DRAFT REPORT

Residential Impact Fee Nexus Study

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Vernazza Wolfe Associates, Inc.

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I. EXECUTIVE SUMMARY

INTRODUCTION

This report is part of the 21 Elements multi-city nexus study, a collaborative effort to mitigate the impacts of new development on the demand for affordable housing in San Mateo County. In February 2014, 15 jurisdictions in the county partnered to hire Strategic Economics and Vernazza Wolfe Associates, Inc. to develop nexus studies for commercial linkage fees and residential impact fees.[1] The project was initiated by 21 Elements, a countywide collaboration among all the cities in San Mateo County on housing issues. The preparation of these fee studies may result in the adoption of new impact fees on either residential, commercial or both types of developments. This draft report describes the methodology, data sources, and analytical steps required for the nexus analysis.

BACKGROUND

Foster City is potentially interested in adopting an affordable housing impact fee on new residential development. The purpose of this fee would be to mitigate the impact of an increase in affordable housing demand from new worker households associated with new market-rate residential units. When a city or county adopts a development impact fee, it must establish a reasonable relationship or connection between the development project and the fee that is charged. Studies undertaken to demonstrate this connection are called nexus studies. This nexus study quantifies the connection between the development of market rate housing and the demand for affordable housing units.

This residential nexus study measures the income and spending generated by the new market rate households renting or buying new units in Foster City. This new consumption is then translated into new induced job growth. These induced jobs will be at various wage rates; many will be at lower wages, for example in the retail and personal services sectors. Since low-wage households cannot reasonably afford to pay for market rate rental and for-sale housing in Foster City, a housing impact fee can be justified to bridge the difference between what these new households can afford to pay and the cost of developing modest housing units to accommodate them.

REPORT ORGANIZATION

This executive summary provides an overview of the housing nexus analysis methodology and results. The subsequent chapters of the report contain more detailed information regarding the methodology, data sources, and the steps of the analysis. The report is organized into seven sections and a glossary of terms. Following this executive summary, Section II provides an introduction to the purpose of the study, and an overview of the methodology. Section III presents the residential prototypes used in the analysis. Section IV describes the methodology and results of the IMPLAN economic impact analysis. Section V covers the housing affordability gap analysis. Section VI presents the maximum fee calculation based on the nexus analysis and affordability gap results. The final section, Section VII, discusses financial feasibility and other policy considerations that jurisdictions typically weigh before implementing a nexus fee.

[1] Participating jurisdictions include: Belmont, Brisbane, Burlingame, Colma, Foster City, Half Moon Bay, Menlo Park, Millbrae, Pacifica, Portola Valley, Redwood City, San Bruno, San Mateo County, City of San Mateo, and South San Francisco.

NEXUS FEE IMPLEMENTATION OPTIONS

Foster City has the option of implementing a new impact fee on rental and condominium housing or continuing its existing inclusionary programs consistent recent court decisions.[2] Based on the findings of the financial feasibility analysis and a comparison of fees in neighboring jurisdictions, if Foster City elects to adopt a rental housing impact fee, the recommended fee level is $27,750 per unit, or $32 per square foot. If the City proceeds with a condominium housing impact fee, the recommended fee level is $28,950 per unit or $18 per square foot or lower. The maximum and recommended fee levels are shown in Figure I-1.

Figure I-1. Recommended Housing Nexus Fees by Residential Prototype

Prototype	Maximum Justified Fee per Unit	Maximum Justified Fee per SF	Recommended Fee per Unit	Recommended Fee per SF
Condominium	$72,380	$45	$28,952	$18
Apartments	$69,377	$80	$27,751	$32

Sources: Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015

NEXUS ANALYSIS RESULTS

This section describes the steps taken to calculate the nexus-based fee amount per housing unit. More detail on each step can be found in other sections of this report.

Prototypes

The first step in the nexus analysis is developing residential housing prototypes. The prototypes establish the types of market rate housing development that are occurring or are expected to occur in the city that could potentially be subject to the affordable housing impact fee. The fees calculated in this nexus study are only applicable to the housing prototypes defined in this analysis.

Based on historical development trends, market data, broker interviews, and input from city staff, the Consultant Team constructed two housing prototypes that represent the type of development that is likely to occur in Foster City: for-sale condominiums and rental apartments. These development prototypes are not intended to represent specific development projects; rather, they are designed to illustrate the type of projects that are likely to be built in Foster City in the near future. Figure I-2 provides information on the unit type and size, as well as estimated sales prices and average monthly rents for each prototype.

[2] The City can continue operating its inclusionary program for rental housing, assuming that it provides cost offsets and other incentives that allow its program to be consistent with the Palmer case decision.

Figure I-2. Sales Prices and Rental Rates of Residential Prototypes

Prototype	Unit Type	Number of Units	Net Area (SF)	Unit Sales Price Monthly Rent	Price or Rent per SF
Condominiums (For-Sale)					
Type V wood frame	2 BD/2 BA	56	1,400	$749,000	$535
39 units per acre	2+BD/2 BA	48	1,500	$790,000	$527
Subterranean parking	3 BD/ 2 BA	96	1,800	$953,000	$529
Net Residential Area (Net SF)			323,200		
Average Net SF per Unit			1,616		
Apartments (Rental)					
Type V wood frame	1 BD/ 1 BA	122	700	$2,900	$4.14
46 units per acre	2 BD/2 BA	110	1,000	$4,100	$4.10
Podium parking	3 BD/ 2 BA	15	1,300	$4,700	$3.62
Net Residential Area			214,900		
Average Net SF per Unit			870		

Sources: DataQuick, 2014; Individual Project Websites, 2014; City of Foster City, 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Household Income

The next step is to calculate the annual household incomes of the buyers of new for-sale condominium units and the renters occupying new apartment units by using the sales prices and rents shown in Figure I-2. Threshold incomes needed to purchase or rent units are based on standards used in the housing industry.[3] Figure I-3 summarizes the estimated household incomes of condominium buyers, and Figure I-4 presents the calculated household incomes of apartment renters. Household incomes are a key input to the IMPLAN3 economic impact analysis described in Section IV of this report.

Figure I-3. Estimated Annual Household Incomes of Buyers of Condominium Units

	Condominium Unit Type		
	2 BR/ 2 BA	**2+BR/ 2BA**	**3 BR/ 2 BA**
Number of Households	56	48	96
Sales Price	$749,000	$790,000	$953,000
Household Income	$150,486	$157,879	$187,271

Sources: California Health & Safety Code; Freddie Mac, 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014. See below for more details.

Figure I-4. Estimated Annual Household Incomes of Renters of Apartment Units

	Apartment Unit Type		
	1 BR/ 1 BA	**2 BR/ 2 BA**	**3 BR/ 2 BA**
Number of Households	122	110	15
Monthly Rent	$2,900	$4,100	$4,700
Household Income	$116,000	$164,000	$188,000

Sources: California Health & Safety Code; Freddie Mac, 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014. See below for more details.

[3] These standards are presented in Section III of this report.

Economic Impact Analysis (IMPLAN)

The next step is to determine employment and wage impacts of each prototype based on the incomes of the occupants of new housing units. The buyers and renters of the new market-rate condominiums and apartments create new spending in the local economy. These new expenditures can be linked to new jobs, many of which pay low wages. The job and wage impacts related to new market-rate housing units are measured using IMPLAN3, an economic impact analysis tool. An economics consulting firm, Applied Development Economics (ADE) undertook the IMPLAN3 analysis.

The results of the IMPLAN analysis indicate that many of the induced jobs generated within San Mateo County are in low-wage sectors like retail and food services (restaurants). However, a significant proportion of induced jobs are also in higher-paying resident-serving categories such as health care and government.

Demand for Affordable Housing

Recognizing that many households have more than one wage-earner, the next step is to calculate the number of worker households by dividing the total number of new workers by the average number of wage-earners per household in Foster City. However, not all of the worker households require affordable housing. To estimate the affordable housing demand, the average annual household income of worker households is sorted into income categories that are consistent with area median income (AMI) levels defined for San Mateo County and is specific to the average household size in the jurisdiction. Figure I-5 indicates that of the 79 new worker households associated with a condominium development, there are 63 households that need affordable housing. The comparable figure for apartment development is about 74 households

Figure I-5. New Worker Households by Income Group for Condominium and Apartment Prototypes

Worker Households by Income Category	Condominium	Apartment
Households Requiring Affordable Housing		
Very Low Income (<=50% AMI)	20	24.2
Low Income (51-80% AMI)	20.2	23.8
Moderate Income (81-120% AMI)	22.8	26.4
Subtotal Very Low, Low, Moderate Income	63.0	74.4
Above Moderate Income Households	15.7	18.4
Total All Worker Households	78.7	92.7

Sources: IMPLAN 3 via Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015

Affordability Gap

The next step is to quantify the total gap between what very low, low, and moderate-income households can afford to pay and the cost of building new, modest rental and for-sale housing units. This housing "affordability gap" number is then multiplied by the number of income-qualified households in each income category for condominium and apartment developments separately in order to estimate the total housing affordability gap for each prototype. Figures I-6 and I-7 present these totals for condominiums and apartments.

Figure I-6. Total Affordability Gap for Condominiums

Income Level	Households Requiring Affordable Housing	Average Affordability Gap per Household	Affordability Gap for All New Worker Households
Very Low Income (<50% AMI)	20.0	$280,783	$5,615,655
Low Income (50-80% AMI)	20.2	$240,477	$4,857,633
Moderate Income (80-120% AMI)	22.8	$175,558	$4,002,716
Total	63.0		$14,476,005

Sources: : California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure I-7. Total Affordability Gap for Apartments

Income Level	Households Requiring Affordable Housing	Average Affordability Gap per Household	Affordability Gap for All New Worker Households
Very Low Income (<50% AMI)	24.18	$280,783	$6,789,076
Low Income (50-80% AMI)	23.76	$240,477	$5,714,414
Moderate Income (80-120% AMI)	26.39	$175,558	$4,633,275
Total	74.33		$17,136,765

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Maximum Nexus-Based Fee

The final step in calculating the maximum housing impact fee by prototype is to divide the total gap at each income level by the number of units in each prototype. This maximum fee amount represents the ceiling on the fee that could be charged to mitigate affordable housing impacts from new residential development. The maximum condominium impact fee per unit is $72,380, and the maximum apartment fee per unit is $69,380. On a per-unit basis, the fees are higher for condominiums than for apartments. The fees are also calculated on a per-square-foot basis by dividing the unit fee by the average size of the unit. On a per-square-foot basis, the maximum impact fee is $45 for condominiums and $80 for apartments. The per-square-foot fee is higher for apartments because the average unit size for apartments is smaller. Figure I-8 presents the results of this final step.

