Ratios and Open Space Requirements: Downtown Area

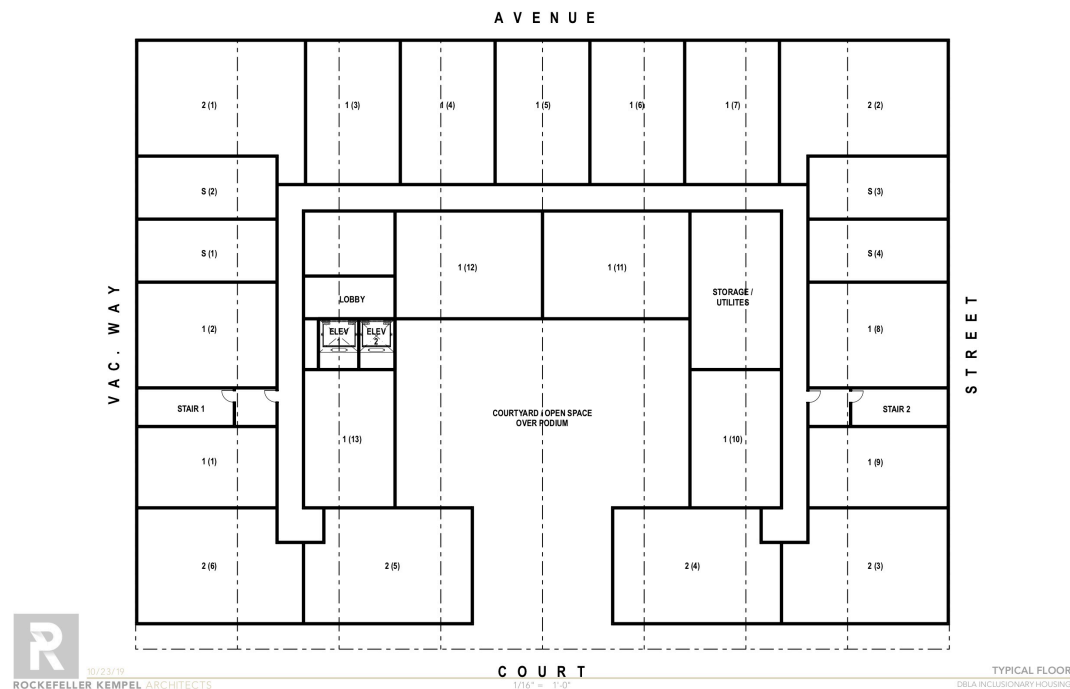
	Market rate rental project	Inclusionary rental project	Ownership project
Total Net Rentable Area	85,060	127,164	64,500
Total Dwelling Units	94	140	71
Open Space Area (20% of land area)	6,574	6,574	8,712
Net Rentable Area + Open Space Area	91,634	133,738	73,212
Gross Building Area (KMA)	106,312	158,936	80,625
Remainder allocated for elevators, stairs, corridors, leasing office, mail room, etc.	14,678	25,198	7,413
Remainder as percentage of Gross Building Area (KMA)	13.8%	15.9%	9.2%
Open Space Area as Percentage of Gross Building Area (KMA)	6.2%	4.1%	10.8%

Recall from the KMA's specifications (gross building area, number of dwelling unit by number of bedrooms, unit mix), Beacon has imputed that the building efficiency ratio is 80% for each prototype. After taking the open space requirements into account, which comprised 6.2% to 10.8% of the gross building areas. The prototypes leave 9.2% to 15.9% allocated for elevators, stairs, corridors, leasing office, mail room, and other sub-areas.

Although the open space required are lower in Downtown than otherwise similar projects on land outside of Downtown, note that these are minimum requirements and actual development projects typically contain more open space than the minimum. In the 442 Residences example, open space areas—balconies, fitness room, club room, and rooftop deck—totaled 17% of the building's gross area, much higher than the minimums illustrated here. Therefore, **the gross building areas should be higher than the ones specified in the KMA report**, as the building efficiency ratio in the KMA report are too high.

Again, Beacon consulted with Rockefeller Kempel Architects (RKA) to draw up sample floor plans based on the available data in the KMA report. These drawings take Long Beach's development standards into full account.

Sample floor plan #1 for residential rental project prototype



Source: D. Rocky Rockefeller, AIA, Consulting Architect, Rockefeller Kempel Architects

The drawing is for the **rental** prototypes in which land area measured 32,870 square feet, with the following parameters:

- The unit measurements are based on data presented in the KMA report for all areas of Long Beach: 525 SF (studio units), 800 SF (1-bedroom units), and 1,100 SF (2-bedroom units).
- There are 23 units in the example.
- The unit mix is as follows: Studio units (4 units), 1-bedroom units (13 units), 2-bedroom units (6 units).
- In addition to the dwelling units and the common open space area, the following features are present: Stairs (2), elevators (2), lobby, storage/utilities, and corridor.

Building Efficiency Ratio Calculation: Rental Residential Project #1

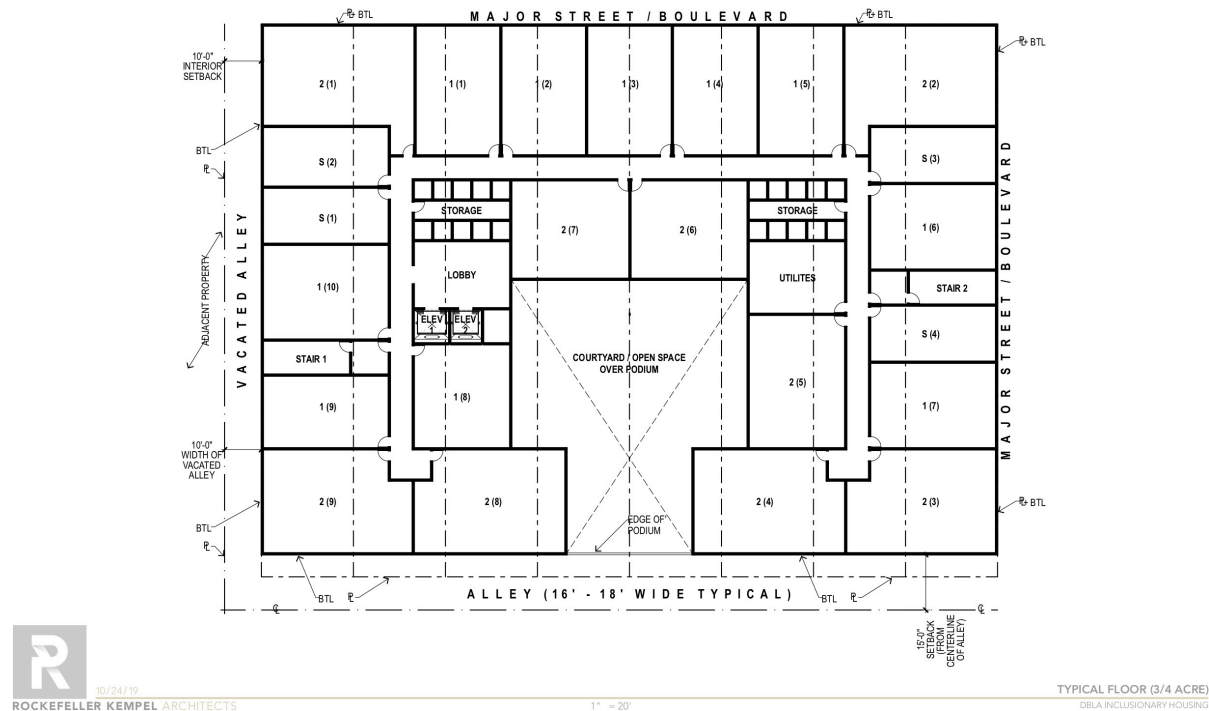
	Percent of Gross Floor Area	Dwelling Units
GBA	100%	
Net Area 1	37%	2(1), 2(2), S(1), S(2), S(3), S(4), 1(2), 1(3), 1(4), 1(5), 1(6), 1(7), 1(8)
Net Area 2	13%	1(9), 1(10), 2(3), 2(4)
Net Area 3	13%	1(1), 1(13), 2(5), 2(6)
Net Area 4	7%	1(11), 1(12)
Net Rentable Area	70%	
Storage/Utilities	3%	
Stairs	2%	
Lobby	2%	
Elevators	1%	
Open Space	15%	
Corridors	7%	

Source: D. Rocky Rockefeller, AIA, Consulting Architect, Rockefeller Kempel Architects; Calculations by Beacon Economics

The percentage of gross floor area of each of the amenities as well as the building efficiency ratio (net rentable area) is presented in the accompanying table. Note that the net rentable area (building efficiency ratio) of 70% is consistent with previous literature and the 442 Residences example. Open space comprises 15% of the gross building area, which is slightly higher than the 13.2% to 13.3% calculation above since the dwelling unit sizes in this example are slightly smaller than the ones that KMA uses in the rental prototype. Recall in the

KMA prototypes that if open space requirements are followed, the prototypes would leave less than 7% for corridors and other amenities and features. Corridors alone comprise 7% of the gross building area, leaving no room for other amenities and features assuming KMA's building efficiency ratio of 80%. These other amenities and features make up 8% of the gross building area.

Sample floor plan #2 for residential rental project prototype



Source: D. Rocky Rockefeller, AIA, Consulting Architect, Rockefeller Kempel Architects

The drawing is for the **rental** prototypes in which land area measured 32,870 square feet.

- The unit measurements are based on data presented in the KMA report for all areas of Long Beach: 525 SF (studio units), 800 SF (1-bedroom units), and 1,100 SF (2-bedroom units).
- There are 23 units in the example.
- The unit mix is different from the previous example, as follows: Studio units (4 units), 1-bedroom units (10 units), 2-bedroom units (9 units).

- In addition to the dwelling units and the common open space area, the following features are present: Stairs (2), elevators (2), lobby, storage rooms (2), utilities, and corridor.

Building Efficiency Ratio Calculation: Rental Residential Project #2

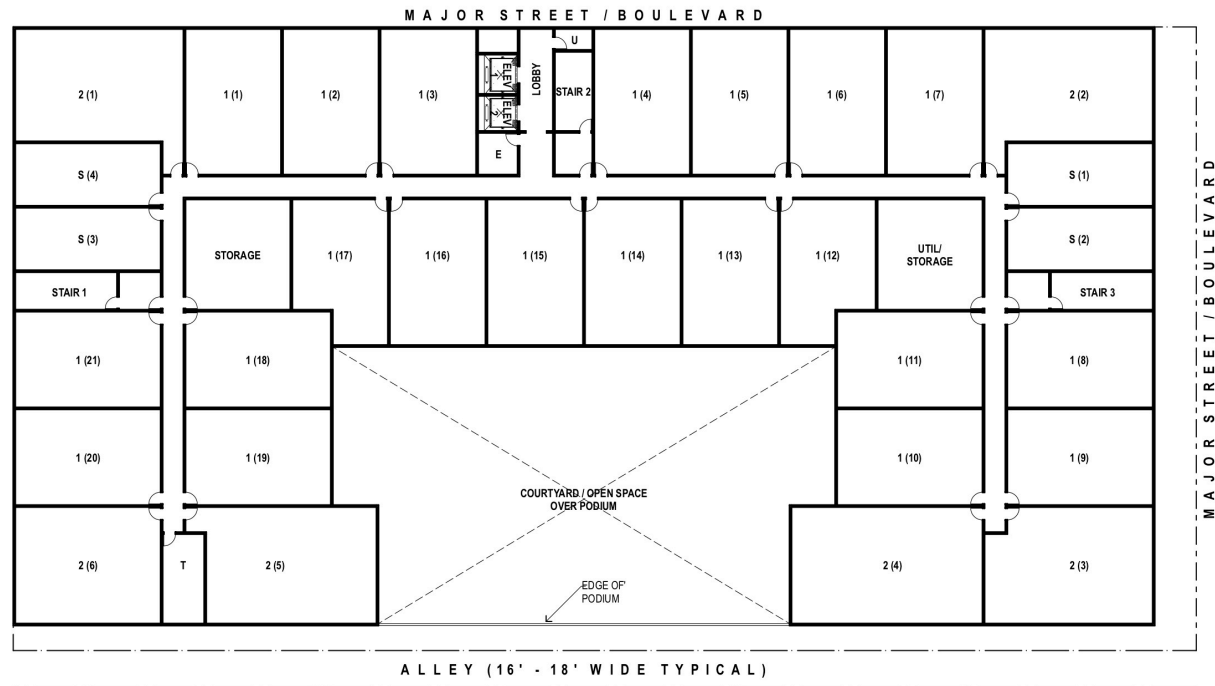
	Percent of Gross Floor Area	Dwelling Units
GBA	100%	
Net Area 1	35%	1(10), S(1), S(2), 2(1), 1(1), 1(2), 1(3), 1(4), 1(5), 2(2), S(3), 1(6)
Net Area 2	16%	S(4), 1(7), 2(3), 2(5), 2(4)
Net Area 3	13%	1(9), 2(9), 2(8), 1(8)
Net Area 4	6%	2(6), 2(7)
Net Rentable Area	69%	
Storage	3%	
Stairs	2%	
Lobby	2%	
Elevators	1%	
Utilities	2%	
Open Space	14%	
Corridors	7%	

Source: D. Rocky Rockefeller, AIA, Consulting Architect, Rockefeller Kempel Architects; Calculations by Beacon Economics

The percentage of gross floor area of each of the amenities as well as the building efficiency ratio (net rentable area) is presented in the accompanying table. Note that the net rentable area (building efficiency ratio) of 69% is consistent with previous literature and the 442 Residences example.

Open space comprises 14% of the gross building area, which is slightly higher than the 13.2% to 13.3% calculation above since the dwelling unit sizes in this example are slightly smaller than the ones that KMA uses in the rental prototype. Recall in the KMA prototypes that if open space requirements are followed, the prototypes would leave less than 7% for corridors and other amenities and features. Corridors alone comprise 7% of the gross building area, leaving no room for other amenities and features assuming KMA's building efficiency ratio of 80%. These other amenities and features make up 10% of the gross building area.

Sample floor plan for residential ownership project prototype



10/24/19
ROCKEFELLER KEMPEL ARCHITECTS

1" = 20'

TYPICAL FLOOR (1 ACRE)
DBLA INCLUSIONARY HOUSING

Source: D. Rocky Rockefeller, AIA, Consulting Architect, Rockefeller Kempel Architects

The drawing is for the **ownership** prototypes in which land area measured 43,560 square feet.

- The unit measurements are based on data presented in the KMA report for all areas of Long Beach: 525 SF (studio units), 800 SF (1-bedroom units), and 1,100 SF (2-bedroom units).
- There are 31 units in the example.
- The unit mix is as follows: Studio units (4 units), 1-bedroom units (21 units), 2-bedroom units (6 units).

- In addition to the dwelling units and the common open space area, the following features are present: Stairs (3), elevators (3), lobby (1), storage/utilities (1), storage room (1), and corridor.

Building Efficiency Ratio Calculation: Ownership Residential Project

	Percent of Gross Floor Area	Dwelling Units
Gross Building Area	100%	
Net Area 1	12%	S(3), S(4), 2(1), 1(1), 1(2), 1(3)
Net Area 2	14%	1(4), 1(5), 1(6), 1(7), 2(2), S(1), S(2)
Net Area 3	7%	2(6), 1(20), 1(21)
Net Area 4	7%	1(8), 1(9), 1(10)
Net Area 5	27%	2(4), 1(10), 1(11), 1(12), 1(13), 1(14), 1(15), 1(16), 1(17), 1(18), 1(19), 2(5)
Net Rentable Area	68%	
Storage/Utilities	2%	
Stairs	2%	
Lobby	1%	
Elevators	1%	
Storage	2%	
Open Space	19%	
Corridors	5%	

Source: D. Rocky Rockefeller, AIA, Consulting Architect, Rockefeller Kempel Architects; Calculations by Beacon Economics

The percentage of gross floor area of each of the amenities as well as the building efficiency ratio (net rentable area) is presented in the accompanying table. Note that the net rentable area (building efficiency ratio) of 68% is consistent with previous literature and the 442 Residences example. Open space comprises 19% of the gross building area, which is higher than the 13.2% to 13.3% calculation above since the dwelling unit sizes in this example are slightly smaller than the ones that KMA uses in the rental prototype.

Due to the more elongated shape of the parcel and therefore the floor plan as well (compared to the previous examples), it is more difficult to design a floor in a more efficient manner. As a result, the open space area is larger percentage wise. Recall in the KMA prototypes that if open space requirements are followed, the prototypes would leave less than 7% for corridors and other amenities and features. Corridors alone comprise 7% of the gross building area, leaving no room for other amenities and features assuming KMA's building efficiency ratio of 80%. These other amenities and features make up 8% of the gross building area.



F. Bicycle Parking Spaces

Similar to open space, there is no mention of bicycle parking spaces (required by the City) in the KMA report. Below is an excerpt from the Long Beach Bicycle Master Plan:¹¹

“The updated Bicycle Master Plan (‘Plan’) continues to build upon a long-standing effort to make Long Beach a city known for its bicycle-friendliness and as an active, healthy, and prosperous place to live, work, and play.”

Given that the prototypes take place primarily in Downtown, the most urban and dense part of the City, the lack of cost estimates for bicycle parking is an issue. In addition, it is reasonable to assume that these prototypes are modern and efficient buildings, designed in an ecological and resource-efficient manner. Therefore, inclusion of bicycle parking spaces is expected. Indeed, Table 3.7 of Section 3, Part 2 of Long Beach’s Downtown Plan states that there should be a minimum of 1 bicycle parking space for every five (5) dwelling units (rounded up). See also City of Long Beach Municipal Code 21.45.400 Section C.¹²

For the prototype projects specified in the KMA report, this means the prototypes should include the following minimum bicycle parking spaces:

- Market Rate Rental Residential Project (94 units): 19 spaces
- Inclusionary Scenarios Rental Residential Projects (140 units): 28 spaces
- Ownership Development Project (71 units): 15 spaces

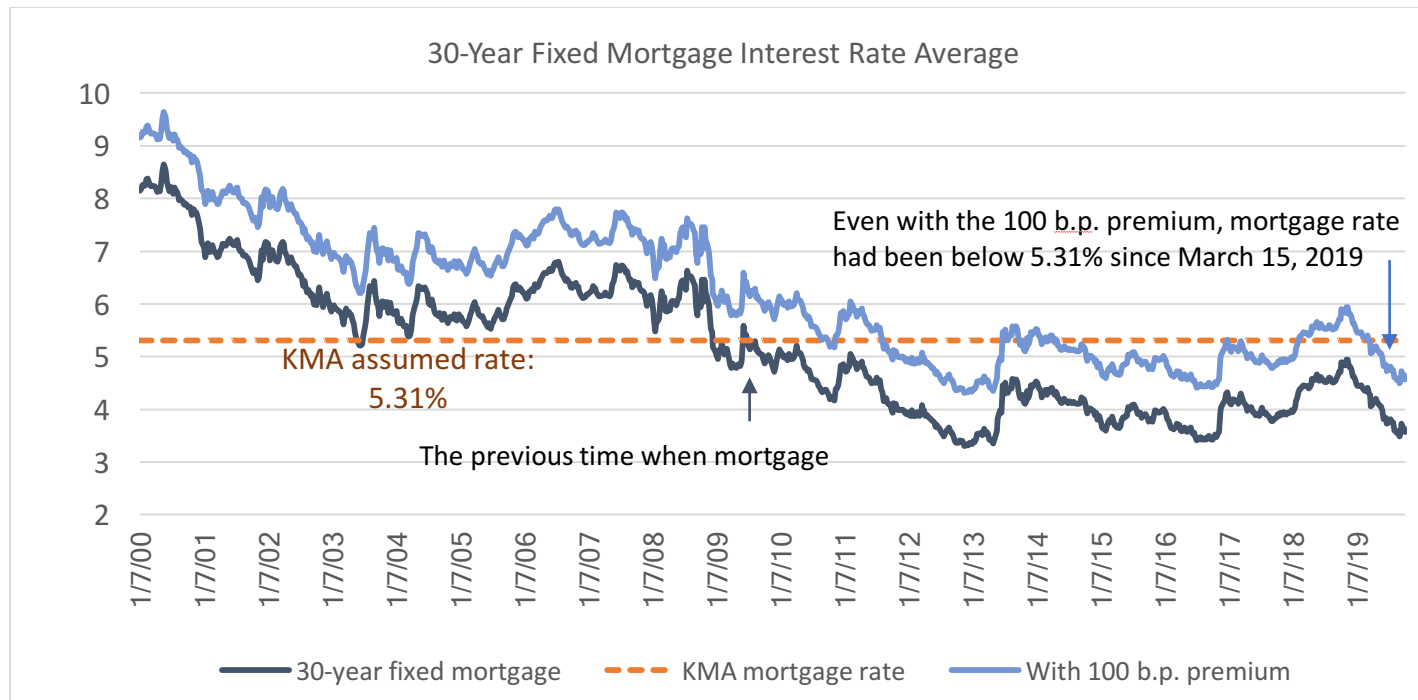
Although it is true that bicycle parking construction cost is a very small portion of the overall development cost, the KMA report did not mention whether the hard costs include bicycle parking construction cost. The term “bicycle parking” or equivalent is mentioned zero times in the KMA report.