Figure I-8. Maximum Housing Impact Fee by Prototype

Prototype	Condominiums	Apartments
Total Number of Units	200	247
Average Unit Size	1,616	870
Total Affordability Gap	$14,476,005	$17,136,765
Maximum Fee per Unit	$72,380	$69,380
Maximum Fee per SF	$45	$80

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

POLICY CONSIDERATIONS

There are a number of policy considerations that should be taken into account when Foster City considers whether to adopt an affordable housing impact fee on new market-rate development. The Consultant Team explored the impact of various fee scenarios on financial feasibility, examined how the total city fee structure would be affected, and compared it to adopted fees in neighboring jurisdictions. In addition, various other policy considerations were explored, including the role of the

potential fee in meeting Foster City's overall affordable housing strategy and how it would compare to the inclusionary zoning program currently in place.

Financial Feasibility – In order to provide Foster City with guidance on how proposed fees could impact development decisions, the Consultant Team conducted a financial feasibility analysis that tested the impact of proposed fee options on developer profit for both prototypes. The fees were tested at three levels.

The analysis showed that establishing a fee at the maximum-justified fee level would have a negative impact on development feasibility for both condominiums and apartments. However, the two other scenarios considered are both financially feasible for condominiums and apartments; these additional costs would not significantly impact the likelihood of a project occurring.

Comparison to Existing City Fees – Currently, Foster City's development fees for the two residential prototypes are estimated at $30,481 for an apartment unit and $34,823 for a condominium unit.[4] Once the nexus-based residential impact fees at various levels are added to existing fees, the total fees increase significantly. The maximum fee increases total fees by 300 percent, while the lowest scenario approximately doubles total city fees. To illustrate this doubling of fees, consider condominium unit fees. The current development fees on a condominium unit total $34,823. The housing impact fee at the recommended level would be $28,952. If this is added to the existing fees, the total fees would be nearly $64,000 or almost twice the fees currently charged on a condominium unit.

Comparison to Neighboring Jurisdictions – It is difficult to show an accurate comparison of fees at this time because most cities in San Mateo County are participating in this project to consider adopting new impact fees or updating existing impact fees and therefore current fee levels may not accurately reflect future fee levels. The maximum-justified fee level for Foster City is considerably higher than the affordable housing impact fees that are currently in place in San Mateo County. If Foster City adopted the recommended fee levels for both condominium and apartment units ($28,950 per unit or $18 per square foot for condominiums and $27,750 per unit or $32 per square foot for apartments), its fees would place the apartment fee at the upper end of the range; however, the condominium unit fee would still be lower than the current fees in Cupertino, Daly City, East Palo Alto, and San Carlos (and possibly Sunnyvale) depending on sales prices.

Role of Fee in Foster City's Overall Housing Strategy – Foster City's affordable housing strategy primarily consists of two programs: providing financial assistance for affordable housing developments and preservation and operating an inclusionary housing program that requires developers to provide 20 percent of all units at affordable rents or sales prices. Housing impact fee revenues would augment existing affordable housing funds. It should be noted that revenues from this impact fee would need to be spent on housing that benefits worker households (excluding non-working households like retired seniors, unemployed homeless, and student populations), since the funds stem from affordable housing impacts related to new employment. Foster City currently has an inclusionary policy in the General Plan that requires that new developments include 20 percent affordable housing units. In-lieu fees have not been adopted in Foster City. The affordability levels for the inclusionary units are determined on a case by case basis, and developers have historically built the units within their projects. If the City adopts a housing impact fee, it could replace its inclusionary zoning program with an impact fee program that still allows developers the option of providing affordable units; or it could continue to require on-site units in for-sale projects and charge the fee only to rental developments.

[4] The fee estimates presented above represent the best approximations available from City staff.

II. INTRODUCTION AND METHODOLOGY

Foster City is considering a housing impact fee on new residential development. The purpose of this fee would be to mitigate the impact of an increase in demand for affordable housing due to employment growth associated with potential new residential development. When a city or county adopts a development impact fee, it must establish a reasonable relationship or connection between the development project and the impacts for which the fee is charged. Studies undertaken to demonstrate this connection are called nexus studies. Nexus studies for school impact fees, traffic mitigation fees, and park fees are common. For housing impact fees, a methodology exists that establishes a connection between the development of market rate housing and the need to expand the supply of affordable housing. This study is based on this methodology.

The approach for this nexus study is to estimate the number of new workers that will be required to provide goods and services to the market rate households that are occupying new units in Foster City. Although growth in employment will provide jobs at various wage rates, many of the new jobs will be at low-wage rates in retail trade and services, consistent with job patterns in the County. Since low-wage households cannot reasonably afford to pay for market rate rental and for-sale housing in Foster City, a housing impact fee can bridge the difference between what these new households can afford to pay and the costs of developing new housing units for them.

New market rate housing units in Foster City create a need for low-wage employees to provide goods and services to residents of the new units. If new market rate housing were not built, there would not be an increase in employment nor the accompanying demand for affordable housing from these new workers. Because housing impact fees are directed related to employment growth, the revenues collected from these fees needs to be spent on workforce housing and not on housing for households that do not participate in the labor force, such as retired seniors, unemployed homeless, and full-time student populations.

BACKGROUND

Cities and counties in California have operated inclusionary zoning programs to increase the supply of affordable housing since the 1970s. An inclusionary program requires that builders of new residential projects provide a specified percentage of units, either on-site or off-site, at affordable prices. Some programs have also allowed developers the option of paying fees “in lieu” of providing inclusionary units.

Inclusionary zoning policies have usually been established based on the police power of cities and counties to enact legislation benefitting public health, safety, and welfare. In its recent decision on *California Building Industry Ass’n v. City of San Jose*, the California Supreme Court upheld this power of cities, finding that the objective of increasing affordable housing supply in economically diverse developments was “unquestionably” permitted by the U.S. Constitution.

However, in 2009, in *Palmer/Sixth Street Properties, L.P. v. City of Los Angeles*, the Court of Appeal held that inclusionary *rental* requirements violate the Costa Hawkins Rental Housing Act, which allows landlords to determine the rents of all new units. Affordable rental housing may still be required if a developer agrees by contract to do so, in exchange for financial assistance or regulatory incentives. However, in the absence of these incentives, restricted rents cannot be *required* of a developer. Consequently, communities have completed nexus studies and imposed rental housing impact fees to mitigate the impact of market-rate rental housing on the need for affordable housing. Although a nexus analysis is not required to adopt inclusionary ordinances and in-lieu fees on for-sale housing, conducting a nexus study provides additional support for these requirements.

The nexus analyses presented in this study are designed to define an upper limit for a housing impact fee to be charged on new rental and for-sale housing to mitigate impacts on affordable housing needs. The maximum fee is not necessarily the recommended fee. Subsequent sections of this report address additional policy considerations to consider when adopting housing impact fees.

THE NEXUS CONCEPT

In a balanced housing market, the development of new market rate housing results in population growth. Residents purchasing and renting these new units now spend money in the city. For example, they go out to eat in local restaurants, shop for food and clothing in local stores, and patronize other local businesses, such as hair salons, dry cleaners, and dental offices. This local spending results in the need to hire new workers to respond to the increased demand for goods and services. A nexus study establishes the connection between the households that purchase new housing units (or rent newly constructed rental units) and the number of new workers that will be hired by local businesses to serve the needs of new residents.

Growth in employment will provide jobs at various wage rates. While some jobs will pay salaries that will allow new workers to rent or purchase market rate housing, many new jobs will also be at lower wages. Since low-wage households cannot reasonably afford to pay for market rate rental and for-sale housing in Foster City, a housing impact fee addresses the demand for affordable housing.

METHODOLOGY

The first step of the nexus analysis is to estimate the market prices or rents of new housing units. Based on these prices or rents, gross household incomes of buyers and renters are calculated. The gross household incomes of buyers and renters are then translated into direct economic impacts (new spending on retail goods and personal services), and induced impacts (new jobs and wage income) using the IMPLAN3 model. The IMPLAN3 analysis provides information on likely incomes of new workers. These incomes can then be used to estimate the demand for affordable housing from new worker households, and the costs of providing these affordable units.

Each step of the nexus analysis is described in greater detail below.

Step 1. Define the residential prototypes that represent new market rate housing development.
Based on a review of recent development trends, pipeline projects, and market data for the city and county, the residential prototypes are defined. The prototypes represent typical new market-rate development projects likely to occur in the city. The prototype definitions include information on the building characteristics, net residential area, unit mix and sizes, and sales prices or rents.

Step 2. Estimate household income of buyers and renters of new market rate units.
The average gross household income required to purchase or rent new market rate units is estimated based on the market value or rents of new units. For ownership units, the calculation assumes typical mortgage terms and assumes that buyers spend 35 percent of their gross incomes on housing costs. For rental units, is assumed that renter households spend 30 percent of their gross incomes on housing.

Step 3. Estimate economic impacts of new buyers and renters using IMPLAN3.
The IMPLAN3 model uses Bureau of Labor Statistics Consumer Expenditure Survey data to model the spending patterns of different income groups. The model estimates the increase in expenditures from new households, the number of new (induced) workers related to new households, and the occupations and wages of these new workers.

Step 4. Estimate the number of new worker households and annual household incomes.
The number of new induced workers from the IMPLAN3 analysis is divided by the average number of workers per household in the city (defined by the U.S. Census Bureau) to calculate the total number of worker households associated with each housing prototype. The average worker's wage calculated in the IMPLAN3 analysis is multiplied by the number of workers per household in the city to derive gross household income. This step assumes that the all wage-earners in a household have the same income.

Step 5. Estimate the demand for affordable housing from new worker households.
Based on the calculation of new worker household income, the worker households are categorized by target income group (very low income, low income, moderate income, and above moderate income). Worker households with above-moderate incomes are removed from the nexus analysis, because they would not require affordable housing.

Step 6. Estimate the affordability gap of new households requiring affordable housing.
The affordability gap represents the difference between what households can afford to pay for housing and the development cost of a modest housing unit. For very low and low income households, a rental housing gap is used. For moderate income households, the housing affordability gap is calculated separately for renter and owner households, and then the two gaps are combined to derive an average affordability gap for moderate income households.

Step 7. Estimate nexus-based fees for each prototype.
The number of new households requiring affordable housing is multiplied by the average affordability gap per household to estimate the total affordability gap for each prototype. The maximum per-unit and per-square foot fees are then calculated by dividing the aggregate affordability gap by the number of units or net residential area in each prototype.

III. RESIDENTIAL PROTOTYPES

The first step in the nexus analysis is developing residential housing prototypes. The residential prototypes establish the types of residential development that are occurring or are expected to occur in the city and could potentially be subject to the affordable housing impact fee. The housing prototypes are not intended to represent specific development projects; rather, they are designed to illustrate the type of projects that are likely to be built in Foster City in the near future. The fees calculated in this nexus study are only applicable to the housing prototypes defined in this analysis.

Based on estimated sales prices and rents of new market-rate units, the household incomes of buyers and renters of new units are estimated. This section of the report describes the methodology for establishing the prototypes and calculating the household incomes of buyers and renters of new market-rate units in Foster City. The estimated household incomes are then used as inputs to the IMPLAN3 analysis to estimate the employment impacts of the market-rate households, which is described in more detail in Section IV of this report.

RECENT HOUSING DEVELOPMENT TRENDS

In order to ensure that the prototypes accurately reflect current market conditions, the Consultant Team analyzed recently built market rate housing development projects, as well as planned and proposed projects in Foster City. Foster City has recently attracted new market rate, multi-family rental development, and is anticipating new apartment development in the near future. This report also examined similar projects located in adjacent cities to model a future apartment prototype.

Figure III-1 summarizes the market data for a recently built market-rate apartment project in Central San Mateo County. As shown, the average asking monthly rents are $2,900 for one bedroom units, $4,100 for two bedroom units, and $4,700 for three bedroom units. Rental rates are slightly higher for the 888 Apartments project in neighboring San Mateo, another recently built market-rate project completed in late 2013, from nearly $3,000 for studio units to $4,300 for two-bedroom units. Because the rental rates were slightly lower for the Plaza at Triton Park project than the rents at 888 Apartments, it formed the basis for estimating rents for the rental apartment prototype.

In addition, the city has received proposals for new condominium development. However, because Foster City has not experienced new condominium development during and immediately after the Great Recession, market data from recently sold older condominium units and sales of newer condominium units in neighboring cities in Central San Mateo County (including the cities of Burlingame and San Carlos) were analyzed. Figure III-2 summarizes the data on recent re-sales of older condominium units in Foster City, which indicates that the average price for two-bedroom units ranges from $414 per square foot to $632 per square foot. The existing units in Foster City vary in size from a minimum of 1,060 square feet to a maximum of 1,593 square feet.

The price points and sizes of existing units in Foster City were compared to newer condominium units built in neighboring cities from 2008 to 2013. As shown in Figure III-3, the unit prices for new condominiums range from $485,000 for the smallest units in San Carlos to $1.9 million for large, luxury three-bedroom units in Burlingame. The average per-square-foot condominium price falls between $414 to $819, depending on the size, location, and quality of the unit. The unit prices of existing units in Foster City fall within the middle of the range for newer products in neighboring cities. Therefore, the price points from recent sales of existing older units were selected for the condominium prototype. This estimate is conservative because it represents the market prices of older existing units, rather than newly built condominium units in Foster City, which could potentially command higher prices.

RESIDENTIAL PROTOTYPES

Based on historical development trends, market data, broker interviews, and input from city staff, the Consultant Team constructed two housing prototypes that represent the type of development that is likely to occur in Foster City. These development prototypes are not intended to represent specific development projects; rather, they are designed to illustrate the type of projects that are likely to be built in Foster City in the near future. The prototypes, as shown in Figure III-4, provide information on the building type, number of units, average size by unit type, and average monthly rents or sales prices by unit type.

For-Sale Condominiums

The for-sale condominium prototype is a Type V wood-frame building with an underground parking garage and net residential area of 323,200 square feet. The estimated average density is 39 units per acre. This building type is representative of recently built condominium projects in Foster City and surrounding cities. Unit types are two- and three-bedroom units, ranging in size from 1,400 to 1,800 square feet. The average estimated price of newly built condominiums ranges from $749,000 to $953,000, depending on the unit type.

Rental Apartments

The rental apartment prototype is a Type V wood-frame building with podium parking and net residential area of 214,900 square feet. The estimated density is 46 units per acre. This is a typical building type for new market-rate apartment development in San Mateo County. The apartment unit mix consists of mostly one- and two-bedroom units, with a smaller number of three-bedroom units. Estimated monthly rents range from $2,900 to $4,700 per unit, depending on unit size and number of bedrooms.

Figure III-1. New Market-Rate Apartment Projects in Central San Mateo County

Project	Year Built	Building Type	Unit Types	Number Units	Unit Size (SF)	Monthly Rent	Average Rent/ SF
Plaza at Triton Park	2013	4-5 story	1 BR/ 1 BA	122	700	$2,900	$4.14
Foster City		Structured parking	2 BR/ 2 BA	110	1,000	$4,100	$4.10
			3 BR/ 2 BA	15	1,300	$4,700	$3.62
888 Apartments	2013	4 stories	Studio/ 1 BA	17	634	$2,970	$4.68
San Mateo		Underground parking	1 BR/ 1 BA	60	812	$3,581	$4.41
			2 BR/ 2 BA	63	1,127	$4,331	$3.84

Sources: Plaza at Triton Park, 2014; 888 Apartments, 2014; City Staff, 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-2. Recent Sales of Condominium Units in Foster City

Unit	Year Built	Unit Type	Unit Size (SF)	Sale Price	Average Price/ SF
815 Sea Spray #103	1981	2 BR/ 2 BA	1,233	$780,100	$632.68
904 Beach Park #121	1973	2 BR/ 2 BA	1,060	$670,000	$632.08
1051 Beach Park #214	1976	2 BR/ 2 BA	1,593	$660,000	$414.31
1171 Compass Lane #102	1976	2 BR/ 2 BA	1,286	$653,000	$507.78
1051 Beach Park #110	1976	2 BR/ 2 BA	1,286	$640,000	$497.67
908 Beach Park #117	1973	2 BR/ 2 BA	1,087	$625,000	$574.98
Average			1,258	$671,350	$543.25

*Includes all closed condominium sales as reported by the Multiple Listing Service, sold in July 2014.

Sources: Signature Realty & Property Management; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-3. Prices of New Condominium Units in Central San Mateo County, Sold 2008-2013

Project	Year Built	Building Type	Unit Type	Unit Size (SF)	Sale Price	Average Price/ SF
1001 Laurel Street	2009	3-4 stories	1 BR/ 1 BA	928	$485,000	$522.63
San Carlos		Underground parking	2 BR/ 2 BA	1,060	$670,000	$632.08
			3 BR/ 2 BA	1,593	$660,000	$414.31
641 Cedar Street	2009	3 stories	2 BR/ 2 BA	1,140	$547,200	$480.00
San Carlos		Podium parking				
1226 El Camino Real	2010	3-4 stories	2 BR/ 2 BA	1,610	$852,500	$530.01
Burlingame		Podium parking				
508 Peninsula Ave	2009	3 stories	2 BR/ 2.5 BA	1,357	$538,333	$397.68
Burlingame		Podium parking				
1512 Floribunda Ave	2008	4 stories	2 BR/ 2.5 BA	1,582	$1,290,000	$819.27
Burlingame		Underground parking	3 BR/ 2.5 BA	2,735	$1,890,500	$690.58

Sources: DataQuick, 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-4. Average Net Residential SF per Unit

Prototype	Unit Type	Number of Units	Net Area (SF)	Unit Sales Price/ Monthly Rent	Price or Rent per SF
Condominiums (For-Sale)					
Type V wood frame	2 BD/2 BA	56	1,400	$749,000	$535
39 units per acre	2+BD/2 BA	48	1,500	$790,000	$527
Subterranean parking	3 BD/ 2 BA	96	1,800	$953,000	$529
Net Residential SF			323,200		
Average Net Residential SF per Unit			1,616		
Apartments (Rental)					
Type V wood frame	1 BD/ 1 BA	122	700	$2,900	$4.14
46 units per acre	2 BD/2 BA	110	1,000	$4,100	$4.10
Podium parking	3 BD/ 2 BA	15	1,300	$4,700	$3.62
Net Residential SF			214,900		
Average Net Residential SF per Unit			870		

Sources: Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

HOUSEHOLD INCOMES OF BUYERS AND RENTERS

Using the sales prices and rents shown in Figure III-4, the next step is to calculate the annual household incomes of the buyers of new for-sale condominium units and the renters occupying new apartment units. The household income is a key input to the IMPLAN3 economic impact analysis described in Section IV of this report.

Incomes of Condominium Buyers

To calculate the household income of buyers of new condominium units, the analysis applied mortgage terms typical for San Mateo County: 20 percent down payment, 30 year fixed rate mortgage, and 4.35 percent interest rate. Property tax rates were estimated from recent budget documents, and homeowner association (HOA) fees were based on a review of HOA fees at similar new condominium developments in San Mateo County. Total housing costs, including monthly payments for mortgage payments, property taxes, insurance, and HOA fees, are assumed to be 35 percent of available monthly income. This is a conservative assumption, given that many households spend a higher share of their disposal incomes on housing, once other types of debt such as auto loans, student loans, and personal credit loans are considered. The result of the income estimates for households buying new condominium units is shown in Figure III-5. As shown in the calculations, for all the condominium unit types, household incomes are estimated at over $150,000.

Incomes of Apartment Renters

For renter households, maximum annual housing costs are assumed to be 30 percent of gross household income, a standard established in California's Health and Safety Code Sections 50052.5 and 50053, although it is acknowledged that many renters in San Mateo County spend a higher share of their gross income on housing. The estimated household income of renters varies by unit type, as indicated in Figure III-6. One-bedroom renter households have an estimated annual income of $116,000. Renters of two- and three-bedroom units have estimated household incomes of $164,000 and $188,000, respectively.

Figure III-5. Estimated Annual Household Incomes of Buyers of Condominium Units

	Condominium Unit Type		
	2 BR/ 2 BA	2+BR/ 2BA	3 BR/ 2 BA
Number of Households	56	48	96
Sales Price	$749,000	$790,000	$953,000
Down Payment (a)	$149,800	$158,000	$190,600
Loan Amount	$599,200	$632,000	$762,400
Monthly Debt Service (b)	$2,983	$3,146	$3,795
Annual Debt Service	$35,795	$37,754	$45,544
Annual Property Taxes (c)	$8,854	$9,339	$11,265
Annual HOA Fees (d)	$5,400	$5,400	$5,400
Fire and Hazard Insurance (e)	$2,622	$2,765	$3,336
Annual Housing Costs (f)	$52,670	$55,258	$65,545
Household Income	$150,486	$157,879	$187,271

Notes:

(a) Down payment is estimated at 20% of sales price, based on Freddie Mac data for San Mateo County.
(b) Interest rate is estimated at 4.35% for a 30-year term, based on Freddie Mac data. http://www.freddiemac.com/pmms/pmms30.htm.
(c) Property tax rate is 1.1821% based on Foster City CAFR.
(d) Homeownership association (HOA) fees are estimated at $450 per month, based on review of new condominiums in San Mateo County.
(e) Industry standard
(f) Homeownership housing burden is estimated at 35%, based on California Health & Safety Code Sections 50052.5 and 50053.