¹¹ Source: City of Long Beach Bicycle Master Plan, Downtown Plan and Municipal Code (http://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/advance/downtown/downtownplan_section-3-part-2-reduced)

¹² Table 3-7 Bicycle Parking. Retrieved from: http://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/advance/downtown/downtownplan_section-3-part-2-reduced

G. Mortgage Interest Rate Assumption

KMA claimed that “the mortgage terms used in this Financial Evaluation were based on a 30-year fully amortizing loan at a 5.31% interest rate” (page 31). The 5.31% is based on a 100 basis points (1%) premium applied to the Bankrate site average as of March 15, 2019 for a fixed interest rate loan with a 30-year amortization period (Footnote 13, page 31).



Source: Federal Reserve Economic Data, Federal Reserve Bank of St. Louis

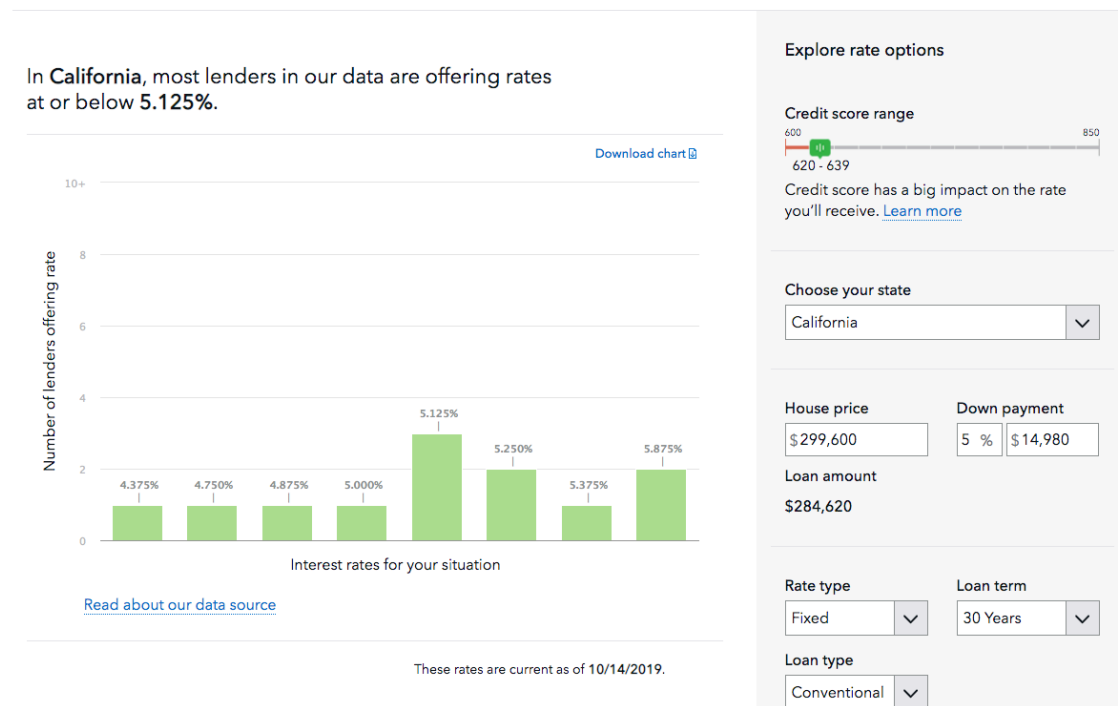
The last time the average mortgage rate exceeded 5.31% was in July 2009, when the Great Recession just ended. In reality, the interest rate for a fixed 30-year term mortgage has been falling in 2019. Mortgage rates fluctuate weekly, banks offer different mortgage rates on the same product (30-year fixed conventional mortgage), and personal factors such as income and credit score all affect the actual mortgage term.

To peg mortgage term based on **one specific date**, and **to tack on a random 100 basis point premium** and call it the supportable mortgage interest rate is a **dangerous proposition**.

In reality, mortgage interest rates are determined by several factors, where the first four factors listed below require additional inputs:

1. **Credit Scores:** Consumers with higher credit scores receive lower interest rates than consumers with lower credit scores.
2. **Home Location:** Many lenders offer slightly different interest rates depending on the state.
3. **Home Price and Loan Amount:** Homebuyers can pay higher interest rates on loans that are particularly small or large.
4. **Down Payment:** A higher down payment is associated with lower risk, which implies a lower interest rate.
5. **Loan Term:** Shorter terms such as a 15-year loan have lower interest rates than longer terms such as a 30-year loan.
6. **Loan Type:** In addition to the conventional mortgage loans, there are FHA, USDA, and VA loans. Rates can differ significantly depending on the type of loan chosen.

Using the CFPB's [Explore Interest Rates](#) tool,¹³ the mortgage rate offered by most lenders is still less than the 5.31% rate KMA purported for a subprime borrower with a credit score of 620-639 in California for a home priced similar to that displayed for a four-bedroom unit in Attachment 3, Appendix B, Exhibit 1.



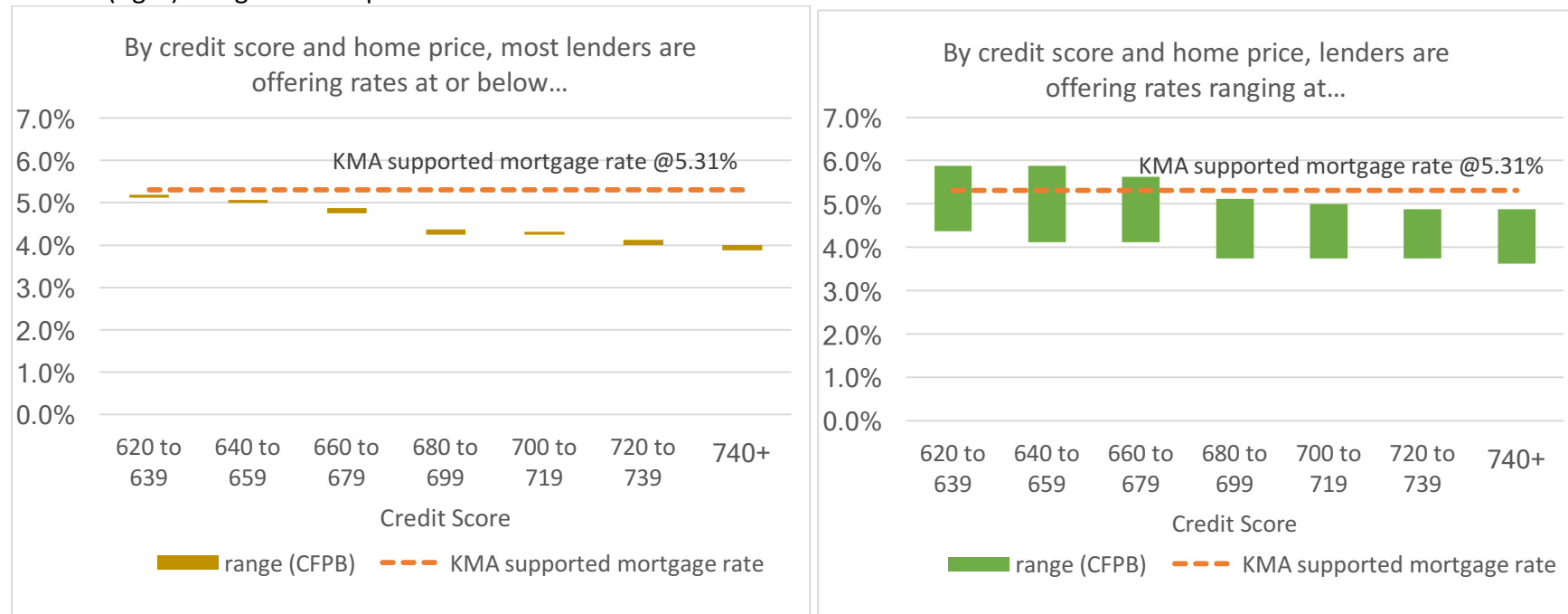
¹³ Source: Consumer Financial Protection Bureau (<https://www.consumerfinance.gov/owning-a-home/explore-rates/>)

Recommendation: The City should conduct independent study of the mortgage market and the credit profiles of potential homebuyers instead of using a mortgage rate that is determined based on a specific date with a random 100 basis point premium tacked on.

Based on the information in KMA's ownership affordability analysis in Attachment 3 Appendix B Exhibit I, KMA assumes:

- Affordable sales price ranging between \$207,900 for a studio to \$299,600 for a four-bedroom unit;
- 5% home buyer down payment; and
- 30-year fixed term.

The following charts display the result of **mortgage rates offered at or below by most lenders** (left) and **range of mortgage rates offered by lenders** (right) using CFPB's Explore Interest Rate tool.



Source: Consumer Financial Protection Bureau (October 14, 2019)

Mortgage rates offered at or below by most lenders (left chart): Even for potential buyers whose credit scores are either poor or fair (and who in reality are not likely to be in the home buying market), most lenders today would offer a more favorable mortgage rate than the KMA's supportable mortgage rate of 5.31%. Yet, these interest rate ranges are only current as of October 14, 2019 and could differ significantly in the future. Nonetheless, the objectives of this exercise are to illustrate (1) how various factors result in a wide range of

mortgage interest rates and (2) how much the average mortgage rate can fluctuate in just a span of 7 months between March 15, 2019 and October 14, 2019—rendering KMA’s analysis outdated.

Range of mortgage rates offered by lenders (right chart): With the exception of potential buyers whose credit scores are either poor or fair (and who in reality are not likely to be in the home buying market), other aspiring homeowners would have a more favorable mortgage rate than the KMA’s supportable mortgage rate of 5.31%. Yet, these interest rate ranges are only current as of October 14, 2019 and could differ significantly in the future. Nonetheless, the objective of this exercise is to illustrate (1) how various factors result in a wide range of mortgage interest rates and (2) how much the average mortgage rate can fluctuate in just a span of 7 months between March 15, 2019 and October 14, 2019—rendering KMA’s analysis outdated.

H. 5% Mortgage Down Payment in Ownership Units Assumption

In KMA's ownership affordability analysis (Attachment 3, Appendix B, Exhibit I; reproduced below), KMA provided no justification why a 5% down payment rate is chosen other than the implication that these homebuyers make a moderate or below income.

APPENDIX B - EXHIBIT I

AFFORDABLE SALES PRICE CALCULATIONS
2019 INCOME STANDARDS
OWNERSHIP HOUSING DEVELOPMENT
INCLUSIONARY HOUSING FEASIBILITY ANALYSIS
LONG BEACH, CALIFORNIA

	Studio Units	One-Bedroom Units	Two-Bedroom Units	Three-Bedroom Units	Four-Bedroom Units
I.	Moderate Income Households				
A. Income Information					
Household Income @ 110% Median	\$56,270	\$64,350	\$72,380	\$80,410	\$86,850
Income Allotted to Housing @ 35% of Income	\$19,690	\$22,520	\$25,330	\$28,140	\$30,400
B. Expenses					
Annual Utilities Allowance	\$1,104	\$1,236	\$1,512	\$1,512	\$1,512
HOA, Maintenance & Insurance	3,120	4,080	5,400	6,000	6,600
Property Taxes @ 1.10% of Affordable Sales Price	2,290	2,550	2,720	3,050	3,300
Total Expenses	\$6,514	\$7,866	\$9,632	\$10,562	\$11,412
C. Income Available for Mortgage	\$13,176	\$14,654	\$15,698	\$17,578	\$18,988
D. Affordable Sales Price					
Supportable Mtg @ 5.31% Interest	\$197,500	\$219,700	\$235,300	\$263,500	\$284,600
Home Buyer Down Payment @ 5% Aff Sales Price	10,400	11,600	12,400	13,900	15,000
Affordable Sales Price	\$207,900	\$231,300	\$247,700	\$277,400	\$299,600

The National Association of Realtor's 2019 Home Buyers and Sellers Generational Trends Report (Exhibit 5.5)¹⁴ finds that the median down payment was 13% among all homebuyers. A homebuyer whose down payment is less than 20% of sales price typically carries private mortgage insurance (PMI), which is not mentioned anywhere in the KMA report. The PMI will lower the income available for mortgage, which reduces the affordable sales price.

¹⁴ "2019 Home Buyers and Sellers Generational Trends Report." National Association of Realtors Research Group. April 2019. Retrieved from: <https://www.nar.realtor/sites/default/files/documents/2019-home-buyers-and-sellers-generational-trends-report-08-16-2019.pdf>

A lower down payment percentage implies lower affordable sales price, which implies a higher in-lieu fee. Not counting first-time homebuyers who leverage first-time homebuyer programs for down payment assistance, it is not likely that a potential homeowner in Long Beach could only a 5% down payment. Furthermore, defaulting the down payment percentage at 5% might encourage people to become homeowners when in reality they might not be ready—this was one of the factors that led to the subprime mortgage crisis in the 2000s—a surge in low or no-down-payment loans.¹⁵ Without understanding the homebuyer profiles in Long Beach, it is premature to assume a uniform 5% down payment.

By assuming a very low mortgage down payment rate and a very high mortgage interest rate (relative to the current environment), KMA’s tabulations of affordable sales price are considerably lower than the more realistic scenarios. This exercise demonstrates how much the affordable sale price changes depending on the down payment percentage and mortgage interest rate (discussed in previous section).

Affordable Sales Prices with Different Mortgage Interest Rates and 5% vs. 20% Down Payment

	Studio Units	1-bedroom Units	2-bedroom Units	3-bedroom Units	4-bedroom Units
Mortgage Interest = 5.31% (KMA Scenario)	\$197,500	\$219,700	\$235,300	\$263,500	\$284,600
Down Payment @ 5% Aff Sales Price (KMA Scenario)	\$10,400	\$11,600	\$12,400	\$13,900	\$15,000
Affordable Sales Price	\$207,900	\$231,300	\$247,700	\$277,400	\$299,600
Mortgage Interest = 5.31% (KMA Scenario)	\$197,508	\$219,664	\$235,313	\$263,494	\$284,630
Down Payment of 20%	\$49,377	\$54,916	\$58,828	\$65,874	\$71,158
Affordable Sales Price	\$246,885	\$274,580	\$294,141	\$329,368	\$355,788
Mortgage Interest = 4.375% ¹⁶	\$219,914	\$244,583	\$262,008	\$293,386	\$316,920
Down Payment of 20%	\$54,979	\$61,146	\$65,502	\$73,347	\$79,230
Affordable Sales Price	\$274,893	\$305,729	\$327,510	\$366,733	\$396,150
Mortgage Interest = 3.57% ¹⁷	\$242,405	\$269,596	\$288,803	\$323,390	\$349,331
Down Payment of 20%	\$60,601	\$67,399	\$72,201	\$80,848	\$87,333
Affordable Sales Price	\$303,006	\$336,995	\$361,004	\$404,238	\$436,664

¹⁵ Wallison, P. J. (2011). “Dissent from the Majority Report of the Financial Crisis Inquiry Commission,” (Washington, DC: American Enterprise Institute, January 2011), 18, www.aei.org.

¹⁶ Interest rate that most lenders are offering rates at or below for a homebuyer with a credit score of 680 to 699. Many potential homeowners likely have higher credit scores and would qualify for lower mortgage interest rates.

¹⁷ Average interest rate of a 30-year conventional mortgage as of October 10, 2019

Compared to the KMA scenario, if assuming a **mortgage interest of 4.375%**, which is the current rate that most lenders are offering at or below to a person with an average credit score of 680 to 699 (which is not great) **and a down payment of 20%** instead of 5%, the affordable sales price increases by:

- Studio Units: \$67,000
- 1-Bedroom Units: \$74,400
- 2-Bedroom Units: \$79,800
- 3-Bedroom Units: \$89,300
- 4-Bedroom Units: \$96,550

In-Lieu Fee Calculations, Baseline (KMA) Assumptions and Revised Assumptions on Mortgage Interest and Down Payment

	KMA Scenario (5.31% Interest Rate & 5% Down Payment)	4.375% Mortgage Interest Rate & 20% Down Payment	3.57% Mortgage Interest Rate & 20% Down Payment
I. Sales Price Difference			
A. Studio Units			
Market Rate Units	\$307,200	\$307,200	\$307,200
Affordable Sales Units	\$207,900	\$274,893	\$303,006
Difference	\$99,300	\$32,307	\$4,194
B. One-Bedroom Units			
Market Rate Units	\$428,900	\$428,900	\$428,900
Affordable Sales Units	\$231,300	\$305,729	\$336,995
Difference	\$197,600	\$123,171	\$91,905
C. Two-Bedroom Units			
Market Rate Units	\$600,700	\$600,700	\$600,700
Affordable Sales Units	\$247,700	\$327,510	\$361,004
Difference	\$353,000	\$273,190	\$239,696
II. Distribution of Total Units			
Studio Units: 5%	\$4,965	\$1,615	\$210
One-Bedroom Units: 45%	\$88,920	\$55,427	\$41,357
Two-Bedroom Units: 50%	\$176,500	\$136,595	\$119,848
III. In-Lieu Fee			
Per Income Restricted Unit	\$270,400	\$193,600	\$161,400
Supportable Inclusionary Housing Percentage	10%	10%	10%
Per Square Foot of GBA*	\$23.80	\$15.00	\$12.50

More importantly, the differences in affordable sales price affect the in-lieu fee amount. The lower the affordable sales price, the higher the in-lieu fee is. Under KMA's scenario (5.31% mortgage interest rate, 5% down payment, and 80% building efficiency ratio), the in-lieu fee is \$23.8 per square foot. As discussed in previous sections, these assumptions are either unrealistic or infeasible. Furthermore, a lower down payment and a higher interest rate both increase the gap between the market rate sales price and affordable sales price, which in turn increases the in-lieu fee estimate. Finally, recall that KMA assumes an 80% efficiency ratio, but as discussed, the efficiency ratio is closer to 70% for multi-family buildings, which is assumed in the two alternative scenarios. Under a scenario of 4.375% mortgage interest rate, 20% down payment, and 70% building efficiency ratio, the in-lieu fee is \$15.0 per square foot, which is 37% lower than KMA's.

III. Critique of KMA's Cost Assumptions

In addition to the non-cost assumptions discussed in Section II, Beacon identifies ten (10) cost assumptions that are either missing or questionable:

- a. Land/Property Acquisition Costs
- b. Inclusionary Policy's Effect on Land Cost Reduction
- c. On-Site Improvement
- d. Off-Site Improvement
- e. Parking
- f. Building Core & Shell
- g. Permit Fees
- h. Financing Costs
- i. Market Rate Unit Rent Discrepancy
- j. Condominium Sales Price Differences

Each of these assumptions is discussed individually in this Section.



A. Land/Property Acquisition Costs

Land/property acquisition cost is the purchase price paid and the related closing costs to acquire a parcel of land including the structure(s) that sit(s) on top of it. Since Downtown Long Beach is built out, land acquired for residential development projects usually does NOT imply vacant land but a site with some properties occupied. The supply of land is fixed (completely inelastic), thus the price of land is determined solely by demand.

Land area and acquisition cost summary in KMA's prototypes

	Market rate rental project	Inclusionary rental project	Ownership project
Land Area (SF)	32,870 sq. ft.	32,870 sq. ft.	43,560 sq. ft.
Property Acquisition Cost	\$6,738,000	\$6,738,000	\$5,881,000
Cost per Square Foot	\$205/ sq. ft.	\$205/ sq. ft.	\$135/ sq. ft.

Source: Keyser Marston Associates, Inc.

Note: The land/property acquisition costs summarized here does not take the 30% land cost reduction into account as a result of Inclusionary Housing implementation. This is discussed later.

The land/property acquisition costs in KMA's pro formas are definitely too low, especially for ownership projects. KMA does not attach recent land sales transactions that justify the \$205/SF in rental project and \$135/SF in ownership project. Here are some recent land/property acquisitions.

List of Recent Land/Property Acquisitions

Name	Address	Purchase Date	Purchase Price	Land SF	Price/Land SF
N/A	1105 Long Beach Blvd.	Mar-17	\$4,500,000	6,568	\$685.14
Residential Project*	810 Pine Ave.	Jun-17	\$1,000,000	7,456	\$134.12
Residential Project	507 N. Pacific Ave.	Feb-17	\$5,000,000	46,522	\$107.48
Pacific-Pine	635 Pine Ave./636 Pacific Ave.	Aug-18	\$4,800,000	7,401	\$648.56
Residential Project	1112 Locust Ave.	Dec-18	\$1,625,000	7,398	\$219.65
Mixed-Use Project	1101-1157 Long Beach Blvd.	Nov-16	\$4,500,000	31,210	\$144.18
Hotel Project	107 Long Beach Blvd.	Mar-16	\$1,040,000	2,100	\$495.24
The Alamitos	101 Alamitos Ave.	Jul-16	\$3,100,000	15,035	\$206.19
The Beacon	1201-1235 Long Beach Blvd.	Nov-17	\$11,414,000	64,469	\$177.05
The Place	495 The Promenade N.	Aug-17	\$18,288,462	25,165	\$726.74
AMLI Park Broadway	245 W. Broadway	Oct-15	\$15,000,000	74,484	\$201.39
The Linden	434 E. 4th St.	Jun-17	\$3,208,500	15,043	\$213.29
	Weighted avg. price/land SF				\$242.61

Source: REIS, Loopnet, RealtyTrac, and Property Shark

*Being developed by Global Premier Development, this is a senior (55+) assisted living residential project.

Except for the property on 1105 Long Beach Blvd, all of these transactions are also listed in the City of Long Beach's Downtown Plan Update: 2018 in Review, where the projects are currently under construction or newly constructed. Land acquisition costs vary by location and use:

- 810 Pine Ave., which is planned for senior assisted living on the inexpensive end; and
- The Pacific-Pine project's land acquisition cost (\$648.56/SF) is over three times as much as the KMA's estimated land cost for rental projects (\$205/SF) and 4.8 times as much as the land cost for ownership projects (\$135/SF).

Note that the \$242.61 average is based on recent past sales transactions; the average land/property acquisitions costs have likely increased today.

B. Inclusionary Policy's Effect on Land Cost Reduction

In Section II, Part B of the KMA report, KMA states the following, “A significant number of California Inclusionary Housing programs have been based on the assumption that a policy that results in a +/- 30% reduction in land costs comports with the requirements.”

B. PROGRAM FOUNDATION

The courts have held that affordable housing is a “public benefit,” and that locally imposed Inclusionary Housing programs are a legitimate means of providing this public benefit. The courts have tempered this with the requirement that the Inclusionary Housing obligations cannot be confiscatory, and they cannot deprive a property owner of a fair and reasonable return on their investment. However, no guidance is provided as to how these requirements should be met.

A significant number of California Inclusionary Housing programs have been based on the assumption that a policy that results in a +/- 30% reduction in land costs comports with the requirements. This KMA Financial Evaluation is focused on identifying income and affordability standards that would fall within that parameter.

Section II, Part B of the KMA Report.

The shortfall between development cost, which exceed supportable investment in every non-market rate scenario, is attributed to land cost reduction to meet the feasible inclusionary percentage. The rationale stems from the thinking that the cost burden is substantially or entirely taken out of the price developers are willing to pay for land (Mallach, 1984).¹⁸

Based on the 30% reduction, KMA reduced land acquisition cost where the difference between the normal sales price and reduced sales price are used to derive the supportable inclusionary percentage. For rental inclusionary projects, the difference between development costs and supportable investments is used to reduce land cost. The difference is about 30% of the land cost depending on the scenario.

¹⁸ Mallach, A. (1984). “Inclusionary Housing Programs: Policies and Practices.” Center for Urban Policy Research, Rutgers University.

Similarly, for ownership moderate income project, the difference between development costs and funds available to development costs is used to reduce land cost. The difference is 32% of land cost.

KMA Report Land Cost Reduction Summary

	Inclusionary rental project: moderate income alternative	Inclusionary rental project: low income alternative	Inclusionary rental project: very low income alternative	Inclusionary rental project: 20% VLI & 80% LI	Inclusionary rental project: 80% VLI & 20% LI	Inclusionary rental project: 70% LI & 30% moderate income	Moderate income alternative ownership project
Development Costs	\$57,208,000	\$57,104,000	\$57,110,000	\$57,104,000	\$57,110,000	\$57,092,000	\$31,187,000
Supportable Investments/Funds Available for Investments	\$55,199,000	\$55,180,000	\$55,088,000	\$55,106,000	\$55,162,000	\$55,217,000	\$29,304,000
Difference (shortfall)	\$2,009,000	\$1,924,000	\$2,022,000	\$1,998,000	\$1,948,000	\$1,875,000	\$1,883,000
Land Cost	\$6,738,000	\$6,738,000	\$6,738,000	\$6,738,000	\$6,738,000	\$6,738,000	\$5,881,000
Difference as percentage of land cost	29.80%	28.60%	30.00%	29.70%	28.90%	27.80%	32.00%

Source: Keyser Marston Associates, Inc.

KMA states that “a significant number of California Inclusionary Housing programs have been based on the assumption that a policy that results in a +/- 30% reduction in land costs comports with the requirements.” Perhaps 30% is believed to be the limit that the courts have allowed as not an illegal taking.

Here are some previous literatures that are in line with KMA’s argument:

- In the literature of economics of inclusionary housing policies, economists argue that in the long run, developers of projects subject to special development costs (such as impact fees and inclusionary requirements) will lower prices for developable land, since housing must be produced at competitive prices and rents the market will bear (Porter, 2004).¹⁹
- There exist some previous literatures that suggest the cost burden of inclusionary housing is passed back to landowners in the form of reduced land prices (Rosen, 2016;²⁰ Jacobus, 2015).²¹

¹⁹ Porter, D. R. (2004). “Inclusionary Zoning for Affordable Housing.” Urban Land Institute.

²⁰ David Paul Rosen & Associates (2016). “Inclusionary Housing Study for the City of Portland.”

²¹ Jacobus, R. (2015). “Inclusionary Housing – Creating and Maintaining Equitable Communities.” National Community Land Trust Network, Cornerstone Partnership and Lincoln Institute of Land Policy.

- Conventional economic theory suggests that without providing incentives or offsets to cover the incremental cost of producing the affordable units, to make a development project feasible, other cost components such as the price of land would drop until housing can be produced at competitive prices (Brunick, 2003).²²

The caveat here is that the specific results of the aforementioned studies (and hence **the specific characteristics of the policies**) **depend on local economic and housing market conditions as well as local and state regulatory and political framework. Instead of actually evaluating the potential impact on land price an inclusionary housing program would have locally in Long Beach, KMA applies a blanket 30% land cost reduction.**

Consider the following equation for a market rate development:

$$\text{Land Cost} + \text{Construction Cost} + \text{Financing Cost} + \text{Developer Profit} = \text{Project Value} \quad (1)$$

$$\text{Developer Profit} \geq \text{Threshold Developer Profit} \quad (2)$$

If the City mandates a percentage of units be affordable instead, all else equal, the following changes are applied to the equation:

$$\text{Land Cost} + \text{Construction Cost} + \text{Financing Cost} + \text{Developer Profit} (\downarrow) = \text{Project Value} (\downarrow)$$

A rationally thinking developer would not engage in the project if (2) no longer holds, unless

$$\begin{aligned} &\text{Land Cost} (\downarrow) + \text{Construction Cost} + \text{Financing Cost} + \text{Developer Profit} (\downarrow) = \text{Project Value} (\downarrow) \quad \text{and} \\ &\text{Developer Profit} \geq \text{Threshold Developer Profit} \end{aligned}$$

In other words, if newly imposed inclusionary requirements increase the cost of development, either the price of the land or the developers' profits will have to come down (Calavita and Mallach, 2009). But the discussion thus far fails to consider whether the imposition of inclusionary housing actually reduce land value from a level that is intrinsic to the land, or does it represent the recapture of an increment in land value associated with government action. In the U.S., where property rights are strong, land value capture is not widely recognized as a part of planning practice and land development (Calavita and Mallach, 2009).²³ Instead, incentives (such as density bonus) or cost offsets (such as reduced minimum parking requirements) are deployed to compensate for the additional costs of providing affordable housing. However, given that land is of finite supply and is inelastic in economic literature, landowners have little to no motivation to sell the land less than the price he/she could get in the absence of inclusionary housing requirements.

²² Brunick, N. (2003). "The Impact of Inclusionary Zoning on Development." Business and Professional People for the Public Interest.

²³ Calavita, N. and Mallach, A. (2009). "Inclusionary Housing, Incentives, and Land Value Recapture." Lincoln Institute of Land Policy, Land Lines.

The previous example is an illustration of land residual analysis. Rosen (2004)²⁴ uses the land residual analysis to determine inclusionary housing's impact on housing and land markets in Los Angeles and Long Beach. Land residual analysis is commonly used by real estate developers, lenders and investors to evaluate development financial feasibility and select among alternative uses for a piece of property.

In the Los Angeles prototype, Rosen finds that most of the 10 prototypes analyzed yielded market comparable land values. An exception when land value decreased was adaptive reuse of existing commercial buildings, where no density bonus or parking concessions could reasonably be applied. In the Long Beach prototype, the results were similar.

In reality, land price is a negotiation between the buyers (developers) and sellers (land owners). If development costs are excessive, both parties may agree to part company without concluding a sale. It is not reasonable to assume that land owners would charitably sell land at a 30% discount. Perhaps KMA's examples merely attempt to illustrate that inclusionary housing is only feasible with a 30% decrease in land cost instead of inclusionary housing policies result in a blanket 30% reduction in land value.

²⁴ David Paul Rosen & Associates (2004). "Inclusionary Zoning: The California Experience." National Housing Conference, NHC Affordable Housing Policy Review, vol. 3, issue 1.

C. On-Site Improvement

As mentioned, since Downtown (and Midtown) Long Beach is fairly built out, an acquired land is likely to have a structure (improvement) sitting on top. Therefore, a pro forma analysis should account for demolition costs. Although demolition is a small part of the overall on-site improvement, it is unclear whether KMA's estimated on-site improvement costs include demolition of existing structures. Demolition cost is typically proportionate to the square footage of the structure that is to be demolished. However, there are other cost factors that affect demolition cost. For example, does the building have asbestos? Also, are there prevailing wage requirements?

D. Off-Site Improvement

In addition to on-site improvement, developers are required to have off-site improvement, which involves work or activity within the public-right of way (see City of Long Beach Municipal Code [21.47.030](#)).

Section 21.47.030 (B): Required Improvements—All Projects states that all projects shall be required to provide the following right-of-way improvements as are deemed necessary and applicable by the Director of Public Works:

1. Sidewalk and Parkway. Construction or repair of a sidewalk and parkway adjoining the site. The sidewalk shall have a minimum clear width of five feet (5') with a parkway, or six feet (6') if the sidewalk adjoins the curb;
2. Curb and Gutter. Construction or repair of curbs and gutters adjoining the site. All unused curb cuts shall be replaced with a full-height curb and gutter;
3. Street Trees. As required by Subsection 21.42.060.B.1; and
4. Bicycle Trail. Construction of bicycle trail as required by the "Bike Route System" adopted by the City Council.

Furthermore, Section 21.47.030 (C) states that in addition to the required off-site improvements, **new development projects** requiring site plan review:

1. **Alley Paving.** Construction, replacement, repair or extension of alley paving up to standard width. The alley shall be paved the length of the site. If vehicle access is taken from the alley, the Director of Public Works may also require that the alley be paved to a point where the alley intersects a paved public right-of-way, and curb returns shall be relocated as necessary.
2. **Alley Lighting.** Construct or install on-site alley lighting.
3. **Utilities Relocation.** Relocate utilities as necessary to provide for the improvements outlined above.

Moreover, 21.47.030 (D): Major projects—such as a **new residential development project with at least twenty-one (21) units**—also have additional improvement requirements:

1. **Roadway Paving.** Construction, replacement, repair or extension of roadway paving to standard street width as required in Table 47-1.
2. **Traffic Signals and Street Signs.** Provide a prorated share of the cost of all roadway signal and street sign modifications attributable or partly attributable to the development.
3. **Street Lights.** Install or relocate street lights. This may include widening the right-of-way as necessary.
4. **Utilities Relocation.** Relocate utilities as necessary to provide for the improvements outlined in paragraphs 1 through 3 above.

For all project prototypes presented in the KMA report—new residential development projects ranging from 71 units to 140 units—parts B, C, and D of Section 21.47.030 will apply. Depending on the scope of work involved, off-site improvement costs typically range from one-half to two-thirds of the on-site improvement costs. Given that major new residential development projects require all three types of improvements, off-site improvement cost estimates would be on the high end relative to on-site improvement cost.

E. Parking Construction Cost Estimate

KMA does not provide supporting data that justify the parking construction cost estimates. Stakeholder outreach with developers familiar with Long Beach reveals that these estimates are more in line with the price levels from 2011 to 2012. KMA's cost estimates are at least a few years out of date and are too conservative for two reasons: (1) The square footage per parking space estimate is too low (see Section II Part B of this report) and (2) Parking construction cost per square foot estimate is too low.

Below is a screenshot of KMA's parking cost estimates:

II. Direct Costs	²			
On-Site Improvements/Landscaping		32,870 Sf of Land	\$20 /Sf of Land	\$657,000
Parking	³			
At-Grade Spaces		0 Spaces	\$5,000 /Space	0
Above-Ground Podium Spaces		0 Spaces	\$25,000 /Space	0
1st Level Subterranean		90 Spaces	\$35,000 /Space	3,150,000
2nd Level Subterranean		92 Spaces	\$45,000 /Space	4,140,000
Building Costs		106,312 Sf of GBA	\$125 /Sf of GBA	13,289,000
Contractor/DC Contingency Allow		20% Other Direct Costs		4,247,000
Total Direct Costs		106,312 Sf of GBA	\$240 /Sf of GBA	

In reality, there are many factors that affect parking construction cost:

- **Geography:** regional factors such as the cost of labor (union vs. open shop), availability of materials, higher seismic regions and soil conditions.
- **Subterranean parking:** Parking one level below ground is more expensive than parking at-grade and above-grade. The cost increases more the deeper the level is.
- **Structural system:** A short-span frame is less costly but also less efficient than a long-span frame.
- **Foundation:** Structures built in areas with poor soil conditions require deeper foundation systems will cost more than shallower foundation systems.
- **Total parking spaces:** A smaller project will cost more per space than a larger project.
- **Efficiency:** The higher the square footage per stall, the more expensive per stall.
- **Additional items:** Items such as EV charging stations and storage space will increase the cost.

Parking construction cost per square foot imputed based on KMA's assumptions

	Unit	Market Rate Rental Project	Inclusionary Rental Project	Ownership Project
Land	Square Feet	32,870	32,870	43,560
Parking				
First Level Subterranean	SF per space	365.22	365.22	
	Cost per space	\$35,000	\$35,000	
	Cost per SF	\$95.83	\$95.83	
Second Level Subterranean	SF per space	357.28	386.71	
	Cost per space	\$45,000	\$45,000	
	Cost per SF	\$125.95	\$116.37	
Above-Ground Podium Spaces	SF per space			306.76
	Cost per space			\$25,000
	Cost per SF			\$81.50

Source: Beacon Economics calculation based on available information in the KMA report

Note that these tabulations assume a “built-to-the-line” scenario. If there are setbacks, then the square footage per space would decrease while the cost per square foot would increase. As discussed in Part B of the Section “Missing/Questionable KMA Assumptions Discussion: Non-Cost Assumptions”, KMA’s assumption, it is not feasible to fit 90-92 parking spaces per level underneath a $\frac{3}{4}$ acre lot nor 142 parking spaces. This means a third subterranean level is needed, which is more expensive.

In addition, the parking construction cost per square foot calculated is below Rider Levitt Bucknall’s estimate for the Los Angeles metro area²⁵ for the second quarter of 2019:

- Basement (below-ground): \$130/SF to \$180/SF
- Above ground: \$105/SF to \$125/SF

Using the low end of the range of estimates provided by RLB, the cost differences per space for the first level below-ground, second level below-ground and above-ground levels indicate that KMA’s cost estimates are 10% to 26% (\$5,019 to \$12,479) below the estimates derived using RLB’s low-end parking cost data. The following table depicts the revised parking construction cost estimates.

²⁵ Estimates are only available at selected metropolitan statistical areas.

Revised cost per space estimate with RLB data

	Unit	Market Rate Rental Project	Inclusionary Rental Project	Ownership Project
First Level Subterranean	SF per space	365.22	365.22	
	Revised Cost per space	\$47,479	\$47,479	
	Cost per SF	\$130	\$130	
	Cost Difference	\$12,479	\$12,479	
Second Level Subterranean	SF per space	357.28	386.71	
	Revised Cost per space	\$50,019	\$54,139	
	Cost per SF	\$140	\$140	
	Cost Difference	\$5,019	\$9,139	
Above-Ground Podium Spaces	SF per space			306.76
	Revised Cost per space			\$32,210
	Cost per SF			\$105
	Cost Difference			\$7,210

Source: Rider Levitt Bucknall; calculations by Beacon Economics

The low end of the RLB cost estimates are chosen to demonstrate how low KMA's cost estimates are compared to even the low end of the RLB cost estimates. It is likely that parking construction cost per square foot is above the low-end estimates in Downtown and Midtown Long Beach.

F. Building Core & Shell Construction Cost Estimate

Similar to parking construction cost, the developers we surveyed all concurred that the building core & shell construction cost estimate is too low for every project prototype. The following table summarizes the building cost per gross square foot in KMA's three development prototypes. The building cost per gross square footage is increased by 20% in the inclusionary rental project scenario due to increased density of the project compared to the market rate prototype.

Building cost summary in KMA's prototypes

	Market rate rental project	Inclusionary rental project	Ownership project
Gross Building Area (SF)	106,312 sq. ft.	158,936 sq. ft.	80,625 sq. ft.
Building Cost per SF	\$125/ sq. ft.	\$150/ sq. ft.	\$135/ sq. ft.
Building Cost	\$13,289,000	\$23,840,000	\$10,884,000

These costs are extremely low and unrealistic even for a basic Type VA construction. In addition, KMA provides no supporting documents justifying the low building costs.

2019 Gross Residential Square Footage Cost Estimates: Construction Cost by ZIP Code and City

ZIP Code (First 3 Digits)	City	Apartments	Condos
907xx, 908xx	Long Beach	\$185.29/ sq. ft.	\$197.49/ sq. ft.

Source: RSMeans, The Gordian Group, data compiled by Federal Home Loan Bank of San Francisco

The table above summarizes data from RSMeans for the building cost per gross square foot by type in 2019, which are \$185.29/GSF for apartments and \$197.49/GSF for condominiums. This implies KMA's building cost estimates are 32% below RSMeans' cost estimates for the ownership project prototypes and 33% below for the rental project prototypes.

The next table applies the RSMeans cost estimates (apartments for rental projects and condos for ownership project) and re-project the building costs by prototype.

Building Cost Summary in KMA's Prototypes Using RSMeans Cost Estimates

	Market rate rental project	Inclusionary rental project	Ownership project
Gross Building Area (SF)	106,312 sq. ft.	158,936 sq. ft.	80,625 sq. ft.
Building Cost per SF	\$185.29/ sq. ft.	\$150/ sq. ft.	\$197.49/ sq. ft.
Building Cost	\$19,694,298	\$35,331,473	\$15,922,631
Building Cost Difference	(\$6,405,298) (-33%)	(\$11,491,073) (-33%)	(\$5,038,256) (-32%)

Source: RS Means; Calculations by Beacon Economics

Furthermore, it has been demonstrated in Parts D and E of the previous section that KMA's building efficiency ratio of 80% is too high. This means KMA's gross building square footage (net rentable area divided by the building efficiency ratio) estimates are too low. Adjusting the building efficiency ratio from 80% to 70%—based on the discussions in Section II Parts D and E—the following table shows the revised building cost.

Building Cost Summary in KMA's Prototypes Using RSMeans Cost Estimates and With Updated Building Efficiency Ratio (70%)

	Market rate rental project	Inclusionary rental project	Ownership project
Bldg. Efficiency Ratio (KMA)	80%	80%	80%
Revised Bldg. Efficiency Ratio	70%	70%	70%
Revised Gross Bldg. Area	121,499 sq. ft.	181,641 sq. ft.	92,143 sq. ft.
RS Means Bldg. Cost per SF	\$185.29/ sq. ft.	\$222.35/ sq. ft.	\$197.49/ sq. ft.
Revised Building Cost	\$22,507,769	\$40,378,826	\$18,197,293
Building Cost Difference	(\$9,218,769) (-41%)	(\$16,538,426) (-41%)	(\$7,312,918) (-40%)

Source: RS Means; Calculations by Beacon Economics

The tabulations assume no change in the unit size for studio units (729 SF/unit) in the rental scenarios. The revised pro formas will reflect the updated unit size (609 SF/unit). The low building cost per square foot and gross building area estimates indicate that KMA's building cost estimates are 40% to 41% lower than the true building costs.