Sources: Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-6. Estimated Annual Household Incomes of Renters of Apartment Units

	Apartment Unit Type		
	1 BR/ 1 BA	2 BR/ 2 BA	3 BR/ 2 BA
Number of Households	122	110	15
Monthly Rent	$2,900	$4,100	$4,700
Annual Housing Costs	$34,800	$49,200	$56,400
Housing Costs as % of Income (a)	30%	30%	30%
Household Income	$116,000	$164,000	$188,000

Notes:

(a) Renter housing burden is estimated at 30%, based on California Health & Safety Code Sections 50052.5 and 50053.

Sources: Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

IV. ECONOMIC IMPACT ANALYSIS (IMPLAN3)

The buyers and renters of the new market-rate condominiums and apartments create new spending in the local economy. These new expenditures can be linked to new jobs, many of which pay low wages. The job and wage impacts related to new market-rate housing units are measured using IMPLAN3, an economic impact analysis tool. An economics consulting firm, Applied Development Economics (ADE) undertook the IMPLAN3 analysis with the information on residential prototypes and associated buyers' and renters incomes provided by Strategic Economics and Vernazza Wolfe Associates Inc. In this section of the report, the methodology and results of the IMPLAN3 analysis are described in detail.

THE IMPLAN3 MODEL

The IMPLAN model is an economic dataset that has been used for over 35 years to measure the economic impacts of new investments and spending using the industrial relationships defined through an Input-Output Model. The IMPLAN model can estimate economic impacts resulting from changes in industry output, employment, income, and other measures. The latest version of this model is referred to as IMPLAN3.

For this analysis, the input-output model used data specific to San Mateo County in order to estimate the multiplier effects resulting from the households that could potentially rent or buy new housing units in Foster City. In this case, all of the multiplier effects derive from new demand for goods and local services (including government) that new households would generate within San Mateo County. It does not account for economic impacts generated during the construction period, or any economic impacts that would occur outside of the county.

The economic impacts estimated by the model generally fall into one of three categories - direct, indirect, or induced. For this analysis, the direct impacts represent the household income brought into the community by new residents. Indirect impacts would normally result from demand for commodities and services provided by suppliers for business operations. (Because the direct impacts come only from household spending, and not from business activity, the indirect effects were not calculated.) Induced impacts represent the potential effects resulting from household spending at local establishments by the new workers hired as a result of increased household expenditures. These impacts affect all sectors of the economy, but primarily affect retail businesses, health services, personal services providers, and government services. The employment estimates provided by the IMPLAN3 model cover all types of jobs, including full and part time jobs.

The first analysis undertaken by the IMPLAN3 model estimated the household demand for retail goods and personal services. It is assumed that buyers and renters of new housing units in Foster City increase demand for goods and services within San Mateo County. This demand is based on the projected incomes of renters and owners for each prototype. The IMPLAN3 model's calculations are based on changes in household income, which adjusts the gross income to account for the payment of income taxes and savings.[5]

The second analysis estimated the induced impacts, or multiplier effects of new household spending in terms of jobs and wage income. The jobs and income calculations are focused on the induced jobs that would be created through local spending by the new households. The input-output model

[5] According to IMPLAN Group LLC, when the economic impact is modeled based on household income change, IMPLAN3 will adjust the input for income taxes and savings.

estimates the job impacts by detailed industry sector. The analysis took the detailed industry impact estimates and distributed them by occupational category. The occupational employment data used in the analysis came from the California Employment Development Department (EDD) Labor Market Information Division, and aggregates together data for all of California. After converting the industry level data into occupational employment, the income distribution was calculated using the occupational wage data for the San Francisco-San Mateo-Redwood City Metropolitan Division (MD) that combines San Francisco, Marin, and San Mateo counties. The average wage by occupation was used to make this calculation. The 2014 (first quarter) occupational wage data used in the analysis comes from California's EDD.

It should be noted that the figures used in the IMPLAN3 analysis reflect the demand for retail goods and services by net, new San Mateo County households. The multiplier impacts assume that all of this spending will remain in San Mateo County.[6]

HOUSEHOLD INCOME IMPACTS

Since the IMPLAN3 Model bases its household income impacts on Consumer Expenditure Survey data, income categories are used in the model instead of continuous income information. Because of this feature, the analysis sorted the renters and buyers of new market rate units into income groups, and then calculated the economic impacts based on the total income calculated for each income group.

Figure IV-1 below summarizes the household income data for condominium and apartment households. As shown, all 200 buyer households are in the income category of $150,000 or higher, with a total combined household income of $33.98 million. Figure IV-1 also demonstrates the same calculation for renter households. The rental prototype has 122 households in the $100,000-$150,000 income category, and 125 households in the over $150,000 income category. The combined total household income for renter households is $35.01 million. These total income figures, adjusted to account for taxes and savings, were used as inputs for the IMPLAN3 analysis.

EMPLOYMENT AND WAGE IMPACTS

Based on the incomes of the new buyers and renters, the next step is to determine employment and wage impacts from each prototype. Estimated employment and wages are shown in Figure IV-2 for each IMPLAN3 industry sector, indicating the number of induced jobs, the industry's share of total employment growth by prototype, and the average wage by industry. Figure IV-3 provides the same IMPLAN3 output data, organized by occupation rather than industry, for each prototype. As shown in both figures, many of the induced jobs generated within San Mateo County are in low-wage sectors and occupations related to retail and food services (restaurants). However, a significant proportion of induced jobs are in higher-paying resident-serving categories such as health care and government.

ESTIMATING WORKER-HOUSEHOLDS

Recognizing that many households have more than one wage-earner, the next step is to calculate the number of worker–households by dividing the total number of new workers by the average number of wage-earners per household in Foster City. According to the U. S. Census Bureau 2008-2012 American Community Survey 3-Year Estimate, Foster City has an average of 1.53 workers per household. The number of induced jobs is divided by 1.53 to calculate the total number of worker households. Figure IV-4 illustrates this calculation.

[6] Estimating the retail leakage would require a detailed analysis of retail sales totals for existing businesses in San Mateo County and is beyond the scope of this study.

ESTIMATING DEMAND FOR AFFORDABLE HOUSING

To estimate the demand for affordable housing, it is first necessary to determine the incomes of the new households. Once the average annual household income of worker households is calculated, the next step is to categorize households into area median income (AMI) levels based on the thresholds set by California Department of Housing and Community Development for San Mateo County. The average household size in Foster City is 2.6 (rounded to 3.0), according to the US Census American Community Survey 5-Year Estimates 2008-2012. The income threshold for a three-person household in San Mateo County was therefore used to determine the AMI categories of each new worker household.[7] Figure IV-5 indicates that of the 78.7 new worker households associated with a condominium development, there will be 63 households that need affordable housing. The comparable figure for apartment development is 74.6 households.

[7] The average Foster City household size is 2.6, according to the US Census, American Community Survey 5 Year Estimates, 2008-2012. This figure was rounded to 3.0 persons.

Figure IV-1. Estimated Incomes by Income Categories for Buyers and Renters of New Units

	Condominium Prototype			Apartment Prototype		
Income Category	**New Households**	**Aggregate Household Incomes**	**Average Household Income**	**New Households**	**Aggregate Household Incomes**	**Average Household Income**
Less than $10,000	0	$0	n/a	0	0	n/a
$10,000-$15,000	0	$0	n/a	0	0	n/a
$15,000-$25,000	0	$0	n/a	0	$0	n/a
$25,000-$35,000	0	$0	n/a	0	$0	n/a
$35,000-$50,000	0	$0	n/a	0	$0	n/a
$50,000-$75,000	0	$0	n/a	0	$0	n/a
$75,000-$100,000	0	$0	n/a	0	$0	n/a
$100,000-$150,000	0	$0	n/a	122	$14,152,000	$116,000
Over $150,000	200	$33,983,384	$169,917	125	$20,860,000	$166,880
Total	200	$33,983,384	$169,917	247	$35,012,000	$141,749

Sources: Applied Development Economics, Inc., 2015; Vernazza Wolfe Associates, Inc. and Strategic Economics, 2015.

Figure IV-2. Estimated Job and Wage Impacts of Prototypes by Industry

	Industry (NAICS code)	Average Annual Wage	Condominium Prototype Jobs	Condominium Prototype % Of Jobs	Apartment Prototype Jobs	Apartment Prototype % Of Jobs
11	Forestry, fishing, hunting, and agriculture	$38,309	0.07	0%	0.09	0%
21	Mining	$70,505	0.05	0%	0.06	0%
22	Utilities	$74,144	0.2	0%	0.25	0%
23	Construction	$68,376	2.66	2%	2.92	2%
31	Manufacturing	$66,946	0.32	0%	0.38	0%
42	Wholesale trade	$62,797	1.49	1%	1.76	1%
44	Retail trade	$54,808	18.57	15%	22.13	16%
48	Transportation & warehousing	$49,308	2.72	2%	3.08	2%
51	Information	$77,312	1.57	1%	1.91	1%
52	Finance & insurance	$71,830	5.96	5%	7.08	5%
53	Real estate & rental & leasing	$66,316	5.66	5%	6.98	5%
54	Professional, scientific & technical services	$91,389	3.68	3%	4.21	3%
55	Management of companies & enterprises	$88,955	0.15	0%	0.18	0%
56	Admin, support, waste mgt, remediation	$54,197	4.99	4%	5.92	4%
61	Educational services	$62,584	5.4	4%	5.64	4%
62	Health care and social assistance	$68,778	21.41	18%	26.63	19%
71	Arts, entertainment & recreation	$49,614	4.15	3%	4.81	3%
72	Accommodation & food services	$31,520	17.01	14%	20.87	15%
81	Other services (except public administration)	$53,217	12.15	10%	14.56	10%
91	Government	$70,961	12.18	10%	12.44	9%
	Total		120.41	100%	141.89	100%

Note: Average wage is calculated based on the mean occupational wages, and the average statewide distribution of occupations for each industry.
Sources: Applied Development Economics, 2015; IMPLAN3 input-output model, 2015; California Labor Market Information Division, 2015.