G. Public Permits & Fees

In the pro formas, KMA estimated that public permits and fees per unit ranged from \$19,240 to \$20,000. It is not clear how KMA arrived at these estimates. In Long Beach, there are many permits and fees that can be grouped into six major categories: (1) Development Impact Fees, (2) Electrical Permit & Plan Check Fees, (3) Fire Permit & Plan Check Fees, (4) Mechanical Permit & Plan Check Fees, (5) Plumbing Permit & Plan Check Fees, and (6) Building Permit & Plan Check Fees.

Within each major category, there are several fee line items. For example, Development Impact Fees include Fire Facilities Impact Fee, Parks & Recreation Facilities Impact Fee, Police Facilities Impact Fee, School Impact Fee, Sewer Capacity Fees, and Transportation Improvement Fee. In addition to the City mandated fees, there are additional fees administered at the county and state levels such as Los Angeles County Sewer Capacity Fee, Strong-Motion Instrumentation & Seismic Hazard Mapping Fee, and Green Building Standards Fee. As mentioned, an infill project in the heart of Long Beach is likely to encounter water table and methane issues, both of which will require additional public permits & fees.

KMA's estimates of \$19,240 to \$20,000 is doable under the ideal situation. A public permits & fees sheet furnished by Anderson Pacific, LLC suggests that for a recent 315-unit development project in Submarket 1, the total public permits & fees paid per unit was \$23,500. For the purpose of this report, Beacon has elected to keep KMA's public permits & fees estimates. However, one should note that these estimates are on the conservative side.

H. Financing Costs

In the pro formas, KMA has different financing loan interest rates: 3.6% for rental prototypes but 6.0% for ownership prototypes. KMA does not provide an explanation for the 240 basis point spread of the financing loan interest rate in the report—even if ownership projects are deemed more risky by banks and thus require a higher interest rate.

Financing Costs Information for Rental Market Rate Prototype

IV. Financing Costs

Interest During Construction				
Land	⁵	\$6,738,000	Cost	3.6% Avg Rate
Construction	⁶	\$34,194,000	Cost	3.6% Avg Rate
Loan Origination Fees			60% Loan to Cost	2.0 Points
Total Financing Costs				\$1,963,000

¹ Estimated based on a survey of the sales of residentially zoned land in the SUBMARKET between 2016 and 2018.

² Based on the estimated costs for similar uses.

³ Based on 1.0 space for Studio Units; 1.0 space for One-Bedroom Units; 1.0 space for Two-Bedroom Units; 1.0 space for Three-Bedroom Units; and 0.25 spaces per unit for guest parking.

⁴ Based on estimates prepared for other projects within Long Beach.

⁵ Based on an 18 month construction period and a 100% average outstanding loan balance.

⁶ Based on an 18 month construction period and a 60% average outstanding loan balance.

Financing Costs Information for Ownership Market Rate Prototype

IV. Financing Costs

Interest During Construction	⁴			\$1,392,000
Loan Origination Fees		60.0% Loan to Cost	2.5 Points	440,000
Total Financing Costs				\$1,832,000

¹ Estimated based on a survey of the sales of residentially zoned land in Long Beach between 2016 and 2018.

² Based on the estimated costs for similar uses.

³ Based on estimates prepared for other projects within Long Beach.

⁴ Assumes a 6.0% interest cost for debt; an 18 month construction period; a 10 month absorption period; 30% of the units are presold and close during first month after completion; and 2.5 points for loan origination fees.

In addition, lenders are weary of repeating the housing bubble from the 2000s; lending standards have gotten much stricter since the Great Recession. This implies lenders may require a higher risk premium (i.e., charge higher interest rates) than before for the same projects. Finally, the length of loan is also rather short: 18 months assumed in both rental and ownership prototypes. For these kinds of development projects, which are most likely infill projects, often face long delays due to reasons such as local NIMBY oppositions. Recently completed projects such as Huxton, The Linden, The Beacon, and The Alamitos, all took 24 months to 28 months between when construction had begun to when construction was finished.

I. Market Rate Unit Rent Discrepancy

As discussed in Part C of Section II of this report, the market rate unit rent that KMA uses in the pro formas are higher than the market rate unit rent gathered from KMA's rent survey in Attachment 2, Appendix E, Exhibit I. The differences are summarized below.

Market Rate Monthly Rent Comparison in the KMA Report

	From rent survey (Attachment 2 Appendix E Exhibit I)	As shown in the pro formas and Section IIIC of the KMA report	Difference	Difference (Percent)
Studio Units	\$2,179	\$2,569	\$390	17.90%
1-Bedroom Units	\$2,370	\$2,620	\$250	10.50%
2-Bedroom Units	\$3,017	\$3,304	\$287	9.50%

Source: Keyser Marston Associates

The difference is the greatest for studio units, where rent is 18% higher in the pro formas. The higher rental rates paint a rosier picture for developer return than actual, which KMA in turn concludes a higher supportable inclusionary housing percentage and in-lieu fees than actual. Meanwhile, the average unit size (square feet) and unit composition (percentage of units that are studio units, 1-bedroom units, and 2-bedroom units) match with the results from the rent survey.

Note that there is no evidence that newly constructed multi-family units command a higher rent per square foot. There is no correlation between price per square foot and building age using data from both the KMA's rent survey, which is based on data by CoStar ($R^2 = 0.003$) and data from Axiometrics/RealPage ($R^2 = 0.01$). Therefore, while in general, a Class A new dwelling unit would command slightly higher rent than an otherwise identical but older Class B or Class C dwelling unit, there is no evidence that suggests this holds true here.

J. Condominium Sales Price Differences

Similar to the rent discrepancy discussed above, the condominium sales prices that KMA use in the pro formas are higher than those in the condominium sales survey for Submarket 1 in Attachment 3: Appendix C – Exhibit I. In Section IV, Part B of the KMA report, KMA states that “KMA compiled sales data for condominiums sold in Submarket #1 between October 2018 and February 2019. This information is used to establish the average sales price per square foot of building area for studio, one-bedroom and two-bedroom condominium units.” The following table summarizes the differences.

Condominium Sales Price Comparison in the KMA Report

	Studio Units	1-Bedroom Units	2-Bedroom Units
From Sales Survey: Average Sales Price	473	745	1,093
From Sales Survey: Average Unit Size (SF)	\$252,585	\$370,316	\$519,072
Sales Survey: Price per Square Foot	\$534	\$497	\$475
Pro Formas: Average Sales Price	500	750	1,100
Pro Formas: Average Unit Size (SF)	\$307,200	\$428,900	\$600,700
Pro Formas: Price per Square Foot	\$614	\$572	\$546
Percent Difference per Square Foot	15.1%	15.0%	15.0%

Source: Keyser Marston Associates

The price difference per square foot is 15% for all unit types between the sales survey and the figures used in the pro formas. Even if KMA were to account for price appreciation between October 2018 - February 2019 and now, condominium sales prices definitely have not appreciated 15%.

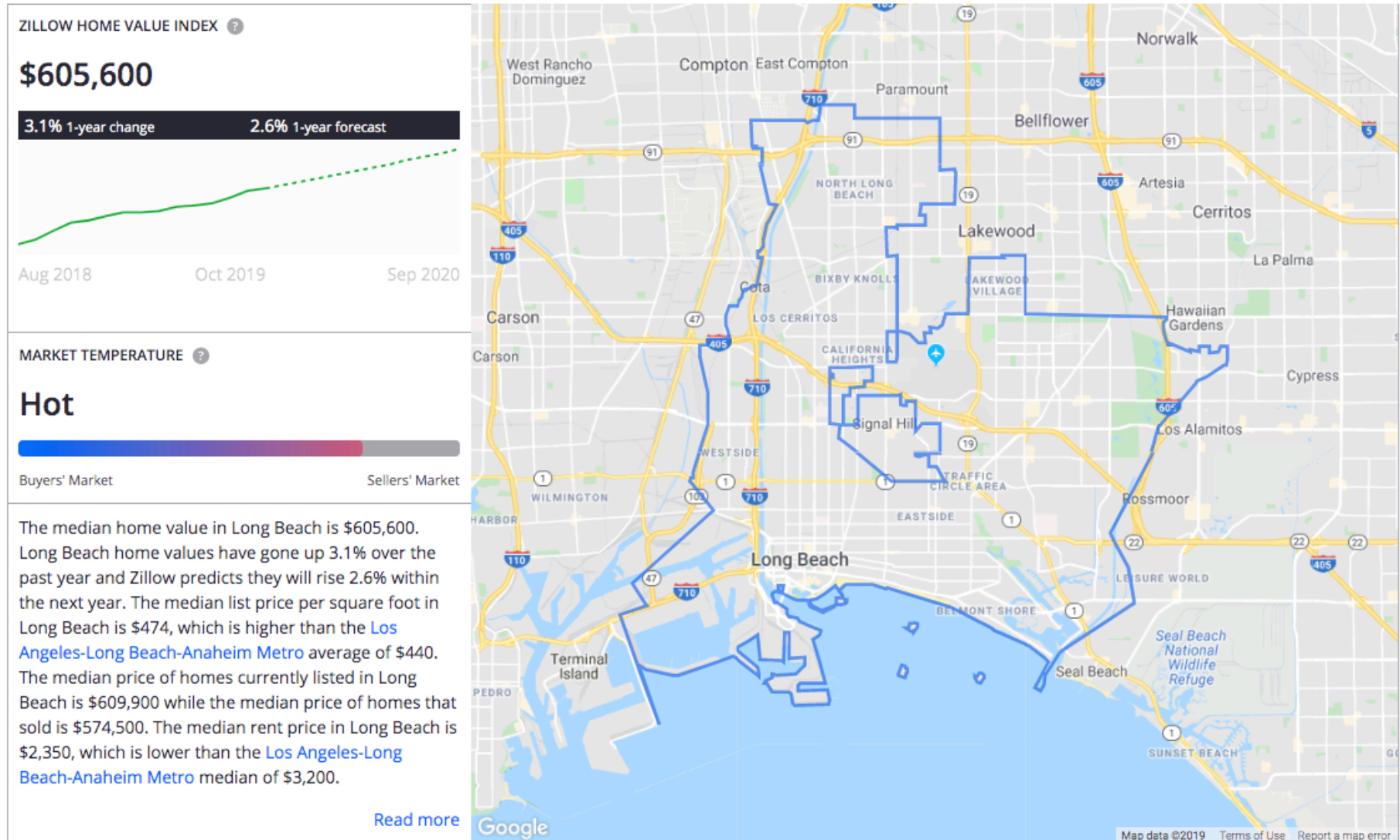
It makes little sense to attribute the 15% difference to home price appreciation, for home price appreciation has cooled down significantly in 2019. Year-over-year home prices appreciated 3.1% and is expected to rise 2.6% next year per Zillow.²⁶ According to Redfin, Downtown Long Beach’s home sales price per square foot actually decreased 5.5% year-over-year.²⁷ Therefore, the sales price used in the pro formas being 15% higher than the price in the sales survey is unjustified.

²⁶ Accessed on October 31, 2019. See: <https://www.zillow.com/long-beach-ca/home-values/>

²⁷ Accessed on October 31, 2019. See: <https://www.redfin.com/neighborhood/9754/CA/Long-Beach/Downtown-Long-Beach/housing-market>

Zillow:

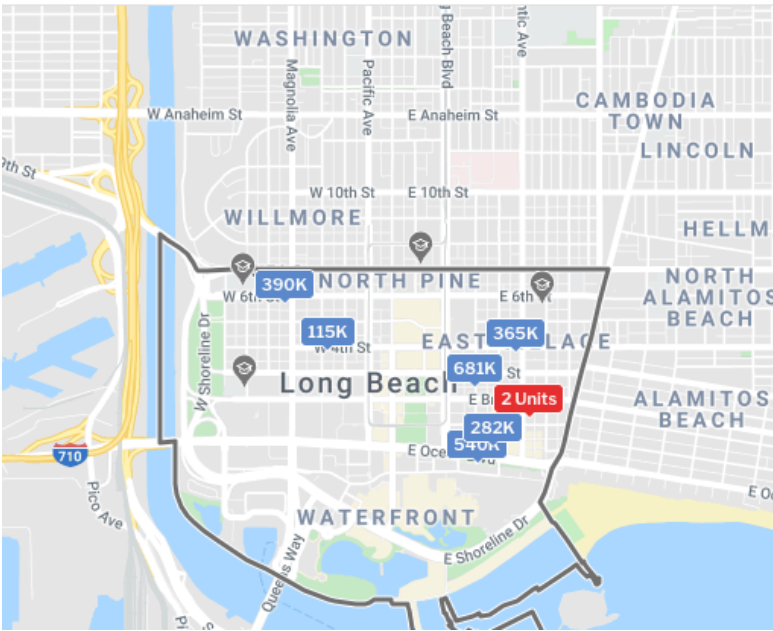
Long Beach Home Prices & Values



Redfin:

REDFIN

Downtown Long Beach



Downtown Long Beach Housing ...

Listings

Market Insights

Home Prices in Downtown Long Beach

Average over the last month

\$409K

Sale Price

+17.2%
since last year

\$452

Sale \$/Sq. Ft.

-5.5%
since last year

1.1%

Under List Price

60

Days on Market

64.3%

Down Payment

28

Total Homes Sold

Compare to [US housing market trends](#)

IV. Putting It All Together: Revised Pro Formas Results

Based on the discussions in Section II and Section III of this report, Beacon Economics re-tabulate revised pro formas.

Revised Assumptions Summary: Rental Project Prototypes

Item	KMA assumption	Revised assumption	Note
Land cost	\$205/SF	\$250/SF	3% higher than \$242.61/SF (weighted vg. cost of land in recent land acquisitions)
Off-Site Improvements	N/A	\$12/SF of Land	60% of On-Site Improvements
Subterranean Parking: 1 st Level	90 spaces	66 spaces	Based on architect's drawing
Subterranean Parking: 2 nd Level	92 spaces	66 spaces	Based on architect's drawing
Subterranean Parking: 3 rd Level	0 spaces	50 spaces	182 spaces (min. required parking spaces) – 66 spaces – 66 spaces
Building efficiency ratio	80%	70%	
Subterranean Parking: 1 st Level	\$35,000/space	\$48,750/space	Based on data from Rider Levitt Bucknall for Q2-2019
Subterranean Parking: 2 nd Level	\$45,000/space	\$52,500/space	Based on data from Rider Levitt Bucknall for Q2-2019
Subterranean Parking: 3 rd Level	N/A	\$56,250/space	Based on data from Rider Levitt Bucknall for Q2-2019
Building Costs (Market Rate Scenario)	\$125/SF of GBA	\$185/SF of GBA	Based on RSMeans' cost estimates for 2019
Building Costs (Inclusionary Scenarios)	\$150/SF of GBA	\$222/SF of GBA	20% over market rate scenario. The building type is likely a Type III instead of Type V
Soft Cost Contingency Allowance	5% of other IC	8% of other IC	
Financing Cost Interest Rate	3.60%	6%	Consistent with ownership project scenarios
Construction Period	18 months	24 months	Based on recently completed projects
Unit size and rent: studio units	729 SF \$2,569	609 SF \$1,820	Based on revised rent survey, prorated
Unit size and rent: 1-br units	805 SF \$2,569	805 SF \$2,370	Based on rent survey
Unit size and rent: 2-br units	1,108 SF \$3,304	1,108 SF \$3,017	Based on rent survey

Revised Assumptions Summary: Ownership Project Prototypes

Item	KMA assumption	Revised assumption	Note
Land cost	\$135/SF	\$250/SF	3% higher than \$242.61/SF (weighted vg. cost of land in recent land acquisitions)
Off-Site Improvements	N/A	\$12/SF of Land	60% of On-Site Improvements
Above-Ground Podium Spaces	\$25,000/space	\$32,200/space	Based on data from Rider Levitt Bucknall for Q2-2019
Building efficiency ratio	80%	70%	
Building Costs	\$135/SF of GBA	\$197.49/SF of GBA	Based on RSMeans' cost estimates for 2019
Soft Cost Contingency Allowance	5% of other IC	8% of other IC	
Construction Period	18 months	24 months	Based on recently completed projects
Unit size and sales price: studio units	500 SF \$307,200	500 SF \$267,000	Based on sales price/SF in condominium sales survey: \$534/SF for studio units
Unit size and sales price: 1-br units	750 SF \$428,900	750 SF \$372,800	Based on sales price/SF in condominium sales survey: \$497/SF for 1-br units
Unit size and sales price: 2-br units	1,100 SF \$600,700	1,100 SF \$522,400	Based on sales price/SF in condominium sales survey: \$479/SF for 2-br units
Mortgage interest rate (low)	5.31%	4.38%	Based on data from CFPB
Mortgage interest rate (high)	5.31%	5.13%	Based on data from CFPB
Down payment (low)	5%	13%	Median down payment in NAR's 2019 Home Buyers and Sellers Generational Trends Report
Down payment (high)	5%	20%	Standard down payment to avoid PMI

Revised Pro Formas Comparison: Rental Market Rate Scenario

KMA Rental Market Rate Pro Forma Summary

	Amount	Amount per GBA (106,312 SF)
Land Cost	\$6,738,000	\$63.38
Total Direct Costs	\$25,483,000	\$239.70
Total Indirect Costs	\$6,749,000	\$63.48
Total Financing Costs	\$1,963,000	\$18.46
Total Development Costs	\$40,932,000	\$385.02
Stabilized Net Operating Income	\$2,212,000	\$20.81
Return on Total Investment	5.4%	

Revised Rental Market Rate Pro Forma Summary

	Amount	Amount per GBA (119,457 SF)
Land Cost	\$8,217,500	\$68.79
Total Direct Costs	\$39,217,265	\$328.30
Total Indirect Costs	\$9,314,743	\$77.98
Total Financing Costs	\$5,634,715	\$47.17
Total Development Costs	\$62,384,223	\$522.23
Stabilized Net Operating Income	\$1,863,119	\$15.60
Return on Total Investment	3.0%	

For direct costs, the increases in parking construction cost, building core & shell, direct cost contingency costs (which is a function of the former two cost components), and the presence of off-site improvement as well as revised building efficiency ratio imply direct cost per square foot is 37% more than KMA's scenario. Total development cost per square foot is 36% more than KMA's scenario.

Return on total investment decreased from 5.4% to 3.0% due to the higher construction costs coupled with rent adjusted downward to match the results of the rent survey. 3.0% ROI is likely lower than the cap rate of the submarket. Therefore, under current circumstances, such project might not materialize.

Revised Pro Formas Comparison: Rental Moderate Income Scenario

KMA Rental Moderate Income Pro Forma Summary

	Amount	Amount per GBA (158,936 SF)
Land Cost	\$6,738,000	\$42.39
Total Direct Costs	\$37,767,000	\$237.62
Total Indirect Costs	\$10,019,000	\$63.04
Total Financing Costs	\$2,686,000	\$16.90
Total Development Costs	\$57,208,000	\$359.94
Stabilized Net Operating Income	\$2,978,555	\$18.74
Return on Total Investment	5.2%	

Revised Rental Moderate Income Pro Forma Summary

	Amount	Amount per GBA (178,749 SF)
Land Cost	\$8,217,500	\$45.97
Total Direct Costs	\$60,551,973	\$338.75
Total Indirect Costs	\$14,243,381	\$79.68
Total Financing Costs	\$7,829,991	\$43.80
Total Development Costs	\$90,842,845	\$508.21
Stabilized Net Operating Income	\$2,559,149	\$14.32
Return on Total Investment	2.8%	

For direct costs, the increases in parking construction cost, building core & shell, direct cost contingency costs (which is a function of the former two cost components), and the presence of off-site improvement as well as revised building efficiency ratio imply direct cost per square foot is 40% more than KMA's scenario. Total development cost per square foot is 39% more than KMA's scenario.

Return on total investment decreased from 5.2% to 2.8% due to the higher construction costs coupled with rent adjusted downward to match the results of the rent survey. 2.8% ROI is likely lower than the cap rate of the submarket. Therefore, under current circumstances, such project might not pencil out. **Even if a 2.8% ROI is accepted, land cost would need to decrease 63% for a 19.3% inclusionary percentage to be feasible.** Therefore, even if a 2.9% ROI is kept, the supportable inclusionary percentage would need to be lower to keep land cost reduction within 30%.

Suppose the 2.9% ROI is acceptable. Further suppose that we wish to keep the land cost reduction at no more than 30%, **the supportable inclusionary percentage decreases from 19.3% to 13.6%.**

Revised Pro Formas Comparison: Rental Low Income Scenario

KMA Rental Low Income Pro Forma Summary

	Amount	Amount per GBA (158,936 SF)
Land Cost	\$6,738,000	\$42.39
Total Direct Costs	\$37,767,000	\$237.62
Total Indirect Costs	\$9,919,000	\$62.41
Total Financing Costs	\$2,681,000	\$16.87
Total Development Costs	\$57,104,000	\$359.29
Stabilized Net Operating Income	\$2,977,000	\$18.73
Return on Total Investment	5.2%	

Revised Rental Low Income Pro Forma Summary

	Amount	Amount per GBA (178,749 SF)
Land Cost	\$8,217,500	\$45.97
Total Direct Costs	\$60,551,973	\$338.75
Total Indirect Costs	\$14,140,565	\$79.11
Total Financing Costs	\$7,820,563	\$43.75
Total Development Costs	\$90,730,600	\$507.59
Stabilized Net Operating Income	\$2,521,654	\$14.11
Return on Total Investment	2.8%	

For direct costs, the increases in parking construction cost, building core & shell, direct cost contingency costs (which is a function of the former two cost components), and the presence of off-site improvement as well as revised building efficiency ratio imply direct cost per square foot is 40% more than KMA's scenario. Total development cost per square foot is 39% more than KMA's scenario.

Return on total investment decreased from 5.2% to 2.8% due to the higher construction costs coupled with rent adjusted downward to match the results of the rent survey. 2.8% ROI is likely lower than the cap rate of the submarket. Therefore, under current circumstances, such project might not pencil out. **Even if a 2.8% ROI is accepted, land cost would need to decrease 77% for a 12.1% inclusionary percentage to be feasible.** Therefore, even if a 2.8% ROI is kept, the supportable inclusionary percentage would need to be lower to keep land cost reduction within 30%.

Suppose the 2.9% ROI is acceptable. Further suppose that we wish to keep the land cost reduction at no more than 30%, **the supportable inclusionary percentage decreases from 12.1% to 7.9%.**

Revised Pro Formas Comparison: Rental Very Low Income Scenario

KMA Rental Very Low Income Pro Forma Summary

	Amount	Amount per GBA (158,936 SF)
Land Cost	\$6,738,000	\$42.39
Total Direct Costs	\$37,767,000	\$237.62
Total Indirect Costs	\$9,925,000	\$62.45
Total Financing Costs	\$2,681,000	\$16.87
Total Development Costs	\$57,110,000	\$359.33
Stabilized Net Operating Income	\$2,970,000	\$18.69
Return on Total Investment	5.2%	

Revised Rental Very Low Income Pro Forma Summary

	Amount	Amount per GBA (178,749 SF)
Land Cost	\$8,217,500	\$45.97
Total Direct Costs	\$60,551,973	\$338.75
Total Indirect Costs	\$14,146,613	\$79.14
Total Financing Costs	\$7,821,443	\$43.76
Total Development Costs	\$90,737,529	\$507.63
Stabilized Net Operating Income	\$2,511,576	\$14.05
Return on Total Investment	2.8%	

For direct costs, the increases in parking construction cost, building core & shell, direct cost contingency costs (which is a function of the former two cost components), and the presence of off-site improvement as well as revised building efficiency ratio imply direct cost per square foot is 40% more than KMA's scenario. Total development cost per square foot is 39% more than KMA's scenario.

Return on total investment decreased from 5.2% to 2.8% due to the higher construction costs coupled with rent adjusted downward to match the results of the rent survey. 2.8% ROI is likely lower than the cap rate of the submarket. Therefore, under current circumstances, such project might not pencil out. **Even if a 2.8% ROI is accepted, land cost would need to decrease 88% for a 11.4% inclusionary percentage to be feasible.** Therefore, even if a 2.8% ROI is kept, the supportable inclusionary percentage would need to be lower to keep land cost reduction within 30%.

Suppose the 2.9% ROI is acceptable. Further suppose that we wish to keep the land cost reduction at no more than 30%, **the supportable inclusionary percentage decreases from 11.4% to 7.1%.**

Revised Pro Formas Comparison: Ownership Market Rate Scenario

KMA Ownership Market Rate Pro Forma Summary

	Amount	Amount per GBA (80,625 SF)
Land Cost	\$5,881,000	\$72.94
Total Direct Costs	\$18,366,000	\$227.80
Total Indirect Costs	\$5,118,000	\$63.48
Total Financing Costs	\$1,832,000	\$22.72
Total Development Costs	\$31,197,000	\$386.94
Net Revenue	\$34,000,000	\$421.71
Return on Total Investment	9.0%	

Revised Ownership Market Rate Pro Forma Summary

	Amount	Amount per GBA (92,143 SF)
Land Cost	\$10,890,000	\$118.19
Total Direct Costs	\$28,996,335	\$314.69
Total Indirect Costs	\$6,375,288	\$69.19
Total Financing Costs	\$3,428,627	\$37.21
Total Development Costs	\$49,690,251	\$539.27
Net Revenue	\$29,561,112	\$320.82
Return on Total Investment	-40.5%	

For direct costs, the increases in parking construction cost, building core & shell, direct cost contingency costs (which is a function of the former two cost components), and the presence of off-site improvement as well as revised building efficiency ratio imply direct cost per square foot is 38% more than KMA's scenario. Total development cost per square foot is 39% more than KMA's scenario. Developer profit went from +9.0% to -40.5% due to the substantially higher construction costs coupled with sales prices adjusted downward to match the results of the condominium sales survey.

The wild swing of developer profit is the result of incremental changes using different cost estimates. Individually, each revised cost estimate, which more closely reflect the current reality, might not swing developer profit to a loss, but together, they result in a 50% change (-40.5% - 9.0% = -50.4%). Using revised, current estimates, this prototype is extremely far from being feasible.

Revised Pro Formas Comparison: Ownership Moderate Income Scenario

KMA Ownership Moderate Income Pro Forma Summary

	Amount	Amount per GBA (80,625 SF)
Land Cost	\$5,881,000	\$72.94
Total Direct Costs	\$18,366,000	\$227.80
Total Indirect Costs	\$5,118,000	\$63.48
Total Financing Costs	\$1,822,000	\$22.60
Total Development Costs	\$31,187,000	\$386.82
Net Revenue	\$32,106,000	\$398.21
Return on Total Investment	2.9%	

Revised Ownership Moderate Income Pro Forma Summary

	Amount	Amount per GBA (92,143 SF)
Land Cost	\$10,890,000	\$118.19
Total Direct Costs	\$28,996,335	\$314.69
Total Indirect Costs	\$6,375,288	\$69.19
Total Financing Costs	\$3,428,627	\$37.21
Total Development Costs	\$49,690,251	\$539.27
Net Revenue	\$28,634,280	\$310.76
Return on Total Investment	-42.4%	

Without land cost reduction, developer profit went from +9.0% to +2.9% in KMA's scenario. In the revised scenario, without land cost reduction, developer profit went from -40.4% to -42.4%. The slight change from -40.4% to -42.4% indicates that the inclusion of moderate income units is not the main problem that makes the project infeasible but rather the fact that the revised cost estimates are altogether very different from KMA's cost estimates, which are unrealistic low to begin with.

Because of the large negative return on total investment, land cost would need to reduce by 233% for the project to break even. Therefore, it is not possible to create an alternative scenario to determine the feasible inclusionary housing by holding land cost reduction at no more than 30%.

This section lists only the rental residential development for single income scenarios and ownership residential development scenarios. Results for rental residential development mixed income scenarios can be viewed in the Appendix Section.

V. Revised Affordability and In-Lieu Fee Analyses

Revised Affordable Rent Calculation and In-Lieu Fee Analysis

Affordable rent calculation is a function of the following: (1) Market rate unit rents, (2) Maximum allowable rent by income level, and (3) Distribution of total units (unit mix). A wider gap between market rate rent and affordable rent results in higher affordability gap per unit. Note that the market rate rents KMA uses in the pro formas are higher than those in the rent survey.

In-lieu fee calculation is a function of the following: (1) Return on total investment, (2) Supportable inclusionary housing percentage, and (3) building efficiency ratio. A higher building efficiency ratio results in a higher in-lieu fee per gross square foot.

The assumptions are as follows:

- Distribution of total units, maximum allowable rent by income level, return on total investment (5.4%), and supportable inclusionary housing percentages are unchanged.
- Market rate unit rents (pro forma -> rent survey) and building efficiency ratio (80% -> 70%) are adjusted accordingly based on the discussion thus far.

The objective of this exercise demonstrates that **the in-lieu fee differs significantly even just tweaking two of the assumptions**. These are **bolded and highlighted in yellow** in the following table. The original in-lieu fees suggested by KMA are bolded highlighted in brown. Compared to the KMA analysis, the revised analysis results in considerably lower in-lieu fees for all income categories:

- Moderate Income: \$37.90 -> \$16.81 (\$21.09 less or 56% lower than KMA scenario)
- Low Income: \$37.90 -> \$17.79 (\$20.11 less or 53% lower than KMA scenario)
- Very Low Income: \$38.50 -> \$17.69 (\$20.81 less or 54% lower than KMA scenario)

Revised Affordable Rent Calculation and In-Lieu Fee Analysis Results

Appendix D - Exhibit II		KMA Scenario			Revised Scenario			Note
		Moderate Income	Low Income	Very Low Income	Moderate Income	Low Income	Very Low Income	
I.	Rent Difference							The market rents are drawn from the pro forma analyses.
	A. Studio Units							
	Market Rate Units	\$2,569	\$2,569	\$2,569	\$2,179	\$2,179	\$2,179	
	Affordable Units	1,373	733	605	1,373	733	605	
	Difference	\$1,197	\$1,836	\$1,964	\$806	\$1,446	\$1,574	
	B. One-Bedroom Units							
	Market Rate Units	\$2,620	\$2,620	\$2,620	\$2,370	\$2,370	\$2,370	
	Affordable Units	1,569	838	691	1,569	838	691	
	Difference	\$1,052	\$1,783	\$1,929	\$801	\$1,533	\$1,679	
	C. Two-Bedroom Units							
	Market Rate Units	\$3,304	\$3,304	\$3,304	\$3,017	\$3,017	\$3,017	
	Affordable Units	1,753	930	766	1,753	930	766	
	Difference	\$1,551	\$2,374	\$2,538	\$1,265	\$2,087	\$2,252	
II.	Distribution of Total Units (note: based on rent survey distribution)							Based on the unit mix distribution applied in the pro forma analysis
	Studio Units	12%	12%	12%	12%	12%	12%	
	One-Bedroom Units	51%	51%	51%	51%	51%	51%	
	Two-Bedroom Units	37%	37%	37%	37%	37%	37%	
	Three-Bedroom Units	0%	0%	0%	0%	0%	0%	
III.	Annual Affordability Gap Per Affordable Unit	\$15,037	\$24,076	\$25,884	\$11,679	\$20,727	\$22,537	
	Less: Property Tax Difference	-3,010	-4,820	-5,180	-3,010	-4,820	-5,180	Based on the rent differential capitalized at a 5.5% rate to establish the value, and a 1.1% property tax rate
	Annual Affordability Gap Per Affordable Unit	\$12,027	\$19,256	\$20,704	\$8,669	\$15,907	\$17,357	
IV.	In-Lieu Fee							
	Per Affordable Unit	\$223,000	\$356,000	\$383,000	\$160,741	\$294,086	\$321,078	Based on the Annual Affordability Gap Per Affordable Unit capitalized at the Threshold Return on Total Investment.
	Supportable Inclusionary Housing Percentage	19.3%	12.1%	11.4%	13.6%	7.9%	7.1%	See Appendix C
	Per Square Foot of GBA	\$37.90	\$37.90	\$38.50	\$19.21	\$20.33	\$20.22	KMA assumes 80% building efficiency ratio
	Per Square Foot of GBA	\$33.16	\$33.16	\$33.69	\$16.81	\$17.79	\$17.69	Assumes 70% building efficiency ratio

Revised Affordable Sales Price Calculation and In-Lieu Fee Analysis

Affordable sales price calculation is a function of the following: (1) Market rate unit sales price, (2) Distribution of total units (unit mix), (3) Income allotted to housing by income level, (4) Mortgage interest rate, and (5) Down payment percentage. Note that (3) Income allotted to housing by income level, (4) Mortgage interest rate, and (5) Down payment percentage determine the Affordable Sales Price.

Also note that KMA:

- Uses higher market rate unit sales prices in the pro formas than those in the condominium sales survey.
- Uses a higher mortgage interest rate than the typical current rates.
- Uses a lower down payment percentage than typical.

... **All of which lower the affordable sales price, which results in higher affordability gap per unit.**

Finally, note that allocating a higher unit percentage distribution toward 2-bedroom units and lower unit percentage distribution toward studio units also results in higher affordability gap per unit. In the ownership scenario, the unit mix that KMA uses is 5% studio units, 45% 1-bedroom units, and 50% 2-bedroom units. Whereas in the rental scenario, the unit mix is 13% studio units, 51% 1-bedroom units, and 36% 2-bedroom units.

The affordable sales price is used to derive in-lieu fees. In-lieu fee calculation is a function of the following: (1) Difference between market rate unit sales price and affordable sales unit price, (2) Supportable inclusionary housing percentage, and (3) Building efficiency ratio.

- A higher difference between market rate and affordable unit sales price results in a higher in-lieu fee per square foot.
- A higher building efficiency ratio results in a higher in-lieu fee per square foot.

The assumptions are as follows:

- Market rate unit sales price (even though the sales price per the sales survey are lower), distribution of total units, income allotted to housing by income level, and supportable inclusionary housing percentages are unchanged.
- Mortgage interest rate, down payment, and building efficiency ratio (80% -> 70%) are adjusted accordingly based on the discussion thus far.

The objective of this exercise demonstrates that **the in-lieu fee differs significantly even just tweaking two of the assumptions**. These are **bolded and highlighted in yellow** in the following table. The original in-lieu fees suggested by KMA are bolded highlighted in brown.

Revised Affordable Sales Price Calculation and In-Lieu Fee Analysis Results

	KMA Scenario (5.31% Interest Rate & 5% Down Payment)	Alternative #1: 4.375% Mortgage Interest Rate & 20% Down Payment	Alternative #2: 4.375% Mortgage Interest Rate & 13% Down Payment	Alternative #3: 5.125% Mortgage Interest Rate & 20% Down Payment	Alternative #4: 5.125% Mortgage Interest Rate & 13% Down Payment
I. Sales Price Difference					
A. Studio Units					
Market Rate Units	\$307,200	\$307,200	\$307,200	\$307,200	\$307,200
Affordable Sales Units	\$207,900	\$274,893	\$252,775	\$252,072	\$231,790
Difference	\$99,300	\$32,307	\$54,425	\$55,128	\$75,410
B. One-Bedroom Units					
Market Rate Units	\$428,900	\$428,900	\$428,900	\$428,900	\$428,900
Affordable Sales Units	\$231,300	\$305,729	\$281,130	\$280,348	\$257,791
Difference	\$197,600	\$123,171	\$147,770	\$148,552	\$171,109
C. Two-Bedroom Units					
Market Rate Units	\$600,700	\$600,700	\$600,700	\$600,700	\$600,700
Affordable Sales Units	\$247,700	\$327,510	\$301,158	\$300,321	\$276,157
Difference	\$353,000	\$273,190	\$299,542	\$300,379	\$324,543
II. Distribution of Total Units					
Studio Units: 5%	\$4,965	\$1,615	\$2,721	\$2,756	\$3,770
One-Bedroom Units: 45%	\$88,920	\$55,427	\$66,497	\$66,848	\$76,999
Two-Bedroom Units: 50%	\$176,500	\$136,595	\$149,771	\$150,190	\$162,271
III. In-Lieu Fee					
Per Income Restricted Unit	\$270,400	\$193,600	\$219,000	\$219,800	\$243,000
Supportable Inclusionary Housing Percentage	10%	10%	10%	10%	10%
Per Square Foot of GBA (80% building efficiency)	\$23.70	\$17.00	\$19.20	\$19.30	\$21.30
Per Square Foot of GBA (70% building efficiency)	\$20.70	\$14.90	\$16.80	\$16.90	\$18.60
Percent Difference Compared to KMA Scenario		-37%	-29%	-29%	-22%

Compared to the in-lieu fee (\$23.70) in the KMA scenario, the in-lieu fees in the alternative scenarios are 22% to 37% lower per gross square foot.

VI. Conclusions

The KMA report examines a number of residential project prototypes to study the effects of a proposed inclusionary housing policy on residential development feasibility in the City of Long Beach. The characteristics of project prototypes selected for inclusion in a financial feasibility study should attempt to be representative of potential projects and conform to the existing conditions in a local jurisdiction otherwise the financial feasibility study is not able to generalize to the local jurisdiction. The KMA report reflects the impact of a proposed inclusionary housing policy on a small subset of project prototypes that – given their characteristics—do not conform to the market and regulatory landscape of Long Beach and ultimately prevent local policymakers from making a fully informed decision on the impact of and inclusionary housing policy on local housing development.

This report raise questions on several of KMA's assumptions (or the lack thereof). In sum, there are five major takeaways that deserve a more in-depth look:

1. Overall development standards: KMA's analyses and assumptions on open space requirements, building efficiency, parking space dimensions are either unrealistic or absent and are not representative of the reality in Midtown/Downtown, which restricts opportunities for development.
2. Land parcel size, dimension and cost reduction resulting from inclusionary policies: Again, KMA's analyses are not representative of actual land parcels across the City. While there is some literature that supports the argument that the cost burden is passed back to the landowners, there is no definitive conclusion that the land cost reduction is 30% in general or in Long Beach. This is highly depending on geographical and market factors as well as local regulations.
3. Construction cost estimates: Many assumptions--especially on hard costs such as building costs, parking construction costs, and off-site improvement costs--are questionable or unstated.
4. Rental Units: Rental prices for unit prototypes are based on questionable or unstated assumptions:
 - a. Unstated building efficient ratios and unknown unit sizes in Pro Formas
 - b. Homogenization of Downtown and Midtown land value and acquisition costs
 - c. Adoption of inaccurate data from commercial rent surveys
 - d. Inconsistencies with KMA's own rent survey
5. Potential homeowner mortgage financing: Mortgage interest rate assumption is artificially high and is based on a point in time. Instead, it should be based on study of local conditions. The down payment assumption of 5% is also extremely low. KMA might have chosen an extremely low down payment rate to justify its artificially high mortgage interest rate.

Beacon Economics' calculations resulted in significantly lower in-lieu fees per gross square foot for the *rental residential* scenarios. Compared to the KMA analysis, the revised analysis results in considerably lower in-lieu fees for all income categories:

- Moderate Income: \$37.90 -> \$16.81 (\$21.09 less or 56% lower than KMA scenario)
- Low Income: \$37.90 -> \$17.79 (\$20.11 less or 53% lower than KMA scenario)
- Very Low Income: \$38.50 -> \$17.69 (\$20.81 less or 54% lower than KMA scenario)

Similarly, Beacon Economics' calculations also resulted in significantly lower in-lieu fees per gross square foot for the *ownership housing* scenarios. Compared to the KMA analysis, the revised analysis results in considerably lower in-lieu fees for the moderate-income category under different mortgage interest rates and mortgage down payment percentages.

Updating the financial feasibility assumptions to more accurately reflect local market conditions raises concerns that KMA's inclusionary housing in-lieu fee recommendations may yield negative impacts on the production of new housing rather than maximizing the number of affordable units via the policy. Given that the project prototypes are not broadly generalizable, subtle changes in assumptions or future changes in market conditions.

VII. Recommendations

Policy makers in Long Beach should be cognizant of how local requirements interact with the math behind housing development given the complexities and costs involved with building new housing units in the City. Anything that drives up project costs will affect the pro forma calculations and influence whether the project is financially feasible.

While an inclusionary housing policy requirement is intended to help achieve an important policy objectives— creating deed-restricted affordable housing units—it may inadvertently push new housing development into the red. Beacon Economics recommends the City consider a mix of incentives to ensure that an inclusionary housing policy can work with new housing development rather than against it. An improperly calibrated inclusionary housing policy would reduce the production of both market rate and affordable housing units in the City, and consequently reduce potential city property, fee, and transfer tax revenues.

The City would do well to consider a number of policy changes that would complement a proposed inclusionary housing policy in order to better address market conditions and cost assumptions reviewed in this report. Residential development is subject to both market and policy forces. Market forces such as local rents, construction costs, and the ability to obtain financing are generally out of the City's control, however, the City has a number of opportunities to ensure the success of an inclusionary housing policy via the policy levers within its control.

Strengthening the Affordable Unit Pipeline

Well-designed inclusionary housing programs set requirements at a level that can be accommodated comfortably given the revenues, costs and incentives available locally. The updated prototype pro formas offer important policy insight the City should consider in its final policy recommendations. While outside of the scope of this specific engagement, exploratory feasibility analysis indicates that city should provide a menu of incentives that can be additive as projects increase their commitment to larger percentages of affordable units.