Figure IV-3. Estimated Job and Wage Impacts of Prototypes by Occupation

SOC Code	Occupational Title	Average Annual Wage	Condominium Jobs	Apartment Jobs
11-0000	Management Occupations	$146,537	5.57	6.55
13-0000	Business and Financial Operations Occupations	$95,505	5.84	6.69
15-0000	Computer and Mathematical Occupations	$104,996	2.04	2.34
17-0000	Architecture and Engineering Occupations	$100,605	1.08	1.18
19-0000	Life, Physical, and Social Science Occupations	$96,012	1.03	1.13
21-0000	Community and Social Services Occupations	$54,663	2.72	3.18
23-0000	Legal Occupations	$140,841	0.77	0.85
25-0000	Education, Training, and Library Occupations	$59,459	4.63	5.05
27-0000	Arts, Design, Entertainment, Sports, Media Occupations	$70,952	1.82	2.14
29-0000	Healthcare Practitioners and Technical Occupations	$111,876	7.70	9.43
31-0000	Healthcare Support Occupations	$41,374	3.62	4.47
33-0000	Protective Service Occupations	$61,618	3.14	3.37
35-0000	Food Preparation and Serving-Related Occupations	$27,076	18.03	21.98
37-0000	Building and Grounds Cleaning and Maintenance	$33,575	3.81	4.49
39-0000	Personal Care and Service Occupations	$33,716	8.64	10.38
41-0000	Sales and Related Occupations	$54,767	15.91	19.00
43-0000	Office and Administrative Support Occupations	$46,720	18.58	21.75
45-0000	Farming, Fishing, and Forestry Occupations	$34,770	0.13	0.14
47-0000	Construction and Extraction Occupations	$63,327	2.32	2.55
49-0000	Installation, Maintenance, and Repair Occupations	$58,564	4.34	5.10
51-0000	Production Occupations	$41,105	2.29	2.70
53-0000	Transportation and Material Moving Occupations	$42,255	6.38	7.43
	Total		120.41	141.89

Sources: Applied Development Economics, 2015; IMPLAN3 input-output model, 2015; California Labor Market Information Division, 2015.

Figure IV-4. Induced Employment Impacts, Foster City

Project Prototype	Condominium	Apartment
Number of Units	200	247
Induced Employment (Workers)	120.4	141.9
Average Number of Workers per Household	1.53	1.53
New Worker Households	78.7	92.7

Sources: Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015

Figure IV-5. New Worker Households by Income Group for Condominium and Apartment Prototypes

Worker Households by Income Category	Income Thresholds (3-Person Household)	Condominium	Apartment
Households Requiring Affordable Housing			
Very Low Income (<=50% AMI)	$50,900	20	24.2
Low Income (51-80% AMI)	$81,450	20.2	23.8
Moderate Income (81-120% AMI)	$92,700	22.8	26.4
Subtotal		63.0	74.4
Above Moderate Income Households	>$92,700	15.7	18.4
Total All Worker Households		78.7	92.7

Sources: Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015

V. AFFORDABILITY GAP ANALYSIS

Estimating the housing affordability gap is necessary to calculate the maximum potential housing impact fee. This affordability gap analysis was conducted at the county-wide level so that it can be applied to all the jurisdictions in San Mateo County participating in the multi-city nexus study.[8] This section summarizes the approach to calculating the housing affordability gap and the results of the analysis.

METHODOLOGY

The housing affordability gap is defined as the difference between what very low, low, and moderate income households can afford to pay for housing and the development cost of new, modest housing units. Calculating the housing affordability gap involves the following three steps:

1. Estimating affordable rents and housing prices for households in target income groups.

2. Estimating development costs of building new, modest housing units, based on current cost and market data.

3. Calculating the different between what renters and owners can afford to pay for housing and the cost of development of rental and ownership units.

The housing affordability gap is estimated at a countywide level, and assumed to be the same for all the jurisdictions participating in the multi-city nexus studies, for the following reasons:

- Both the California Department of Housing and Community Development Department (HCD) and U.S. Housing and Urban Development Department (HUD) define the ability to pay for housing at the county (rather than the city) level. Existing affordable housing studies and policies in most jurisdictions rely on these countywide area median income (AMI) estimates published by HCD or by HUD. This analysis uses 2014 income limits published by California Department of Housing and Community Development (HCD).

- Construction costs for housing and commercial development do not vary dramatically between different jurisdictions in San Mateo County, because the cost of labor and materials is regional in nature.

Although land costs vary widely in San Mateo County, the study estimated a single land value for the county based on data provided by developers of recently built projects. These costs are at the low end of recent land sales, as described below. Additionally, because the land costs used in the analysis are from 2012 and 2013, and land values have escalated rapidly since then, the resulting affordability gap will be slightly lower than if the analysis incorporated 2014 land costs, providing a conservative estimate of the affordability gap.

[8] Although there is a single housing affordability gap estimate for all jurisdictions in the county, the subsequent steps in the fee calculation considers market and household characteristics for Foster City, generating a unique maximum fee for each jurisdiction in the county, as described in Section V.

ESTIMATING AFFORDABLE RENTS AND SALES PRICES

The first step in calculating the housing affordability gap is to determine the maximum amount that households at the targeted income levels can afford to pay for housing. For eligibility purposes, most affordable housing programs define very low income households as those earning approximately 50 percent or less of area median income (AMI), low income households as those earning between 51 and 80 percent of AMI, and moderate income households as those earning between 81 and 120 percent of AMI. In order to ensure that the affordability of housing does not use the top incomes in each category, the analysis uses a point within the income ranges for the low and moderate income groups.[9]

Figure V-1 and Figure V-2 show the calculations for rental housing. The maximum affordable monthly rent is calculated as 30 percent of gross monthly household income, minus a deduction for utilities. For example, a very low income, three-person household could afford to spend $1,273 on total monthly housing costs. After deducting for utilities, $1,220 a month is available to pay for rent.

Figure V-3 and Figure V-4 demonstrate housing affordability for homeowners. Homeowners are assumed to pay a maximum of 35 percent of gross monthly income on total housing costs, depending on income level. The maximum affordable price for for-sale housing is then calculated based on the total monthly mortgage payment that a homeowner could afford, using standard loan terms used by CalHFA programs and many private lenders for first-time homebuyers, including a five percent down payment (Figure V-3). For example, a moderate income, three-person household could afford to spend $2,974 a month on total housing costs, allowing for the purchase of a $348,526 home. Key assumptions used to calculate the maximum affordable rents and housing prices are discussed below.

- **Unit types:** For rental housing, the analysis included studios, one-, two-, and three-bedroom units. For for-sale housing, one-, two-, and three-bedroom units were included. These unit types represent the affordable and modest market-rate apartment and condominium units available in San Mateo County. Condominiums were used to represent modest for-sale housing because single-family homes in San Mateo County tend to be significantly more expensive than condominiums.
- **Occupancy and household size assumptions.** Because income levels for affordable housing programs vary by household size, calculating affordable unit prices requires defining household sizes for each unit type. Consistent with California Health and Safety Code Section 50052.5(h), unit occupancy was generally estimated as the number of bedrooms plus one. For example, a studio unit is assumed to be occupied by one person, a one bedroom unit is assumed to be occupied by two people, and so on. Several adjustments to this general assumption were made in order to capture the full range of household sizes. In particular, it is assumed that one-bedroom condominiums could be occupied by one- or two-person households, and three-bedroom apartments and condominiums could be occupied by four- or five-person households.[10]

[9] For rental housing, 70 percent of AMI is used to represent low income households and 90 percent of AMI is used to represent moderate income households. For ownership housing, it is assumed that moderate income homebuyers may earn slightly less than the maximum for that income category (110 percent of AMI). Higher income limits are used for ownership than for rental housing because ownership housing is more expensive to purchase and maintain.

[10] For these unit types, the maximum affordable home price (or rent) is calculated as the average price (or rent) that the relevant household sizes can afford to pay. For example, the maximum affordable home price for a one-bedroom condominium is calculated as the average of the maximum affordable home price for one- and two-person households.

- **Targeted income levels for rental housing:** For rental housing, affordable rents were calculated for very low income, low income, and moderate income households (see Figure V-1 and Figure V-2). For eligibility purposes, most affordable housing programs define very low income households as those earning 50 percent or less of area median income (AMI), low income households as those earning between 51 and 80 percent of AMI, and moderate income households as those earning between 81 and 120 percent of AMI. However, defining affordable housing expenses based at the top of each income range would result in prices that are not affordable to most of the households in each category. Thus, this analysis does not use the maximum income level for all of the income categories. Instead, for rental housing, 70 percent of AMI is used to represent moderate income households and 90 percent of AMI is used to represent moderate income households.
- **Targeted income levels for ownership housing** For ownership housing, affordable home prices were calculated only for moderate income households (see Figure V-3 and Figure V-4). Higher income limits are used for ownership than for rental housing because ownership housing is more expensive to purchase and maintain. It is assumed that moderate income homebuyers may earn slightly less than the maximum for that income category (110 percent of AMI).
- **Maximum monthly housing costs.**[11] For all renters, maximum monthly housing costs are assumed to be 30 percent of gross household income. For homebuyers, 35 percent of gross income is assumed to be available for monthly housing costs, reflecting the higher incomes of this group.[12] These standards are based on California's Health & Safety Code Sections 50052.5 and 50053.
- **Utilities.** The monthly utility cost assumptions are based on utility allowances calculated by the U.S. Department of Housing and Urban Development for San Mateo County.[13] Both renters and owners are assumed to pay for heating, cooking, other electric, and water heating. In addition, owners are assumed to pay for water and trash collection.[14]
- **Mortgage terms and costs included for ownership housing.** The mortgage calculations are based on the terms typically offered to first-time homebuyers (such as the terms offered by the California Housing Finance Authority), which is a 30-year mortgage with a five percent down payment. A five percent down payment standard is also used by many private lenders for first-time homebuyers. Based on recent interest rates to first-time buyers, the analysis assumes a 5.375 percent annual interest rate.[15] In addition to mortgage payments and utilities,

[11] The calculation of homeowner affordability is conservative in that the model accounts for additional costs for buyers (such as utility costs) that might not be considered by all lenders.

[12] The assumption that homebuyers spend 35 percent of gross household income on housing results in a lower affordability gap than if 30 percent of gross household income were used instead.

[13] U.S. Department of Housing and Urban Development, "Allowances for Tenant-Furnished Utilities and Other Services: Housing Authority of San Mateo County," November 2013.

[14] Units are assumed to have natural gas heating, cooking, and water heating systems, as natural gas is the most common fuel for units located in San Mateo County. Sources: U.S. Census Bureau, 2012 American Community Survey, "Table B25117: Tenure by House Heating Fuel," San Mateo County; U.S. Census Bureau, 2011 American Housing Survey, "Table C-03-AH-M, San Francisco-San Mateo-Redwood City: Heating, Air Conditioning, and Appliances – All Housing Units."