This menu of incentives will produce an inclusionary housing policy that is more robust and able to weather changes in market conditions and not adversely impact home building during a specific market cycle. A base package of incentives for a base percentage of onsite restricted units would be the starting point – but the menu would allow for increases in affordable unit commitments in exchange for additional incentives. It should be noted, many of these incentives would be ideally deployed in an agreed upon radius around a major transit stop in the City. Incentives to help strengthen project feasibility include:

1. Allow for Increases in residential density the closer the lot is to a major transit stop;
2. Reduce mandatory parking requirements the closer the project is to a major transit stop;

3. Allow for increases in floor-area-ratio (FAR) the closer the project is to a major transit stop;
4. Allow lot coverage increases the closer the project is to a major transit stop;
5. Allow for increases in total height the closer the project is to a major transit stop;
6. Allow for open space decreases in exchange for affordable unit percentages.

A flexible menu of policies within the city's control would allow for varied means of compliance and will help alleviate potential negative impacts. It also increases the probability that projects will be able to exceed the affordable unit thresholds modeled in the KMA report. Lot sizes and shapes in Long Beach dictate development characteristics in combination with local city zoning standards including: setbacks, lot coverage, and allowable density and height. The menu of incentives will help offset many of the feasibility problems highlighted throughout this report that arise from Long Beach specific market conditions.

Finally, the City would be well served to focus on how time impacts costs. As the analysis presented in this report indicates, resources that could otherwise be deployed to supporting affordable units are often diverted to financing costs that grow larger over time. Approval streamlining, which limits cost increases and holding costs, for example, would help support the policy goal of affordable housing units and support the ability to obtain financing. To the extent possible, an inclusionary housing policy would benefit from a menu of incentives that were ministerial in nature. Housing developers will often bypass discretionary incentives fearing can they will complicate the development process and cost more in time and resources.

As a mix of the above incentives begins to help reduce overall costs, exploratory analysis indicates that each project prototype would move back towards feasibility – and if the policy was designed well – could create project pro formas that are healthier than the originals without inclusionary units. If calibrated correctly to account for the overall cost to build this policy could enable developers to build projects that include on-site affordability, without jeopardizing the project by inadvertently undermining financing.

Appendix

Appendix A: Rent Survey

Appendix B: Revised Pro Formas

Appendix C: Revised Pro Formas Controlling
for 30% Land Cost Reduction

Appendix D: Revised Affordability Analysis

Appendix E: Public Permits & Fees

Appendix A: Rent Survey

Submarket #1—Long Beach, California

Appendix A: Rent Survey

Rent Survey—Submarket #1—Long Beach, California—Studio Units

Name	Address	No. of Units- Studio Units	Unit Size (SF)	Average Rents	Per SF	Year Built
AMLI Park Broadway	245 West Broadway	29	736	\$2,507	\$3.41	2019
442 Residences	442 W Ocean Blvd	28	577	\$2,154	\$3.73	2019
The Current	707 E Ocean Blvd	25	693	\$2,472	\$3.57	2016
The Edison	100 Long Beach	33	551	\$2,031	\$3.69	2016
Urban Village	1081 Long Beach Blvd	19	565	\$2,070	\$3.66	2015
Griffis Pine Avenue	404 Pine Avenue	20	578	\$1,986	\$3.44	2003
Sofi at Third	225 W 3rd Street	30	471	\$1,911	\$4.06	1990
Pine at Sixth	595 Pine Ave	15	628	\$1,966	\$3.13	1987
	Minimum		450	\$1,854	\$2.91	
	Maximum		862	\$2,985	\$4.27	
	Weighted Average		597	\$2,192	\$3.67	

Rent Survey—Submarket #1—Long Beach, California—One Bedroom Units

Name	Address	No. of Units- 1 bedroom	Unit Size (SF)	Average Rents	Per SF	Year Built
AMLI Park Broadway	245 West Broadway	143	778	\$2,578	\$3.31	2019
442 Residences	442 W Ocean Blvd	31	710	\$2,527	\$3.56	2019
The Current	707 E Ocean Blvd	144	825	\$2,768	\$3.35	2016
The Edison	100 Long Beach	68	721	\$2,155	\$2.99	2016
Urban Village	1081 Long Beach Blvd	76	731	\$2,102	\$2.87	2015
IMT Gallery	421 W Broadway	164	770	\$2,437	\$3.17	2010
Camden Harbor View	250-300 W Ocean Blvd	195	704	\$2,419	\$3.43	2003
Griffis Pine Avenue	404 Pine Avenue	60	708	\$1,985	\$2.80	2003
Avana on Pine	245 Pine Ave	112	922	\$2,364	\$2.56	1992/2016
Sofi at Third	225 W 3rd Street	74	604	\$1,974	\$3.27	1990
Pine at Sixth	595 Pine Ave	122	700	\$2,048	\$2.92	1989
The Linden	434 E 4th St, Long Beach	29	953	\$2,663	\$2.79	2019
	Minimum		560	\$1,795	\$2.11	
	Maximum		1128	\$4,742	\$5.38	
	Weighted Average		759	\$2,435	\$3.21	

Rent Survey—Submarket #1—Long Beach, California—Two Bedroom Units

Name	Address	No. of Units-2 bedrooms	Unit Size (SF)	Average Rents	Per SF	Year Built
AMLI Park Broadway	245 West Broadway	50	1,153	\$3,366	\$2.92	2019
442 Residences	442 W Ocean Blvd	35	1,115	\$3,324	\$2.98	2019
The Current	707 E Ocean Blvd	54	1,188	\$4,396	\$3.70	2016
The Edison	100 Long Beach	55	1,159	\$3,428	\$2.96	2016
Urban Village	1081 Long Beach Blvd	34	931	\$2,612	\$2.81	2015
IMT Gallery	421 W Broadway	127	1,111	\$2,892	\$2.60	2010
Camden Harbor View	250-300 W Ocean Blvd	343	1,131	\$2,876	\$2.54	2003
Griffis Pine Avenue	404 Pine Avenue	140	1,138	\$2,868	\$2.52	2003
Avana on Pine	245 Pine Ave	99	1,058	\$2,564	\$2.42	1992/2016
Sofi at Third	225 W 3rd Street	56	938	\$2,142	\$2.28	1990
Pine at Sixth	595 Pine Ave	21	1,006	\$2,490	\$2.48	1989
The Linden	434 E 4th St, Long Beach	20	1,173	\$3,486	\$2.97	2019
	Minimum		787	\$1,780	\$1.48	
	Maximum		1,646	\$6,395	\$5.11	
	Weighted Average		1,108	\$3,300	\$2.98	

Appendix B: Revised Pro Formas

Appendix B: Revised Pro Formas

Section	KMA Correspondence	Submarket	Development Type	Income Category	Income Level(s)
Appendix B.1.a	Attachment 2-- Appendix A--Exhibit I	1	Rental Residential Development	Single Income Category	Market Rate Alternative
Appendix B.2.a	Attachment 2-- Appendix B--Exhibit I	1	Rental Residential Development	Single Income Category	Moderate Income Alternative
Appendix B.2.b	Attachment 2-- Appendix B--Exhibit II	1	Rental Residential Development	Single Income Category	Low Income Alternative
Appendix B.2.c	Attachment 2-- Appendix B--Exhibit III	1	Rental Residential Development	Single Income Category	Very Low Income Alternative
Appendix B.3.a	Attachment 2-- Appendix C--Exhibit I	1	Rental Residential Development	Mixed Income Category	20% VLI & 80% LI
Appendix B.3.b	Attachment 2-- Appendix C--Exhibit II	1	Rental Residential Development	Mixed Income Category	80% VLI & 20% LI
Appendix B.3.c	Attachment 2-- Appendix C--Exhibit III	1	Rental Residential Development	Mixed Income Category	70% LI & 30% Moderate Income
Appendix B.4.a	Attachment 3-- Appendix A--Exhibit I	1	Ownership Housing Development	Single Income Category	Market Rate Alternative
Appendix B.4.b	Attachment 3-- Appendix A--Exhibit II	1	Ownership Housing Development	Single Income Category	Moderate Income Alternative

Appendix B.1.a—Table 1
Estimated Development Costs
Submarket #1 | Rental Residential | Market Rate Alternative
Base Zoning: 125 Units/Acre = 94 units

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	50 Spaces	\$56,250	\$2,812,500	
		Building Costs (core and shell)	119,457 SF of GBA	\$185	\$22,134,214	
		Contractor/DC Contingency	20%	Other direct costs	\$6,536,211	
	Total Direct Costs		119,457 SF of GBA	\$328		\$39,217,265
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8%	Direct Costs	\$3,137,381	
		Public Permits & Fees	94 Units	\$20,000	\$1,880,000	
		Taxes, Insurance, Legal & Accounting	3%	Direct Costs	\$1,176,518	
		Marketing	94 Units	\$5,000	\$470,000	
		Developer Fee	5%	Direct Costs	\$1,960,863	
		Soft Cost Contingency Allowance	8%	Other Indirect Costs	\$689,981	
	Total Indirect Costs					\$9,314,743
1IV	Financing Costs					
		Interest During Construction				
		Land	\$8,217,500	Avg Rate	6.0%	
		Land cost as % of outstanding loan balance			100.0%	\$986,100
		Construction	\$54,166,723	Avg Rate	6.0%	
		Construction cost as % of outstanding loan balance			60.00%	\$3,900,004
		Loan Origination Fees				
		Loan to Cost	\$62,384,223	Of costs	60%	\$37,430,534
		Origination Fees Percentage		of Loan to Cost	2%	\$748,611
	Total Financing Costs					\$5,634,715
1V	Total Construction Cost (DC + InDC + Fin. Cost)		94 Units	\$576,242		\$54,166,723
	Total Development Cost (Total Constr. Cost + Land Cost)		94 Units	\$663,662		\$62,384,223

Appendix B.1.a—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Rental Residential | Market Rate Alternative

Base Zoning: 125 Units/Acre = 94 units

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	12 units	\$1,820	\$262,080	
		One-Bedroom Units	48 units	\$2,370	\$1,365,120	
		Two-Bedroom Units	34 units	\$3,017	\$1,230,936	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	94 units			\$2,858,136
		B. Laundry & Miscellaneous Income	94 units	\$25	\$28,200	
	Total Gross Income					\$2,886,336
	Vacancy & Collection Allowance					5% Gross Income -\$144,317
2II	Effective Gross Income					\$2,742,019
2III	Operating Expenses					
		General Operating Expenses	94 units	\$(4,500)	\$(423,000)	
		Property Taxes	94 units	\$(4,700)	\$(441,800)	
		Replacement Reserve Deposits	94 units	\$(150)	\$(14,100)	
	Total Operating Expenses					\$(878,900)
2IV	Stabilized Net Operating Income (2II - 2III)					\$1,863,119
	Operating Expense as Percent of Revenue					-32%

Appendix B.1.a—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | Market Rate Alternative

Base Zoning: 125 Units/Acre = 94 units

2IV	Stabilized Net Operating Income (2II - 2III)	From Table 1	\$1,863,119
1V	Total Development Cost (Total Constr. Cost + Land Cost)	From Table 2	\$62,384,223
3III	Return on Total Investment		3.0%

Appendix B.2.a—Table 1
Estimated Development Costs
Submarket #1 | Rental Residential | Moderate Income Alternative
Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$20,000	\$2,800,000	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect			
		Soft Cost Contingency Allowance	8% Costs		\$1,055,065	
	Total Indirect Costs					\$14,243,381
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,625,345 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,941,463	
		Loan Origination Fees				
		Loan to Cost	\$89,363,695 Of costs	60%	\$53,555,204	
		Origination Fees Percentage		2%	\$1,071,104	
	Total Financing Costs					\$7,829,991
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$590,181		\$82,625,345
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$648,877		\$90,842,845

Appendix B.2.a—Table 2

Estimated Stabilized Net Operating Income and Developer Return
Submarket #1 | Rental Residential | Moderate Income Alternative
Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	14 units	\$1,820	\$305,760	
		One-Bedroom Units	57 units	\$2,370	\$1,621,080	
		Two-Bedroom Units	42 units	\$3,017	\$1,520,568	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	113 units			\$3,447,408
	B. Inclusionary Units					
		Studio Units	3 units	\$1,373	\$49,428	
		One-Bedroom Units	14 units	\$1,569	\$263,592	
		Two-Bedroom Units	10 units	\$1,753	\$210,360	
		Three-Bedroom Units	0 units	\$1,939	\$0	
		Total Units	27 units			\$523,380
		C. Laundry & Miscellaneous Income	140 units	\$25	\$42,000	
	Total Gross Income					\$4,012,788
	Vacancy & Collection Allowance					5% Gross Income -\$200,639
2II	Effective Gross Income					\$3,812,149
2III	Operating Expenses					
		General Operating Expenses	140 units	\$(4,500.00)	\$(630,000.00)	
		Property Taxes	140 units	\$(4,300.00)	\$(602,000.00)	
		Replacement Reserve Deposits	140 units	\$(150.00)	\$(21,000.00)	
	Total Operating Expenses					\$(1,253,000)
2IV	Stabilized Net Operating Income (2II - 2III)					\$2,559,149
	Operating Expense as Percent of Revenue					-33%

Appendix B.2.a—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | Moderate Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

3I	Stabilized Net Operating Income (2II - 2III)			\$2,559,149
	Threshold Return on Total Investment			
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario		5.4%
	Total Supportable Investment (3.0% return per revision)	from market rate scenario		3.0%
3II	Total Development Cost			\$90,842,845
3III	Total Financial Gap (5.4% return per KMA)	(this is where 30% land cost reduction comes from)		-\$43,451,204
	Feasible Inclusionary Percentage		19.3%	
	As a % of Land Value		529%	Decrease
	Effective Developer Return		2.8%	
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)		-\$5,152,946
	Feasible Inclusionary Percentage		19.3%	
	As a % of Land Value		63%	Decrease
	Effective Developer Return		2.8%	

Appendix B.2.b—Table 1

Estimated Development Costs

Submarket #1 | Rental Residential | Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20%		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8%	Direct Costs	\$4,844,158	
		Public Permits & Fees	140 Units	\$19,320	\$2,704,800	
		Taxes, Insurance, Legal & Accounting	3%	Direct Costs	\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5%	Direct Costs	\$3,027,599	
				Other Indirect		
		Soft Cost Contingency Allowance	8%	Costs	\$1,055,065	
	Total Indirect Costs					\$14,140,565
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350	Avg Rate	6.0%	
		Land cost as % of outstanding loan balance			100.0%	\$808,602
		Construction	\$82,513,100	Avg Rate	6.0%	
		Construction cost as % of outstanding loan balance			60.00%	\$5,940,943
		Loan Origination Fees				
		Loan to Cost	\$89,251,450	Of costs	60%	\$53,550,870
		Origination Fees Percentage		of Loan to Cost	2%	\$1,071,017
	Total Financing Costs					\$7,820,563
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$589,379		\$82,513,100
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$648,076		\$90,730,600

Appendix B.2.b—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Rental Residential | Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	15 units	\$1,820	\$327,600	
		One-Bedroom Units	62 units	\$2,370	\$1,763,280	
		Two-Bedroom Units	46 units	\$3,017	\$1,665,384	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	123 units			\$3,756,264
	B. Inclusionary Units					
		Studio Units	2 units	\$733	\$17,592	
		One-Bedroom Units	9 units	\$838	\$90,504	
		Two-Bedroom Units	6 units	\$930	\$66,960	
		Three-Bedroom Units	0 units	\$1,026	\$0	
		Total Units	17 units			\$175,056
		C. Laundry & Miscellaneous Income	140 units	\$25	\$42,000	
	Total Gross Income					\$3,973,320
	Vacancy & Collection Allowance					-\$198,666
2II	Effective Gross Income					\$3,774,654
2III	Operating Expenses					
		General Operating Expenses	140 units	\$(4,500)	\$(630,000)	
		Property Taxes	140 units	\$(4,300)	\$(602,000)	
		Replacement Reserve Deposits	140 units	\$(150)	\$(21,000)	
	Total Operating Expenses					\$(1,253,000)
2IV	Stabilized Net Operating Income (2II - 2III)					\$2,521,654
Operating Expense as Percent of Revenue						-33%

Appendix B.2.b—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

3I	Stabilized Net Operating Income (2II - 2III)			\$2,521,654
	Threshold Return on Total Investment			
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario		5.4%
	Total Supportable Investment (3.0% return per revision)	from market rate scenario		3.0%
3II	Total Development Cost			\$90,730,600
3III	Total Financial Gap (5.4% return per KMA)	(this is where 30% land cost reduction comes from)		-\$44,033,304
	Feasible Inclusionary Percentage		12.1%	
	As a % of Land Value		536%	Decrease
	Effective Developer Return		2.8%	
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)		-\$6,296,161
	Feasible Inclusionary Percentage		12.1%	
	As a % of Land Value		77%	Decrease
	Effective Developer Return		2.8%	

Appendix B.2.c—Table 1
Estimated Development Costs
Submarket #1 | Rental Residential | Very Low Income Alternative
Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$19,360	\$2,710,400	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect			
		Soft Cost Contingency Allowance	8% Costs		\$1,047,897	
	Total Indirect Costs					\$14,146,613
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,523,586 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,941,698	
		Loan Origination Fees				
		Loan to Cost	\$89,261,936 Of costs	60%	\$53,557,161	
		Origination Fees Percentage		2%	\$1,071,143	
	Total Financing Costs					\$7,821,443
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$589,429		\$82,520,029
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$648,125		\$90,737,529

Appendix B.2.c—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Rental Residential | Very Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	15 units	\$1,820	\$327,600	
		One-Bedroom Units	63 units	\$2,370	\$1,791,720	
		Two-Bedroom Units	46 units	\$3,017	\$1,665,384	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	124 units			\$3,784,704
	B. Inclusionary Units					
		Studio Units	2 units	\$605	\$14,520	
		One-Bedroom Units	8 units	\$691	\$66,336	
		Two-Bedroom Units	6 units	\$766	\$55,152	
		Three-Bedroom Units	0 units	\$843	\$0	
		Total Units	16 units			\$136,008
		C. Laundry & Miscellaneous Income	140 units	\$25	\$42,000	
	Total Gross Income					\$3,962,712
	Vacancy & Collection Allowance					-\$198,136
2II	Effective Gross Income					\$3,764,576
2III	Operating Expenses					
		General Operating Expenses	140 units	\$(4,500)	\$(630,000)	
		Property Taxes	140 units	\$(4,300)	\$(602,000)	
		Replacement Reserve Deposits	140 units	\$(150)	\$(21,000)	
	Total Operating Expenses					\$(1,253,000)
2IV	Stabilized Net Operating Income (2II - 2III)					\$2,511,576
Operating Expense as Percent of Revenue						-33%

Appendix B.2.c—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | Very Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

3I	Stabilized Net Operating Income (2II - 2III)			\$2,511,576
	Threshold Return on Total Investment			
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario		5.4%
	Total Supportable Investment (3.0% return per revision)	from market rate scenario		3.0%
3II	Total Development Cost			\$90,737,529
3III	Total Financial Gap (5.4% return per KMA)	(this is where 30% land cost reduction comes from)		-\$44,226,855
	Feasible Inclusionary Percentage		11.4%	
	As a % of Land Value		538%	Decrease
	Effective Developer Return		2.8%	
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)		-\$6,640,526
	Feasible Inclusionary Percentage		11.4%	
	As a % of Land Value		81%	Decrease
	Effective Developer Return		2.8%	

Appendix B.3.a—Table 1

Estimated Development Costs

Submarket #1 | Rental Residential | 20% Very Low Income & 80% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$19,320	\$2,704,800	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect			
		Soft Cost Contingency Allowance	8% Costs		\$1,055,065	
	Total Indirect Costs					\$14,140,565
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,513,100 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,940,943	
		Loan Origination Fees				
		Loan to Cost	\$89,251,450 Of costs	60%	\$53,550,870	
		Origination Fees Percentage		2%	\$1,071,017	
	Total Financing Costs					\$7,820,563
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$589,379		\$82,513,100
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$648,076		\$90,730,600

Estimated Stabilized Net Operating Income and Developer Return
Submarket #1 | Rental Residential | 20% Very Low Income & 80% Low Income Alternative
Base Zoning: 185 Units/Acre = 139.6 units

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Appendix B.3.a—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | 20% Very Low Income & 80% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

3I	Stabilized Net Operating Income (2II - 2III)			\$2,511,576
	Threshold Return on Total Investment			
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario		5.4%
	Total Supportable Investment (3.0% return per revision)	from market rate scenario		3.0%
3II	Total Development Cost			\$90,730,600
3III	Total Financial Gap (5.4% return per KMA)	(this is where 30% land cost reduction comes from)		-\$44,129,993
	Feasible Inclusionary Percentage		12.1%	
	As a % of Land Value		537%	Decrease
	Effective Developer Return		2.8%	
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)		-\$6,470,986
	Feasible Inclusionary Percentage		12.1%	
	As a % of Land Value		79%	Decrease
	Effective Developer Return		2.8%	

Appendix B.3.b—Table 1

Estimated Development Costs

Submarket #1 | Rental Residential | 80% Very Low Income & 20% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$19,360	\$2,710,400	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect Costs			
		Soft Cost Contingency Allowance	8% Costs		\$1,047,897	
	Total Indirect Costs					\$14,146,613
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,523,586 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,941,698	
		Loan Origination Fees				
		Loan to Cost	\$89,261,936 Of costs	60%	\$53,557,161	
		Origination Fees Percentage		2% of Loan to Cost	\$1,071,143	
	Total Financing Costs					\$7,821,443
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$589,429		\$82,520,029
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$648,125		\$90,737,529

Appendix B.3.b—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Rental Residential | 80% Very Low Income & 20% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	15 units	\$1,820	\$327,600	
		One-Bedroom Units	63 units	\$2,370	\$1,791,720	
		Two-Bedroom Units	46 units	\$3,017	\$1,665,384	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	124 units			\$3,784,704
	B. Inclusionary Units: Very Low Income					
		Studio Units	2	\$605	\$14,520	
		One-Bedroom Units	6	\$691	\$49,752	
		Two-Bedroom Units	5	\$766	\$45,960	
		Three-Bedroom Units	0	\$843	\$0	
		Total Units	13			\$110,232
	C. Inclusionary Units: Low Income					
		Studio Units	0 units	\$733	\$0	
		One-Bedroom Units	2 units	\$838	\$20,112	
		Two-Bedroom Units	1 units	\$930	\$11,160	
		Three-Bedroom Units	0 units	\$1,026	\$0	
		Total Units	3 units			\$31,272
		D. Laundry & Miscellaneous Income	140 units	\$25	\$42,000	
	Total Gross Income					
	Vacancy & Collection Allowance					
			5% Gross Income			-\$198,410
2II	Effective Gross Income					
2III	Operating Expenses					
		General Operating Expenses	140 units	\$(4,500)	\$(630,000)	
		Property Taxes	140 units	\$(4,300)	\$(602,000)	
		Replacement Reserve Deposits	140 units	\$(150)	\$(21,000)	
	Total Operating Expenses					
2IV	Stabilized Net Operating Income (2II - 2III)					
	Operating Expense as Percent of Revenue					

Appendix B.3.b—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | 80% Very Low Income & 20% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

3I	Stabilized Net Operating Income (2II - 2III)			\$2,511,576
	Threshold Return on Total Investment			
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario		5.4%
	Total Supportable Investment (3.0% return per revision)	from market rate scenario		3.0%
3II	Total Development Cost			\$90,737,529
3III	Total Financial Gap (5.4% return per KMA)	(this is where 30% land cost reduction comes from)		-\$44,130,166
	Feasible Inclusionary Percentage		12.1%	
	As a % of Land Value		537%	Decrease
	Effective Developer Return		2.8%	
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)		-\$6,465,700
	Feasible Inclusionary Percentage		12.1%	
	As a % of Land Value		79%	Decrease
	Effective Developer Return		2.8%	

Appendix B.3.c—Table 1

Estimated Development Costs

Submarket #1 | Rental Residential | 70% Low Income & 30% Moderate Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$19,240	\$2,693,600	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect			
		Soft Cost Contingency Allowance	8% Costs		\$1,046,553	
	Total Indirect Costs					\$14,128,469
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,394,873 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,932,431	
		Loan Origination Fees				
		Loan to Cost	\$89,133,223 Of costs	60%	\$53,479,934	
		Origination Fees Percentage		2%	\$1,069,599	
	Total Financing Costs					\$7,810,632
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$589,222		\$82,491,073
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$647,918		\$90,708,573

Appendix B.3.c—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Rental Residential | 70% Low Income & 30% Moderate Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	14 units	\$1,820	\$305,760	
		One-Bedroom Units	62 units	\$2,370	\$1,763,280	
		Two-Bedroom Units	45 units	\$3,017	\$1,629,180	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	121 units			\$3,698,220
	B. Inclusionary Units: Low Income					
		Studio Units	2	\$733	\$17,592	
		One-Bedroom Units	6	\$838	\$60,336	
		Two-Bedroom Units	5	\$930	\$55,800	
		Three-Bedroom Units	0	\$1,026	\$0	
		Total Units	13			\$133,728
	C. Inclusionary Units: Moderate Income					
		Studio Units	1 units	\$1,373	\$16,476	
		One-Bedroom Units	3 units	\$1,569	\$56,484	
		Two-Bedroom Units	2 units	\$1,753	\$42,072	
		Three-Bedroom Units	0 units	\$1,939	\$0	
		Total Units	6 units			\$115,032
		D. Laundry & Miscellaneous Income	140 units	\$25	\$42,000	
	Total Gross Income					
	Vacancy & Collection Allowance					
			5% Gross Income			-\$199,449
2II	Effective Gross Income					
2III	Operating Expenses					
		General Operating Expenses	140 units	\$(4,500)	\$(630,000)	
		Property Taxes	140 units	\$(4,300)	\$(602,000)	
		Replacement Reserve Deposits	140 units	\$(150)	\$(21,000)	
	Total Operating Expenses					
2IV	Stabilized Net Operating Income (2II - 2III)					
	Operating Expense as Percent of Revenue					

Appendix B.3.c—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | 70% Low Income & 30% Moderate Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

3I	Stabilized Net Operating Income (2II - 2III)			\$2,536,531
	Threshold Return on Total Investment			
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario		5.4%
	Total Supportable Investment (3.0% return per revision)	from market rate scenario		3.0%
3II	Total Development Cost			\$90,708,573
3III	Total Financial Gap (5.4% return per KMA)	(this is where 30% land cost reduction comes from)		-\$43,735,777
	Feasible Inclusionary Percentage		13.6%	
	As a % of Land Value		532%	Decrease
	Effective Developer Return		2.8%	
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)		-\$5,775,996
	Feasible Inclusionary Percentage		13.6%	
	As a % of Land Value		70%	Decrease
	Effective Developer Return		2.8%	

Appendix B.4.a—Table 1
Estimated Development Costs
Submarket #1 | Ownership Housing Development | Market Rate Alternative

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		43,560 SF	\$250		\$10,890,000
1II	Direct Costs					
	On-site improvement		43,560 SF	\$20	\$871,200	
	Off-site improvement (missing in KMA report)		43,560 SF	\$12	\$522,720	
	Parking					
	At-Grade Spaces	0	Spaces	\$5,000	\$0	
	Above-Ground Podium Spaces	142	Spaces	\$32,200	\$4,572,400	
	1st Level Subterranean	0	Spaces	\$48,750	\$0	
	2nd Level Subterranean	0	Spaces	\$52,500	\$0	
	3rd Level Subterranean	0	Spaces	\$56,250		
	Building Costs (core and shell)	92,143	SF of GBA	\$197	\$18,197,293	
	Contractor/DC Contingency	20%	Other direct costs		\$4,832,723	
	Total Direct Costs	92,143	SF of GBA	\$315		\$28,996,335
				37.0%		
1III	Indirect Costs					
	Architecture, Engineering & Consulting	8%	Direct Costs		\$2,319,707	
	Public Permits & Fees	71	Units	\$20,000	\$1,420,000	
	Taxes, Insurance, Legal & Accounting	3%	Direct Costs		\$869,890	
	Marketing	71	Units	\$5,000	\$355,000	
	Developer Fee	5%	Direct Costs		\$938,448	
	Soft Cost Contingency Allowance	8%	Other Indirect Costs		\$472,244	
	Total Indirect Costs	92,143	SF of GBA	\$69		\$6,375,288
1I V	Financing Costs					
	Interest During Construction					
	Land	\$10,890,000	Avg Rate	6.0%		
	Land cost as % of outstanding loan balance			100.0%	\$588,060	
	Construction	\$38,800,251	Avg Rate			
	Construction cost as % of outstanding loan balance			60.00%	\$2,095,214	
	Loan Origination Fees					
	Loan to Cost	\$49,690,251	\$29,814,151	60%	\$29,814,151	
	Origination Fees Percentage		\$745,354	2.5%	\$745,354	
	Total Financing Costs	92,143	SF of GBA	\$37		\$3,428,627
1V	Total Construction Cost (DC + InDC + Fin. Cost)	71	Units	\$546,482		\$38,800,251
	Total Development Cost (Total Constr. Cost + Land Cost)	71	Units	\$699,863		\$49,690,251

Appendix B.4.a—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Ownership Housing Development | Market Rate Alternative

	Item	Sub-Item	Unit	per unit sales price	total sales price	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	4 units	\$267,000	\$1,068,000	
		One-Bedroom Units	32 units	\$372,800	\$11,929,600	
		Two-Bedroom Units	35 units	\$522,400	\$18,284,000	
		Three-Bedroom Units	0 units	\$0	\$0	
	Total Gross Income		71 units			\$31,281,600
2II	Cost of Sales					
		Commissions	3%	Gross sales revenue	\$938,448	
		Closing	2%	Gross sales revenue	\$625,632	
		Warranty	0.5%	Gross sales revenue	\$156,408	
	Total Cost of Sales					-\$1,720,488
2III	Net Revenue					\$29,561,112

Appendix B.4.a—Table 3

Estimated Development Return

Submarket #1 | Ownership Housing Development | Market Rate Alternative

2IV	Net Revenue	From Table 2	\$29,561,112
1V	Total Development Cost (Total Constr. Cost + Land Cost)	From Table 1	\$49,690,251
3III	Return on Total Investment	-40.5% Total Development Cost	-\$20,129,139

Appendix B.4.b—Table 1

Estimated Development Costs

Submarket #1 | Ownership Housing Development | Moderate Income Alternative

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		43,560 SF	\$250		\$10,890,000
1II	Direct Costs					
	On-site improvement		43,560 SF	\$20	\$871,200	
	Off-site improvement (missing in KMA report)		43,560 SF	\$12	\$522,720	
	Parking					
	At-Grade Spaces	0	Spaces	\$5,000	\$0	
	Above-Ground Podium Spaces	142	Spaces	\$32,200	\$4,572,400	
	1st Level Subterranean	0	Spaces	\$48,750	\$0	
	2nd Level Subterranean	0	Spaces	\$52,500	\$0	
	3rd Level Subterranean	0	Spaces	\$56,250		
	Building Costs (core and shell)	92,143	SF of GBA	\$197	\$18,197,293	
	Contractor/DC Contingency	20%	Other direct costs		\$4,832,723	
	Total Direct Costs	92,143	SF of GBA	\$315		\$28,996,335
				37.0%		
1III	Indirect Costs					
	Architecture, Engineering & Consulting	8%	Direct Costs		\$2,319,707	
	Public Permits & Fees	71	Units	\$20,000	\$1,420,000	
	Taxes, Insurance, Legal & Accounting	3%	Direct Costs		\$869,890	
	Marketing	71	Units	\$5,000	\$355,000	
	Developer Fee	5%	Direct Costs		\$938,448	
	Soft Cost Contingency Allowance	8%	Other Indirect Costs		\$472,244	
	Total Indirect Costs	92,143	SF of GBA	\$69		\$6,375,288
1I V	Financing Costs					
	Interest During Construction					
	Land	\$10,890,000	Avg Rate	6.0%		
	Land cost as % of outstanding loan balance			100.0%	\$588,060	
	Construction	\$38,800,251	Avg Rate			
	Construction cost as % of outstanding loan balance			60.00%	\$2,095,214	
	Loan Origination Fees					
	Loan to Cost	\$49,690,251	\$29,814,151	60%	\$29,814,151	
	Origination Fees Percentage		\$745,354	2.5%	\$745,354	
	Total Financing Costs	92,143	SF of GBA	\$37		\$3,428,627
1V	Total Construction Cost (DC + InDC + Fin. Cost)	71	Units	\$546,482		\$38,800,251
	Total Development Cost (Total Constr. Cost + Land Cost)	71	Units	\$699,863		\$49,690,251

Appendix B.4.b—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Ownership Housing Development | Moderate Income Alternative

	Item	Sub-Item	Unit	per unit sales price	total sales price	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	4 units	\$267,000	\$1,068,000	
		One-Bedroom Units	29 units	\$372,800	\$10,811,200	
		Two-Bedroom Units	31 units	\$522,400	\$16,194,400	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Market Rate Units	64 units			\$28,073,600
	B. Moderate Income Units					
		Studio Units	0 units	\$267,000	\$0	
		One-Bedroom Units	3 units	\$305,729	\$917,186	
		Two-Bedroom Units	4 units	\$327,510	\$1,310,039	
		Three-Bedroom Units	0 units	\$366,733	\$0	
		Total Moderate Income Units	7 units			\$2,227,225
	Total Gross Income		71 units			\$30,300,825
2II	Cost of Sales					
		Commissions	3%	Gross sales revenue	\$909,025	
		Closing	2%	Gross sales revenue	\$606,017	
		Warranty	0.5%	Gross sales revenue	\$151,504	
	Total Cost of Sales					-\$1,666,545
2III	Net Revenue					
						\$28,634,280

Appendix B.4.b—Table 3

Estimated Development Return

Submarket #1 | Ownership Housing Development | Moderate Income Alternative

3I	Net Revenue			\$28,634,280
	Less: Threshold Developer Profit	9%	Total Development Cost	\$4,472,123
	Total Funds Available for Development Costs			\$24,162,157
3II	Total Development Cost (Total Constr. Cost + Land Cost)			\$49,690,251
3III	Return on Total Investment	51.4%	Total Development Cost	-\$25,528,094
	Land Cost Reduction	234%	As a % of Land Cost	\$25,528,094
	Supportable Inclusionary Housing Percentage	10%	Moderate Income Units	

Appendix C: Revised Pro Formas Controlling for 30% Land Cost Reduction

Appendix C: Revised Pro Formas Controlling for 30% Land Cost Reduction

Section	KMA Correspondence	Submarket	Development Type	Income Category	Income Level(s)
Appendix C.1.a	Attachment 2-- Appendix B--Exhibit I	1	Rental Residential Development	Single Income Category	Moderate Income Alternative
Appendix C.1.b	Attachment 2-- Appendix B--Exhibit II	1	Rental Residential Development	Single Income Category	Low Income Alternative
Appendix C.1.c	Attachment 2-- Appendix B--Exhibit III	1	Rental Residential Development	Single Income Category	Very Low Income Alternative
Appendix C.2.a	Attachment 2-- Appendix C--Exhibit I	1	Rental Residential Development	Mixed Income Category	20% VLI & 80% LI
Appendix C.2.b	Attachment 2-- Appendix C--Exhibit II	1	Rental Residential Development	Mixed Income Category	80% VLI & 20% LI
Appendix C.2.c	Attachment 2-- Appendix C--Exhibit III	1	Rental Residential Development	Mixed Income Category	70% LI & 30% Moderate Income

Appendix C.1.a—Table 1
Estimated Development Costs
Submarket #1 | Rental Residential | Moderate Income Alternative
Base Zoning: 185 Units/Acre = 139.6 units
INCLUSIONARY PERCENTAGE @ 13.6%

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$20,000	\$2,800,000	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect			
		Soft Cost Contingency Allowance	8% Costs		\$1,055,065	
	Total Indirect Costs					\$14,243,381
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,625,345 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,941,463	
		Loan Origination Fees				
		Loan to Cost	\$89,363,695 Of costs	60%	\$53,555,204	
		Origination Fees Percentage		2%	\$1,071,104	
	Total Financing Costs					\$7,829,991
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$590,181		\$82,625,345
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$648,877		\$90,842,845

Appendix C.1.a—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Rental Residential | Moderate Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 13.6%

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	15 units	\$1,820	\$327,600	
		One-Bedroom Units	62 units	\$2,370	\$1,763,280	
		Two-Bedroom Units	44 units	\$3,017	\$1,592,976	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	121 units			\$3,683,856
	B. Inclusionary Units					
		Studio Units	2 units	\$1,373	\$32,952	
		One-Bedroom Units	9 units	\$1,569	\$169,452	
		Two-Bedroom Units	8 units	\$1,753	\$168,288	
		Three-Bedroom Units	0 units	\$1,939	\$0	
		Total Units	19 units			\$370,692
		C. Laundry & Miscellaneous Income	140 units	\$25	\$42,000	
		Total Gross Income				\$4,096,548
		Vacancy & Collection Allowance	5% Gross Income			-\$204,827
2II	Effective Gross Income					
						\$3,891,721
2III	Operating Expenses					
		General Operating Expenses	140 units	\$(4,500.00)	\$(630,000.00)	
		Property Taxes	140 units	\$(4,300.00)	\$(602,000.00)	
		Replacement Reserve Deposits	140 units	\$(150.00)	\$(21,000.00)	
		Total Operating Expenses				\$(1,253,000)
2IV	Stabilized Net Operating Income (2II - 2III)					
						\$2,638,721
	Operating Expense as Percent of Revenue					
						-32%

Appendix C.1.a—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | Moderate Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 13.6%

3I	Stabilized Net Operating Income (2II - 2III)		\$2,559,149
	Threshold Return on Total Investment		
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario	5.4%
	Total Supportable Investment (3.0% return per revision)	from market rate scenario	3.0%
3II	Total Development Cost		\$90,842,845
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)	-\$2,488,576
	Feasible Inclusionary Percentage		13.6%
	As a % of Land Value		30% Decrease
	Effective Developer Return		2.9%

Appendix C.1.b—Table 1

Estimated Development Costs

Submarket #1 | Rental Residential | Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 7.9%

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$19,320	\$2,704,800	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect Costs			
		Soft Cost Contingency Allowance	8% Costs		\$1,055,065	
	Total Indirect Costs					\$14,140,565
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,513,100 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,940,943	
		Loan Origination Fees				
		Loan to Cost	\$89,251,450 Of costs	60%	\$53,550,870	
		Origination Fees Percentage		2%	\$1,071,017	
	Total Financing Costs					\$7,820,563
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$589,379		\$82,513,100
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$648,076		\$90,730,600

Appendix C.1.b—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Rental Residential | Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 7.9%

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	15 units	\$1,820	\$327,600	
		One-Bedroom Units	66 units	\$2,370	\$1,877,040	
		Two-Bedroom Units	48 units	\$3,017	\$1,737,792	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	129 units			\$3,942,432
	B. Inclusionary Units					
		Studio Units	2 units	\$733	\$17,592	
		One-Bedroom Units	5 units	\$838	\$50,280	
		Two-Bedroom Units	4 units	\$930	\$44,640	
		Three-Bedroom Units	0 units	\$1,026	\$0	
		Total Units	11 units			\$112,512
		C. Laundry & Miscellaneous Income	140 units	\$25	\$42,000	
	Total Gross Income					
						\$4,096,944
	Vacancy & Collection Allowance					
		5% Gross Income				-\$204,847
2II	Effective Gross Income					
						\$3,892,097
2III	Operating Expenses					
		General Operating Expenses	140 units	\$(4,500)	\$(630,000)	
		Property Taxes	140 units	\$(4,300)	\$(602,000)	
		Replacement Reserve Deposits	140 units	\$(150)	\$(21,000)	
	Total Operating Expenses					
						\$(1,253,000)
2IV	Stabilized Net Operating Income (2II - 2III)					
						\$2,639,097
	Operating Expense as Percent of Revenue					
						-32%

Appendix C.1.b—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 7.9%

3I	Stabilized Net Operating Income (2II - 2III)			\$2,639,097
	Threshold Return on Total Investment			
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario	5.4%	
	Total Supportable Investment (3.0% return per revision)	from market rate scenario	3.0%	
3II	Total Development Cost			\$90,730,600
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)		-\$2,363,735
	Feasible Inclusionary Percentage		7.9%	
	As a % of Land Value		29%	Decrease
	Effective Developer Return		2.9%	

Appendix C.1.c—Table 1
Estimated Development Costs
Submarket #1 | Rental Residential | Very Low Income Alternative
Base Zoning: 185 Units/Acre = 139.6 units
INCLUSIONARY PERCENTAGE @ 7.1%

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$19,360	\$2,710,400	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect Costs			
		Soft Cost Contingency Allowance	8% Costs		\$1,047,897	
	Total Indirect Costs					\$14,146,613
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,523,586 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,941,698	
		Loan Origination Fees				
		Loan to Cost	\$89,261,936 Of costs	60%	\$53,557,161	
		Origination Fees Percentage		2%	\$1,071,143	
	Total Financing Costs					\$7,821,443
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$589,429		\$82,520,029
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$648,125		\$90,737,529

Estimated Stabilized Net Operating Income and Developer Return
Submarket #1 | Rental Residential | Very Low Income Alternative
Base Zoning: 185 Units/Acre = 139.6 units
INCLUSIONARY PERCENTAGE @ 7.1%

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Appendix C.1.c—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | Very Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 7.1%

3I	Stabilized Net Operating Income (2II - 2III)		\$2,639,462
	Threshold Return on Total Investment		
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario	5.4%
	Total Supportable Investment (3.0% return per revision)	from market rate scenario	3.0%
3II	Total Development Cost		\$90,737,529
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)	-\$2,358,449
	Feasible Inclusionary Percentage		7.1%
	As a % of Land Value		29% Decrease
	Effective Developer Return		2.9%