[15] Sources: CalHFA Mortgage Calculator, accessed March 2014; Zillow.com, "Current Mortgage Rates and Home Loans," accessed March 2014; interviews with California Housing Finance Agency (CalHFA) Preferred Loan Officers, March 2014.

monthly ownership housing costs include homeowner association (HOA) dues,[16] property taxes,[17] private mortgage insurance,[18] and hazard and casualty insurance.[19]

[16] HOA fees are estimated at $300 per unit per month, based on common HOA fees in San Mateo County as reported in: Polaris Pacific, "Silicon Valley Condominium Market," February 2014.

[17] The annual property tax rate is estimated at 1.18 percent of the sales price, based on the average total tax rate for San Mateo County (calculated from County of San Mateo, 2008-09 Property Tax Highlights http://www.co.sanmateo.ca.us/Attachments/controller/Files/PTH/PTH_2009.pdf) and discussions with Preferred Loan Officers.

[18] The annual private mortgage insurance premium rate is estimated at 0.89 percent of the total mortgage amount, consistent with standard requirements for conventional loans with a five percent down payment. Sources: Genworth, February 2014; MGIC, December 2013; Radian, April 2014.

[19] The annual hazard and casualty insurance rate is assumed to be 0.35 percent of the sales price, consistent with standard industry practice.

Figure V-1. Calculation of Affordable Rents in San Mateo County by Household Size, 2014

Persons per Household (HH)	1	2	3	4	5
Very Low Income (50% AMI)					
Maximum Household Income at 50% AMI	$39,600	$45,250	$50,900	$56,550	$61,050
Maximum Monthly Housing Cost (a)	$990	$1,131	$1,273	$1,414	$1,526
Utility Deduction	$29	$40	$53	$68	$68
Maximum Available for Rent (HH Size) (b)	$961	$1,091	$1,220	$1,346	$1,458
Low Income (70% AMI)					
Maximum Household Income at 70% AMI	$50,470	$57,680	$64,890	$72,100	$77,875
Maximum Monthly Housing Cost (a)	$1,262	$1,442	$1,622	$1,803	$1,947
Utility Deduction	$29	$40	$53	$68	$68
Maximum Available for Rent (HH Size) (b)	$1,233	$1,402	$1,569	$1,735	$1,879
Moderate Income (90% AMI)					
Maximum Household Income at 90% AMI	$64,890	$74,160	$83,430	$92,700	$100,125
Maximum Monthly Housing Cost (a)	$1,622	$1,854	$2,086	$2,318	$2,503
Utility Deduction	$29	$40	$53	$68	$68
Maximum Available for Rent (HH Size) (b)	$1,593	$1,814	$2,033	$2,250	$2,435

Notes:

(a) 30 percent of maximum monthly household income.

(b) Maximum monthly housing cost minus utility deduction.

Acronyms:

AMI: Area median income

HH: Household

Sources: California Department of Housing and Community Development, 2014; U.S. Department of Housing and Urban Development, 2013; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

Figure V-2. Calculation of Affordable Rents in San Mateo County by Unit Type, 2014

Affordable Rents by Unit Type (a)	Studio (1 person)	1 Bedroom (2 persons)	2 Bedroom (3 persons)	3 Bedroom (4 and 5 persons)
Very Low Income (50% AMI)	$961	$1,091	$1,220	$1,402
Low Income (70% AMI)	$1,233	$1,402	$1,569	$1,807
Moderate Income (90% AMI)	$1,593	$1,814	$2,033	$2,342

Notes:
(a) Affordable rents are calculated as follows: Studios are calculated as one-person households; One-bedroom units are calculated as two-person households; Two-bedroom units are calculated as three-person households; Three-bedroom units are calculated as an average of four and five person households. See Figure V-1.

Sources: California Department of Housing and Community Development, 2014; U.S. Department of Housing and Urban Development, 2013; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

Figure V-3. Calculation of Affordable Sales Prices in San Mateo County by Household Size, 2014

Persons per Household (HH)	**1**	**2**	**3**	**4**	**5**
Moderate Income (110% AMI)					
Maximum Household Income at 110% AMI (a)	$79,310	$90,640	$101,970	$113,300	$122,375
Maximum Monthly Housing Cost (b)	$2,313	$2,644	$2,974	$3,305	$3,569
Monthly Deductions					
Utilities	$106	$106	$130	$156	$156
HOA Dues	$300	$300	$300	$300	$300
Property Taxes and Insurance (c)	$517	$607	$690	$773	$844
Monthly Income Available for Mortgage Payment (d)	$1,390	$1,631	$1,854	$2,076	$2,269
Maximum Mortgage Amount (e)	$248,195	$291,274	$331,100	$370,795	$405,155
Maximum Affordable Sales Price - HH Size (f)	$261,258	$306,604	$348,526	$390,311	$426,479

Notes:

(a) Calculated as 110 percent of the median household income reported by HCD for each household size.

(b) Maximum housing cost is estimated at 35 percent of household income for homebuyers.

(c) Assumes annual property tax rate of 1.18 percent of sales price; annual private mortgage insurance premium rate of 0.89 percent of mortgage amount; annual hazard and casualty insurance rate of 0.35 percent of sales price.

(d) Maximum monthly housing cost minus deductions

(e) Assumes 5.375 percent interest rate and 30 year loan term

(f) Assumes 5 percent down payment (75 percent loan-to-value ratio)

Acronyms:

AMI: Area median income

HH: Household

HOA: Home owners association

Sources: California Department of Housing and Community Development, 2014; U.S. Department of Housing and Urban Development, 2013; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

Figure V-4. Calculation of Affordable Sales Prices in San Mateo County by Unit Type, 2014

Affordable Sales Price by Unit Type (a)	1 Bedroom (1 and 2 persons)	2 Bedroom (3 persons)	3 Bedroom (4 and 5 persons)
Moderate Income (110% AMI)	$283,931	$348,526	$408,395

Notes:
(a) Affordable sales prices are calculated as follows: One-bedroom units are calculated as an average of one- and two-person households; Two-bedroom units are calculated as three-person households; Three-bedroom units are calculated as an average of four and five person households. See Figure V-3.

Sources: California Department of Housing and Community Development, 2014; U.S. Department of Housing and Urban Development, 2013; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

ESTIMATING HOUSING DEVELOPMENT COSTS

The second step in calculating the housing affordability gap is to estimate the cost of developing new, modest housing units. Modest housing is defined slightly differently for rental and ownership housing. For rental housing, the costs and characteristics of modest housing are similar to recent projects developed in San Mateo County by the affordable rental housing sector. Modest for-sale housing is assumed to be non-luxury multifamily (condominium) development because single-family homes in San Mateo County tend to be significantly more expensive than condominiums; many of the new single-family homes in the county are custom-built luxury units that are too costly to meet the standard for modest housing.

The calculation of housing development costs used in the housing affordability gap requires several steps. Because the gap covers both rental housing and for-sale housing, it is necessary to estimate costs for each. The following describes the data sources used to calculate rental and for-sale housing development costs.

Rental Housing

Rental housing development costs were based on pro forma data obtained from three recent affordable housing projects in San Mateo County. Figure V-5 shows the location and description of these projects and summarizes the information that was used to generate a per-square-foot cost of $410 used in the cost analysis. These costs include site acquisition costs, hard costs (on- and off-site improvements), soft costs (such as design, city permits and fees, construction interest, and contingencies), and developer fees. The costs from the rental housing pro formas were also cross-referenced against proprietary pro formas available to the consultant team from other private development projects in order to ensure accuracy.

Since these projects assumed state and federal funding, the labor costs included in the original pro formas reflect the prevailing wage requirement imposed by state and local governments. The costs shown in Figure V-5 have been adjusted to subtract out the prevailing wage requirement because the development cost model used in the housing affordability gap analysis does not assume receipt of government subsidies. A rule of thumb used by local economists who assist affordable housing developers in obtaining public financing, is to estimate that, under the prevailing wage requirement, labor costs are 25 percent higher than would otherwise be the case. Therefore, on-site and off-site improvement costs obtained from the original pro formas are reduced by 25 percent to reflect actual labor costs that would apply to construction projects that do not have these requirements.[20] Finally, on average, land acquisition costs accounted for 20 percent or less of these total adjusted costs.

[20] These prevailing wage requirements refer only to labor cost requirements on construction projects that receive funding from the state or federal government. These are not the same as minimum wage requirements that individual cities may adopt. .

Figure V-5. Affordable Housing Project Pro Forma Data

Project Description	Project 1	Project 2	Project 3
Location	San Mateo	San Mateo	San Bruno
Year Built	2013	2010	2011
Land Area (acres)	1.05	1.0	0.63
Gross Building Area (SF)	106,498	127,718	42,688
Net Building Area (SF)	56,075	67,850	33,297
Number of Units	60	68	42
Parking Type	Podium	Underground	Structure
Parking Spaces/ Unit	1.82	1.55	1.0
Land Acquisition Costs	$3,157,000 ($69 per SF of land)	$5,543,600 ($127 per SF of land)	$2,096,500 ($76 per SF of land)
Project Costs per SF of Net Building Area			
Land Cost (a)	$56	$82	$63
Hard Costs (b)	$228	$216	$187
Soft Costs (c)	$93	$99	$114
Developer Fees	$25	$21	$39
Total Project Costs (d)	$402	$417	$403

Notes:
(a) Calculated per square foot of net building area.
(b) Excludes prevailing wage requirements for on-site and off-site hard costs.
(c) Includes design, engineering, city permits and fees, construction interest, contingencies, legal, etc.
(d) Total costs include developer fees.
Acronyms:
SF: Square feet
Source: Confidential Pro Forma Data; Vernazza Wolfe Associates, Inc; Strategic Economics, 2014.

To ensure that the land value assumptions used in the rental development cost estimates (ranging from $69 to $127 per square foot of land) were reasonable, the consultant team analyzed recent sales of vacant properties in San Mateo County using DataQuick, a commercial vendor that tracks real estate transactions. Cities with fewer than three vacant land transactions were excluded from the analysis. As shown below in Figure V-6, land values in San Mateo County are highly variable from city to city, ranging from $45 to $300 per square foot; the average sales price for the selected sites in the County was $189 per square foot. The analysis demonstrates the land cost assumptions used to calculate rental housing costs (in Figure V-5) represent the lower range of current land values.