Appendix C.2.a—Table 1

Estimated Development Costs

Submarket #1 | Rental Residential | 20% Very Low Income & 80% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 7.9%

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$19,320	\$2,704,800	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect			
		Soft Cost Contingency Allowance	8% Costs		\$1,055,065	
	Total Indirect Costs					\$14,140,565
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,513,100 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,940,943	
		Loan Origination Fees				
		Loan to Cost	\$89,251,450 Of costs	60%	\$53,550,870	
		Origination Fees Percentage		2%	\$1,071,017	
	Total Financing Costs					\$7,820,563
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$589,379		\$82,513,100
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$648,076		\$90,730,600

Appendix C.2.a—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Rental Residential | 20% Very Low Income & 80% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 7.9%

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	15 units	\$1,820	\$327,600	
		One-Bedroom Units	65 units	\$2,370	\$1,848,600	
		Two-Bedroom Units	49 units	\$3,017	\$1,773,996	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	129 units			\$3,950,196
	B. Inclusionary Units: Very Low Income					
		Studio Units	0	\$605	\$0	
		One-Bedroom Units	2	\$691	\$16,584	
		Two-Bedroom Units	1	\$766	\$9,192	
		Three-Bedroom Units	0	\$843	\$0	
		Total Units	3			\$25,776
	C. Inclusionary Units: Low Income					
		Studio Units	2 units	\$733	\$17,592	
		One-Bedroom Units	4 units	\$838	\$40,224	
		Two-Bedroom Units	2 units	\$930	\$22,320	
		Three-Bedroom Units	0 units	\$1,026	\$0	
		Total Units	8 units			\$80,136
		D. Laundry & Miscellaneous Income	140 units	\$25	\$42,000	
	Total Gross Income					
	Vacancy & Collection Allowance					
			5% Gross Income			-\$204,905
2II	Effective Gross Income					
2III	Operating Expenses					
		General Operating Expenses	140 units	\$(4,500)	\$(630,000)	
		Property Taxes	140 units	\$(4,300)	\$(602,000)	
		Replacement Reserve Deposits	140 units	\$(150)	\$(21,000)	
	Total Operating Expenses					
2IV	Stabilized Net Operating Income (2II - 2III)					
	Operating Expense as Percent of Revenue					

Appendix C.2.a—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | 20% Very Low Income & 80% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 7.9%

3I	Stabilized Net Operating Income (2II - 2III)			\$2,640,203
	Threshold Return on Total Investment			
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario	5.4%	
	Total Supportable Investment (3.0% return per revision)	from market rate scenario	3.0%	
3II	Total Development Cost			\$90,730,600
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)		-\$2,326,709
	Feasible Inclusionary Percentage		7.9%	
	As a % of Land Value		28%	Decrease
	Effective Developer Return		2.9%	

Appendix C.2.b—Table 1

Estimated Development Costs

Submarket #1 | Rental Residential | 80% Very Low Income & 20% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 7.1%

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$19,360	\$2,710,400	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect Costs			
		Soft Cost Contingency Allowance	8% Costs		\$1,047,897	
	Total Indirect Costs					\$14,146,613
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,523,586 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,941,698	
		Loan Origination Fees				
		Loan to Cost	\$89,261,936 Of costs	60%	\$53,557,161	
		Origination Fees Percentage		2%	\$1,071,143	
	Total Financing Costs					\$7,821,443
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$589,429		\$82,520,029
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$648,125		\$90,737,529

Appendix C.2.b—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Rental Residential | 80% Very Low Income & 20% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 7.1%

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	16 units	\$1,820	\$349,440	
		One-Bedroom Units	66 units	\$2,370	\$1,877,040	
		Two-Bedroom Units	48 units	\$3,017	\$1,737,792	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	130 units			\$3,964,272
	B. Inclusionary Units: Very Low Income					
		Studio Units	1	\$605	\$7,260	
		One-Bedroom Units	4	\$691	\$33,168	
		Two-Bedroom Units	3	\$766	\$27,576	
		Three-Bedroom Units	0	\$843	\$0	
		Total Units	8			\$68,004
	C. Inclusionary Units: Low Income					
		Studio Units	0 units	\$733	\$0	
		One-Bedroom Units	1 units	\$838	\$10,056	
		Two-Bedroom Units	1 units	\$930	\$11,160	
		Three-Bedroom Units	0 units	\$1,026	\$0	
		Total Units	2 units			\$21,216
		D. Laundry & Miscellaneous Income	140 units	\$25	\$42,000	
	Total Gross Income					
	Vacancy & Collection Allowance					
			5% Gross Income			-\$204,775
2II	Effective Gross Income					
2III	Operating Expenses					
		General Operating Expenses	140 units	\$(4,500)	\$(630,000)	
		Property Taxes	140 units	\$(4,300)	\$(602,000)	
		Replacement Reserve Deposits	140 units	\$(150)	\$(21,000)	
	Total Operating Expenses					
2IV	Stabilized Net Operating Income (2II - 2III)					
	Operating Expense as Percent of Revenue					

Appendix C.2.b—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | 80% Very Low Income & 20% Low Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 7.1%

3I	Stabilized Net Operating Income (2II - 2III)			\$2,637,717
	Threshold Return on Total Investment			
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario	5.4%	
	Total Supportable Investment (3.0% return per revision)	from market rate scenario	3.0%	
3II	Total Development Cost			\$90,737,529
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)		-\$2,416,852
	Feasible Inclusionary Percentage		7.1%	
	As a % of Land Value		29%	Decrease
	Effective Developer Return		2.9%	

Appendix C.2.c—Table 1

Estimated Development Costs

Submarket #1 | Rental Residential | 70% Low Income & 30% Moderate Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 9.3%

	Item	Sub-Item	Unit	per unit cost	cost	group subtotal cost
1I	Land Cost		32,870 SF	\$250		\$8,217,500
1II	Direct Costs					
		On-site improvement	32,870 SF	\$20	\$657,400	
		Off-site improvement (missing in KMA report)	32,870 SF	\$12	\$394,440	
		Parking				
		At-Grade Spaces	0 Spaces	\$5,000	\$0	
		Above-Ground Podium Spaces	0 Spaces	\$32,200	\$0	
		1st Level Subterranean	66 Spaces	\$48,750	\$3,217,500	
		2nd Level Subterranean	66 Spaces	\$52,500	\$3,465,000	
		3rd Level Subterranean	53 Spaces	\$56,250	\$2,981,250	
		Building Costs (core and shell)	178,749 SF of GBA	\$222	\$39,744,387	
		Contractor/DC Contingency	20% Other direct costs		\$10,091,995	
	Total Direct Costs		178,749 SF of GBA	\$339		\$60,551,973
				37.0%		
1III	Indirect Costs					
		Architecture, Engineering & Consulting	8% Direct Costs		\$4,844,158	
		Public Permits & Fees	140 Units	\$19,240	\$2,693,600	
		Taxes, Insurance, Legal & Accounting	3% Direct Costs		\$1,816,559	
		Marketing	140 Units	\$5,000	\$700,000	
		Developer Fee	5% Direct Costs		\$3,027,599	
			Other Indirect Costs			
		Soft Cost Contingency Allowance	8% Costs		\$1,046,553	
	Total Indirect Costs					\$14,128,469
1IV	Financing Costs					
		Interest During Construction				
		Land	\$6,738,350 Avg Rate	6.0%		
		Land cost as % of outstanding loan balance		100.0%	\$808,602	
		Construction	\$82,394,873 Avg Rate	6.0%		
		Construction cost as % of outstanding loan balance		60.00%	\$5,932,431	
		Loan Origination Fees				
		Loan to Cost	\$89,133,223 Of costs	60%	\$53,479,934	
		Origination Fees Percentage		2%	\$1,069,599	
	Total Financing Costs					\$7,810,632
1V	Total Construction Cost (DC + InDC + Fin. Cost)		140 Units	\$589,222		\$82,491,073
	Total Development Cost (Total Constr. Cost + Land Cost)		140 Units	\$647,918		\$90,708,573

Appendix C.2.c—Table 2

Estimated Stabilized Net Operating Income and Developer Return

Submarket #1 | Rental Residential | 70% Low Income & 30% Moderate Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 9.3%

	Item	Sub-Item	Unit	per unit rent (expense)/ month	rent (expense)/ year	group subtotal cost
2I	Gross Income					
	A. Market Rate Units					
		Studio Units	14 units	\$1,820	\$305,760	
		One-Bedroom Units	66 units	\$2,370	\$1,877,040	
		Two-Bedroom Units	47 units	\$3,017	\$1,701,588	
		Three-Bedroom Units	0 units	\$0	\$0	
		Total Units	127 units			\$3,884,388
	B. Inclusionary Units: Low Income					
		Studio Units	2	\$733	\$17,592	
		One-Bedroom Units	4	\$838	\$40,224	
		Two-Bedroom Units	3	\$930	\$33,480	
		Three-Bedroom Units	0	\$1,026	\$0	
		Total Units	9			\$91,296
	C. Inclusionary Units: Moderate Income					
		Studio Units	1 units	\$1,373	\$16,476	
		One-Bedroom Units	1 units	\$1,569	\$18,828	
		Two-Bedroom Units	2 units	\$1,753	\$42,072	
		Three-Bedroom Units	0 units	\$1,939	\$0	
		Total Units	4 units			\$77,376
		D. Laundry & Miscellaneous Income	140 units	\$25	\$42,000	
	Total Gross Income					
	Vacancy & Collection Allowance					
			5% Gross Income			-\$204,753
2II	Effective Gross Income					
2III	Operating Expenses					
		General Operating Expenses	140 units	\$(4,500)	\$(630,000)	
		Property Taxes	140 units	\$(4,300)	\$(602,000)	
		Replacement Reserve Deposits	140 units	\$(150)	\$(21,000)	
	Total Operating Expenses					
2IV	Stabilized Net Operating Income (2II - 2III)					
	Operating Expense as Percent of Revenue					

Appendix C.2.c—Table 3

Estimated Development Return

Submarket #1 | Rental Residential | 70% Low Income & 30% Moderate Income Alternative

Base Zoning: 185 Units/Acre = 139.6 units

INCLUSIONARY PERCENTAGE @ 9.3%

3I	Stabilized Net Operating Income (2II - 2III)			\$2,637,307
	Threshold Return on Total Investment			
	Total Supportable Investment (5.4% return per KMA)	from market rate scenario	5.4%	
	Total Supportable Investment (3.0% return per revision)	from market rate scenario	3.0%	
3II	Total Development Cost			\$90,708,573
3III	Total Financial Gap (3.0% return per revision)	(this is where land cost reduction comes from)		-\$2,401,637
	Feasible Inclusionary Percentage		9.3%	
	As a % of Land Value		29%	Decrease
	Effective Developer Return		2.9%	

Appendix D: Revised Affordability Analysis

Appendix D: Revised Affordability Analysis

Appendix D.1: Rental Residential Development In-Lieu Fee Analysis

	Moderate Income	Low Income	Very Low Income	Note
I. Rent Difference				The market rents are drawn from the pro forma analyses.
A. Studio Units				
Market Rate Units	\$2,179	\$2,179	\$2,179	
Affordable Units	1,373	733	605	
Difference	\$806	\$1,446	\$1,574	
B. One-Bedroom Units				
Market Rate Units	\$2,370	\$2,370	\$2,370	
Affordable Units	1,569	838	691	
Difference	\$801	\$1,533	\$1,679	
C. Two-Bedroom Units				
Market Rate Units	\$3,017	\$3,017	\$3,017	
Affordable Units	1,753	930	766	
Difference	\$1,265	\$2,087	\$2,252	
II. Distribution of Total Units (note: based on rent survey distribution)				
Studio Units	12%	12%	12%	
One-Bedroom Units	51%	51%	51%	
Two-Bedroom Units	37%	37%	37%	
Three-Bedroom Units	0%	0%	0%	
III. Annual Affordability Gap Per Affordable Unit	\$11,679	\$20,727	\$22,537	
				Based on the rent differential capitalized at a 5.5% rate to establish the value, and a 1.1% property tax rate
Less: Property Tax Difference	-\$3,010	-\$4,820	-\$5,180	
Annual Affordability Gap Per Affordable Unit	\$8,669	\$15,907	\$17,357	
IV. In-Lieu Fee				
				Based on the Annual Affordability Gap Per Affordable Unit capitalized at the Threshold Return on Total Investment.
Per Affordable Unit	\$160,741	\$294,086	\$321,078	
Supportable Inclusionary Housing Percentage	13.6%	7.9%	7.1%	See Appendix C
Per Square Foot of GBA (KMA: 80% efficiency)	\$19.21	\$20.33	\$20.22	KMA assumes 80% building efficiency ratio
Per Square Foot of GBA (revised: 70% efficiency)	\$16.81	\$17.79	\$17.69	Revised Scenario: 70% building efficiency ratio

Appendix D.2: Ownership Housing Development In-Lieu Fee Analysis

Exhibit I—Affordable Sales Price Calculations

Assumes subprime borrower, rate as of 10/14/2019

With different mortgage interest rates (see discussion in Section II Part G)

Assumes 13% or 20% down payment instead of 5% (see discussion in Section II Part H)

	For Moderate Income Households				
	Studio Units	1-bedroom Units	2-bedroom Units	3-bedroom Units	4-bedroom Units
D. Affordable Sales Price					
Principal @ Mortgage Interest = 5.31%	\$197,508	\$219,664	\$235,313	\$263,494	\$284,630
Down Payment @ 20% Aff Sales Price	\$49,377	\$54,916	\$58,828	\$65,874	\$71,158
Affordable Sales Price	\$246,885	\$274,580	\$294,141	\$329,368	\$355,788
Principal @ Mortgage Interest = 4.375%	\$219,914	\$244,583	\$262,008	\$293,386	\$316,920
Down Payment @ 20% Aff Sales Price	\$54,979	\$61,146	\$65,502	\$73,347	\$79,230
Affordable Sales Price	\$274,893	\$305,729	\$327,510	\$366,733	\$396,150
Principal @ Mortgage Interest = 3.57%	\$242,405	\$269,596	\$288,803	\$323,390	\$349,331
Down Payment @ 20% Aff Sales Price	\$60,601	\$67,399	\$72,201	\$80,848	\$87,333
Affordable Sales Price	\$303,006	\$336,995	\$361,004	\$404,238	\$436,664
Principal @ Mortgage Interest = 4.375%	\$219,914	\$244,583	\$262,008	\$293,386	\$316,920
Down Payment @ 13% Aff Sales Price	\$32,861	\$36,547	\$39,151	\$43,839	\$47,356
Affordable Sales Price	\$252,775	\$281,130	\$301,158	\$337,225	\$364,276
Principal @ Mortgage Interest = 5.125%	\$201,658	\$224,278	\$240,257	\$269,030	\$290,610
Down Payment @ 20% Aff Sales Price	\$50,414	\$56,070	\$60,064	\$67,258	\$72,652
Affordable Sales Price	\$252,072	\$280,348	\$300,321	\$336,288	\$363,262
Principal @ Mortgage Interest = 5.125%	\$201,658	\$224,278	\$240,257	\$269,030	\$290,610
Down Payment @ 13% Aff Sales Price	\$30,133	\$33,513	\$35,900	\$40,200	\$43,424
Affordable Sales Price	\$231,790	\$257,791	\$276,157	\$309,230	\$334,034

Appendix D.2: Ownership Housing Development In-Lieu Fee Analysis
Exhibit II—In-Lieu Fee Analysis
AFFORDABILITY GAP APPROACH - MODERATE INCOME

	KMA Scenario (5.31% Interest Rate & 5% Down Payment)	4.375% Mortgage Interest Rate & 20% Down Payment	3.57% Mortgage Interest Rate & 20% Down Payment	4.375% Mortgage Interest Rate & 13% Down Payment	5.125% Mortgage Interest Rate & 20% Down Payment	5.125% Mortgage Interest Rate & 13% Down Payment
I. Sales Price Difference						
A. Studio Units						
Market Rate Units	\$307,200	\$307,200	\$307,200	\$307,200	\$307,200	\$307,200
Affordable Sales Units	\$207,900	\$274,893	\$303,006	\$252,775	\$252,072	\$231,790
Difference	\$99,300	\$32,307	\$4,194	\$54,425	\$55,128	\$75,410
B. One-Bedroom Units						
Market Rate Units	\$428,900	\$428,900	\$428,900	\$428,900	\$428,900	\$428,900
Affordable Sales Units	\$231,300	\$305,729	\$336,995	\$281,130	\$280,348	\$257,791
Difference	\$197,600	\$123,171	\$91,905	\$147,770	\$148,552	\$171,109
C. Two-Bedroom Units						
Market Rate Units	\$600,700	\$600,700	\$600,700	\$600,700	\$600,700	\$600,700
Affordable Sales Units	\$247,700	\$327,510	\$361,004	\$301,158	\$300,321	\$276,157
Difference	\$353,000	\$273,190	\$239,696	\$299,542	\$300,379	\$324,543
II. Distribution of Total Units						
Studio Units: 5%	\$4,965	\$1,615	\$210	\$2,721	\$2,756	\$3,770
One-Bedroom Units: 45%	\$88,920	\$55,427	\$41,357	\$66,497	\$66,848	\$76,999
Two-Bedroom Units: 50%	\$176,500	\$136,595	\$119,848	\$149,771	\$150,190	\$162,271
III. In-Lieu Fee						
Per Income Restricted Unit	\$270,400	\$193,600	\$161,400	\$219,000	\$219,800	\$243,000
Supportable Inclusionary Housing Percentage	10%	10%	10%	10%	10%	10%
Per Square Foot of GBA (80% building efficiency)	\$23.7	\$17.0	\$14.2	\$19.2	\$19.3	\$21.3
Per Square Foot of GBA (70% building efficiency)	\$20.7	\$14.9	\$12.4	\$16.8	\$16.9	\$18.6

Appendix E: Public Permits & Fees

Appendix E: Public Permits & Fees

Municipal Permits and Fees—Part 1 of 2

	<u>Total</u>	<u>Per Unit</u>
Municipal permits and fees	\$7,394,555	\$23,475
Development cost levies	\$31,530	\$100
Density bonus contribution	\$0	\$0
Development permit	\$0	\$0
Demolition permit	\$0	\$0
Building permit	\$490,000	\$1,556
Shoring encroachment	\$0	\$0
Connection fees	\$0	\$0
Letters of credit fees - municipal	\$0	\$0
Building Review	\$0	\$0
Stormwater Review	\$135,000	\$429
Building Plan Check	\$410,000	\$1,302
Fire Plan Check	\$120,000	\$381
Energy Plan Check	\$38,000	\$121
MEP Plan Check	\$120,000	\$381
Building Check for Title 24 Public Art Fee	\$38,000	\$121
Public Art Fee	\$130,000	\$413
Stormwater Permit	\$150,000	\$476
SMIP Tax	\$11,000	\$35
Deputy Inspection	\$5,000	\$16
Structural Observation Form	\$400	\$1
Title 24 Building Permit	\$4,400	\$14
Records Management and Retention Fee	\$1,900	\$6
School Impact Fee	\$1,660,000	\$5,270
LB City Sewer Capacity Fee	\$600,000	\$1,905
LA County Sewer Capacity Fee	\$850,000	\$2,698

Source: Anderson Pacific, LLC.

Prepared by: Beacon Economics, LLC

Municipal Permits and Fees—Part 2 of 2

	<u>Total</u>	<u>Per Unit</u>
Municipal permits and fees	\$7,394,555	\$23,475
LB City Sewer Permit Fee	\$2,000	\$6
Transportation Improvement Fee	\$355,000	\$1,127
Parks and Recreation Fee	\$1,122,000	\$3,562
Fire Facilities Fee	\$120,000	\$381
Police Facilities Fee	\$170,000	\$540
Plumbing Fee	\$75	\$0
Planning Plan Check	\$117,000	\$371
Fire Permit	\$145,000	\$460
PC Surcharge - GP Update	\$3,500	\$11
PC Surcharge - Technology	\$10,000	\$32
PC Permit Surcharge - GP Update	\$35,000	\$111
PC Permit Surcharge - Technology	\$35,000	\$111
Soils Report Review	\$0	\$0
Plan Check Filing	\$300	\$1
C&D Recycling Admin	\$4,000	\$13
Permit Filing	\$350	\$1
C&D Recycling Deposit	\$51,500	\$163
Green Building Standards	\$3,300	\$10
Grading Plan Check	\$12,000	\$38
Grading Permit	\$65,000	\$206
Water Systems Plan Check	\$70,500	\$224
Entitlement Processing	\$0	\$0
SWRCB Fee	\$800	\$3
SCE Fee	\$30,000	\$95
MEP Permits	\$155,000	\$492

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