Figure V-6. Sales of Vacant Lands in San Mateo County, 2014

Jurisdiction	Number Transactions	Average Sales Price	Average Site Size (SF)	Average Sales Price/ SF Land
Belmont	4	$920,000	6,383	$165
Menlo Park	6	$1,239,500	5,802	$220
Pacifica	4	$487,000	7,221	$111
San Bruno	13	$933,769	3,259	$295
San Mateo	8	$1,314,188	5,424	$300
Unincorporated San Mateo County	4	$224,250	5,194	$45
Average of Records		$853,118	5,547	$189

Notes: Includes data from cities with 3 or more transactions of vacant land in San Mateo County from January through May 2014. Records with missing sales or land area information were eliminated.
Acronyms:
SF: Square feet

Sources: DataQuick, January-May 2014; Vernazza Wolfe Associates, Inc; Strategic Economics, 2014.

For-Sale Housing

Since affordable housing developers do not typically build for-sale housing in San Mateo County, the cost of developing new, modest for-sale housing was estimated using two data methods: the first method used price data for recently built condominium units as a proxy for development costs; the second approach estimated development costs based on published market and cost data for similar projects in San Mateo County. Each of these cost estimate approaches is described in more detail below.

Review of condominium sales data – In this approach, average sales prices from condominium units built in San Mateo County between 2008 and 2012 are used as a proxy for development costs. [21] This approach assumes that construction costs, land costs, soft costs, and developer profit are all included in the unit sales price. Using data provided by DataQuick, the consultant team analyzed sales prices of condominium units of various sizes in the seven cities that experienced condominium development that exceeded 10 units in the aggregate between 2008 and 2012. These seven cities included Brisbane, East Palo Alto, Millbrae, Redwood City, San Carlos, San Mateo City, and South San Francisco. The other jurisdictions in San Mateo County experienced little or no condominium development during this time period. Figure V-7 summarizes the information that was used to generate a per-square-foot cost for condominium development of $420.

Cost estimate of hypothetical condominium project - The second approach relied on published industry data sources and recent financial feasibility studies to estimate the development costs of a hypothetical condominium project, as described in Figure V-8.[22] Land costs were estimated based on recent DataQuick land transactions shown in Figure V-6. RS Means cost data, adjusted for the Bay Area's construction costs, was used to calculate hard costs. Based on a review of recent financial

[21] Ideally, cost estimates would be based only on projects built in the last year or two. However, the decline in new construction after 2007 necessitated that the analysis use several years' worth of data in order to estimate for-sale housing costs. Since costs are not adjusted for inflation, they may be slightly lower than actual costs required for a new project to be built in 2014 or 2015. This approach is more conservative – and likely more accurate – than applying across-the-board inflation factors to historic costs. Furthermore, the increasing cost of residentially zoned, high density parcels is the main source of development cost increase. Adjusting land costs for inflation is not easily done.

[22] The hypothetical condominium building type is a Type V building with underground parking and floor-area ratio of 1.7. The building characteristics are described in Figure IV-8.

feasibility analyses in the Bay Area, soft costs were estimated at 30 percent of hard costs, and developer fees and profits were estimated at 12 percent of hard and soft costs. Using this second method, the development costs are estimated at $495 per net square foot of building area. In order to ensure that the results of the affordability gap analysis are conservative, the lower development cost estimate of $420 per net square foot was selected for ownership units.

Figure V-7. Condominium Sales: Average Unit Characteristics and Prices for Selected Cities in San Mateo County (2008-2012)

Jurisdiction	Average Number of Bathrooms	Average Number of Bedrooms	Average Square Feet	Average Price per Square Foot	Average Unit Price
Brisbane	1.2	1.5	892	$413	$368,625
East Palo Alto	1.8	1.3	1,029	$340	$349,991
Millbrae	1.9	2	1,290	$429	$553,893
Redwood City	2.7	2.9	1,933	$402	$776,655
San Carlos	1.8	1.8	1,066	$508	$541,932
San Mateo City	2.3	2.2	1,545	$439	$677,430
South San Francisco	1.7	1.8	981	$427	$418,740
Average	1.9	1.9	1,248	$423	$527,401

Sources: DataQuick, Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

Figure V-8. Estimate of Development Costs of Hypothetical Condominium Project

Building Characteristics	
Land Area (SF)	110,727
Gross Building Area (SF)	188,235
Net Building Area (SF)	160,000
Number of Units	100
Parking Type	Underground
Floor-area ratio (FAR)	1.7
Density (units per acre)	39
Average Unit Size	1,600
Land Acquisition Costs per Square Foot (a)	$189
Development Cost	**Cost per Net SF**
Land Cost (b)	$131
Hard Costs	$250
Soft Costs (c)	$75
Developer Fees (d)	$39
Total Development Costs	$495

Notes:

(a) Land value is calculated based on DataQuick records of vacant land transactions in the county. See Figure IV-6.
(b) Calculated based on RS Means cost estimates per square foot of net building area.
(c) Estimated at 30 percent of hard costs. Includes design, engineering, city permits and fees, construction interest, contingencies, legal, etc.
(d) Estimated at 12 percent of hard costs and soft costs.
Acronyms:
SF: square feet
Sources: RS Means, 2014; DataQuick 2014; Recent financial feasibility studies; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

Cost Estimates by Unit Size

The data sources described above also provided information on estimated unit sizes**.** Unit size information is needed to translate costs/sales prices per square foot to unit costs. Unit sizes are estimated separately for rental and for-sale units. For the rental units, the recent inventory of projects developed by MidPen Housing was analyzed. For ownership units, the average sizes of recently built condominium units (Figure V-7) were analyzed.

Figure V-9 provides the unit sizes and development cost estimates for rental units. Per-unit development costs were calculated by multiplying average unit sizes by the per-square foot development costs of $410. Rental unit costs range from $205,000 for studio units to $479,700 for three-bedroom units.

Figure V-10 summarizes the costs of condominium units. The per-unit costs were derived by multiplying the average unit size by the development cost per square foot of $420. Condominium development costs range from $357,000 for one-bedroom units to $672,000 for three-bedroom units.

Figure V-9. Rental Housing Unit Sizes and Development Costs

Unit Type	Estimated Cost per Net SF	Unit Size (net SF)	Development Costs
Studio	$410	500	$205,000
One bedroom	$410	700	$287,000
Two bedroom	$410	970	$397,700
Three bedroom	$410	1,170	$479,700

Acronyms:
SF: Square feet
Sources: Confidential Pro Forma Data; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

Figure V-10. For-Sale Housing Unit Sizes and Development Costs

Unit Type	Estimated Cost per Net SF	Unit Size (net SF)	Development Costs
One bedroom	$420	850	$357,000
Two bedroom	$420	1,200	$504,000
Three bedroom	$420	1,600	$672,000

Acronyms:
SF: Square feet
Sources: DataQuick, 2014; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

CALCULATING THE HOUSING AFFORDABILITY GAP

The final step in the analysis is to calculate the housing affordability gap, or the difference between what renters and owners can afford to pay and the total cost of developing new units. The purpose of the housing affordability gap calculation is to help determine the fee amount that would be necessary to cover the cost of developing housing for very low, low, and moderate income households. The calculation does not assume the availability of any other source of housing subsidy because not all "modest" housing is built with public subsidies, and tax credits and tax-exempt bond financing are highly competitive programs that will not always be available to developers of modest housing units.

Figure V-11 shows the housing affordability gap calculation for rental units. For each rental housing unit type and income level, the gap is defined as the difference between the per-unit cost of development and the supportable debt per unit. The supportable debt is calculated based on the net operating income generated by an affordable monthly rent, incorporating assumptions about operating expenses (including property taxes, insurance, etc.), reserves, vacancy and collection loss, and mortgage terms based on discussions with local affordable housing developers. Because household sizes are not uniform and the types of units each household may occupy is variable, , the average housing affordability gap is calculated by averaging the housing affordability gaps for the various unit sizes.

Figure V-12 shows the housing affordability gap calculation for ownership units. For each unit type, the gap is calculated as the difference between the per-unit cost of development and the affordable sales price for each income level. As with rental housing, the average housing affordability gap for each income level is calculated by averaging the housing affordability gaps across unit sizes in order to reflect that households in each income group vary in size, and may occupy any of these unit types.

Finally, the tenure-neutral estimates of the housing affordability gap were estimated for very low, low, and moderate income households (Figure V-13). Because very low and low income households that are looking for housing in today's market are much more likely to be renters, an ownership gap was not calculated for these income groups. The rental gap represents the overall affordability gap for these two income groups. On the other hand, moderate income households could be either renters or owners. Therefore, the rental and ownership gaps are averaged for this income group to calculate the overall affordability gap for moderate income households. The calculated average affordability gap per unit is $280,783 for very low income households; $240,477 for low income households, and $175,558 for moderate income households. The housing affordability gap is highest for very low income households because those households with higher incomes can afford to pay more for housing.

Figure V-11. Housing Affordability Gap Calculation for Rental Housing

Income Level and Unit Type	Unit Size (SF)	Maximum Monthly Rent (a)	Annual Income	Net Operating Income (b)	Available for Debt Service (c)	Supportable Debt (d)	Development Costs (e)	Affordability Gap
Very Low Income (50% AMI)								
Studio	500	$961	$11,532	$3,455	$2,764	$36,552	$205,000	$168,448
1 Bedroom	700	$1,091	$13,095	$4,940	$3,952	$52,259	$287,000	$234,741
2 Bedroom	970	$1,220	$14,634	$6,402	$5,122	$67,725	$397,700	$329,975
3 Bedroom	1,170	$1,402	$16,824	$8,483	$6,786	$89,733	$479,700	$389,967
Average Affordability Gap								**$280,783**
Low Income (70% AMI)								
Studio	500	$1,233	$14,793	$6,553	$5,243	$69,323	$205,000	$135,677
1 Bedroom	700	$1,402	$16,824	$8,483	$6,786	$89,733	$287,000	$197,267
2 Bedroom	970	$1,569	$18,831	$10,389	$8,312	$109,902	$397,700	$287,798
3 Bedroom	1,170	$1,807	$21,680	$13,096	$10,477	$138,535	$479,700	$341,165
Average Affordability Gap								**$240,477**
Moderate Income (90% AMI)								
Studio	500	$1,593	$19,119	$10,663	$8,530	$112,796	$205,000	$92,204
1 Bedroom	700	$1,814	$21,768	$13,180	$10,544	$139,417	$287,000	$147,583
2 Bedroom	970	$2,033	$24,393	$15,673	$12,539	$165,796	$397,700	$231,904
3 Bedroom	1,170	$2,342	$28,108	$19,202	$15,362	$203,127	$479,700	$276,573
Average Affordability Gap								**$187,066**

Notes:
(a) Affordable rents are based on State of California Housing and Community Development FY 2014 Income Limits for San Mateo County. See Figure V-2.
(b) Amount available for debt. Assumes 5% vacancy and collection loss and $7,500 per unit per year for operating expenses and reserves based on recently built (2012-2014) and proposed affordable housing projects in the San Francisco Bay Area.
(c) Assumes 1.25 Debt Coverage Ratio.
(d) Assumes 6.38%, 30 year loan. Calculations based on annual payments.
(e) Assumes $410/SF for development costs based on comparable project pro formas.
(f) Calculated as the difference between development costs and supportable debt.
Acronyms:
SF: Square feet
AMI: Area median income
Sources: Housing and Community Development, 2014; Selected San Mateo Rental Housing Pro Formas; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure V-12. Housing Affordability Gap Calculation for For-Sale Condominium Housing

Income Level and Unit Type	Unit Size (SF)	Affordable Sales Price (a)	Development Costs (b)	Affordability Gap (c)
Moderate Income (110% of AMI)				
1 Bedroom	850	$283,931	$357,000	$73,069
2 Bedroom	1,200	$348,526	$504,000	$155,474
3 Bedroom	1,600	$408,395	$672,000	$263,605
Average Affordability Gap				**$164,049**

Notes:
(a) See calculation in Figure V-3.
(b) Assumes $420/SF for development costs, based on recent condominium sales data.
(c) Calculated as the difference between development cost and affordable sales price.
Acronyms:
SF: Square feet
AMI: Area median income
Sources: DataQuick Sales Data, 2008-2012; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure V-13. Average Housing Affordability Gap by Income Group

Income Level	Rental Gap	Ownership Gap	Average Affordability Gap
Very Low Income (50% AMI)	$280,783	N/A	$280,783
Low Income (70% - 80% AMI) (a)	$240,477	N/A	$240,477
Moderate Income (90% - 110% AMI) (b)	$187,066	$164,049	$175,558

Notes:
(a) Low income households are defined at 70 percent of AMI for renters and 80 percent of AMI for owners.
(b) Moderate income households are defined at 90 percent of AMI for renters and 110 percent AMI for owners.
Acronyms: AMI: Area median income.
Source: Vernazza Wolfe Associates, Inc. and Strategic Economics, 2015.

VI. NEXUS FEES AND REQUIREMENTS

This section builds on the findings of the previous analytical steps to calculate maximum justified housing impact fees for each prototype.

MAXIMUM FEE CALCULATION

To derive the maximum nexus-based fee, the housing affordability gap is applied to the number of lower-income worker households linked to the prototypes. This is the basis for developing an estimate of the total affordability gap for each prototype. The total gap for each prototype is then divided by the number of units in the development prototype to calculate a single maximum fee per unit.

Figure VI-1 presents the results of the nexus fee calculation for the condominium prototype. The per unit housing affordability gap number is multiplied by the number of income-qualified worker households linked to the prototype to estimate the total gap. The total affordability gap is then divided by the number of units in the prototype to derive the maximum fee per unit, estimated at $72,380 per unit. The same steps are taken for the rental apartment prototype to estimate the maximum fee per unit, as shown in Figure VI-2. The calculated maximum fee is $69,377 per apartment unit.

The fees can also be calculated on per-square-foot basis by dividing the total gap by the net residential area for each prototype. The maximum fee per square foot is $45 for the 323,000-square-foot condominium prototype (Figure VI-3) and $80 for the 214,900-square-foot apartment prototype (Figure VI-4). The calculated fee per square foot is higher for the apartment prototype than for the condominium prototype because the apartment prototype has a higher number of units (247 units), but a smaller total net residential area (due to smaller unit sizes).

The per-unit and per-square-foot fees shown in the tables below express the total nexus-based fees for new market-rate condominium and rental apartment development in Foster City. They represent the maximum justified fees based on the nexus analysis that could be imposed on new development. The city may adopt fees or require mitigations at a lower level than these justified fees, depending on financial feasibility and other policy considerations.

Figure VI-1. Maximum Per-Unit Fee for Condominium Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Total Affordability Gap	Number Units in Prototype	Total Fee Per Unit
Very Low Income (<=50% AMI)	$280,783	20.0	$5,615,655		
Low Income (51-80% AMI)	$240,477	20.2	$4,857,633		
Moderate Income (81-120% AMI)	$175,558	22.8	$4,002,716		
Total			$14,476,005	200	$72,380

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure VI-2. Maximum Per-Unit Fee for Apartment Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Total Affordability Gap	Number Units in Prototype	Total Fee Per Unit
Very Low Income (<=50% AMI)	$280,783	24.2	$6,789,327		
Low Income (51-80% AMI)	$240,477	23.8	$5,713,731		
Moderate Income (81-120% AMI)	$175,558	26.4	$4,632,968		
Total			$17,136,027	247	$69,377

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure VI-3. Maximum Fee per SF for Condominium Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Total Affordability Gap	Net Residential Area (SF)	Total Fee Per SF
Very Low Income (<=50% AMI)	$280,783	20.0	$5,615,655		
Low Income (51-80% AMI)	$240,477	20.2	$4,857,633		
Moderate Income (81-120% AMI)	$175,558	22.8	$4,002,716		
Total			$14,476,005	323,200	$45

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; IMPLAN 3 via Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Figure VI-4. Maximum Fee per SF for Apartment Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Total Affordability Gap	Net Residential Area (SF)	Fee per SF
Very Low Income (<=50% AMI)	$280,783	24.2	$6,789,327		
Low Income (51-80% AMI)	$240,477	23.8	$5,713,731		
Moderate Income (81-120% AMI)	$175,558	26.4	$4,632,968		
Total			$17,136,027	214,900	$80

Sources: California Housing and Community Development; Individual lenders; Affordable and market-rate project pro formas; DataQuick, 2014; RS Means, 2014; IMPLAN 3 via Applied Development Economics, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

INCLUSIONARY HOUSING REQUIREMENTS

In addition to establishing the maximum potential justified fee for new development projects, the nexus results described above can also be used to establish the percentage of inclusionary units under the City's current program. At present, inclusionary housing is one of the primary tools for providing affordable housing units in Foster City. Foster City currently has an inclusionary policy in the General Plan that requires that 20 percent of units in new developments be affordable housing units. The requirements for the City's Inclusionary Zoning Program were not based on a nexus study but established through a policy process. The affordability levels for the inclusionary units are determined on a case by case basis, and developers have historically built the units within their projects.[23] If the City adopts a housing impact fee, it could replace its inclusionary zoning program with an impact fee program that still allows developers the option of providing affordable units; or it could continue to require on-site units in for-sale projects.

The principal way in which the equivalent inclusionary percentage can be estimated from the nexus analysis is by taking the total number of households requiring affordable housing (for each prototype) and dividing this number by the number of total units in each prototype. Figure VI-5 presents the results of this estimate. The analysis indicates that approximately 30 percent of new units in both prototypes could be sold or rented and be consistent with the findings of this impact fee study. The nexus-based inclusionary percentage rate is higher than the City's existing inclusionary policy.

Figure VI-5. Calculated Inclusionary Rates Based on Potential Housing Impact Fees

	Households Requiring Affordable Housing	Total Units in Prototype	Calculated Inclusionary Rate
Condominiums	63	200	32%
Apartments	74.3	247	30%

Sources: Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

SUMMARY OF CONSERVATIVE ASSUMPTIONS

The housing impact fee nexus analysis methodology utilizes conservative assumptions that result in a lower estimate of the nexus-supported maximum fee. Some of the conservative assumptions undertaken in the analysis include the following:

- **Prices and rental rates for new development**. Because there has been little new housing development completed in San Mateo County, the sale prices and rental rates for new market-rate housing are based on older market data. The rental rates and sale prices for projects that are coming on the market today are significantly higher. The use of lower prices and rents results reduces the total nexus fee calculation.

- **Economic impact analysis model**. The IMPLAN3 model only measures the impacts of new market-rate housing development in San Mateo County. It does not measure any of the impacts that could be occurring in other Bay Area counties. The economic impact analysis is modeled on a household income change approach, which adjusts for income taxes and savings when calculating the employment impacts of new households.

[23] In-lieu fees have not been adopted in Foster City.

- **Cost estimates for affordability gap analysis.** The affordability gap analysis measures the difference between what households can afford to pay for housing and the cost of new housing units. To ensure that the gap is conservative, the development cost estimates are based on the lower range of land and construction costs in San Mateo County. In many sub-areas of the county, including priority-development areas and downtown locations, land costs for housing sites may be higher, particularly under today's market conditions.

- **Exclusion of extremely low income households**. Although new market-rate housing development could potentially have impacts on affordable housing demand from extremely low income households, those impacts are not included in the analysis, thereby reducing the total fee calculation.

- **Affordability gap for owner households**. The calculation of the affordability gap for ownership households only considers moderate-income households. Low and very low income households are not considered in the calculation. This also results in a lower estimate of the maximum fee.

- **Feasibility analysis**. The analysis takes into account the financial feasibility of adding the maximum impact fee and reduced fee levels to the total cost of new development. The financial feasibility component of the analysis incorporates market-supportable assumptions about revenues, costs, land costs, and developer return expectations based on research on recent development trends. The results of financial analysis informed the final recommendations on the housing impact fee.

- **Comparison to other cities**. The Consultant Team researched existing impact fees and BMR policies in other nearby cities to determine the competitiveness of the maximum fee and reduced fee levels. The fee recommendations in this report incorporate the findings from the comparative analysis.

- **Overlap analysis**. The City is undertaking two impact fee nexus studies at the same time: the commercial linkage fee nexus study and the housing impact fee nexus study. To minimize the potential that some jobs could be double-counted by including the same worker households in both studies, the Consultant Team ensured that the recommended fees for the two programs (commercial linkage and housing fees) would – when combined –mitigate less than 100 percent of the total impact.

VII. FEASIBILITY AND POLICY CONSIDERATIONS

There are a number of policy considerations that can be taken into account when jurisdictions consider adopting an affordable housing impact fee on new market-rate development. These may include factors such as the likely impact of the proposed fee levels on local housing development, the competitiveness of the city in attracting development relative to neighboring jurisdictions, the impact of the proposed fee on existing city fee level, and the role of the proposed fee in meeting the city's overall affordable housing objectives. This section provides a discussion of some of the key financial and policy questions for Foster City.

FINANCIAL FEASIBILITY ANALYSIS

Summary of Residential Prototypes

As discussed in more detail in Section III of this report, this nexus analysis is based on two residential prototypes: ownership condominiums and rental apartments. Figure VII-1 summarizes the characteristics of the two development prototypes that were tested for financial feasibility. These prototypes are representative of the types of market rate housing development projects that can reasonably be expected in Foster City. The condominiums are Type V wood frame buildings with underground parking and a density of 39 units per acre. The average net residential area is 1,616 square feet per unit. The apartment prototype building is Type V wood frame construction, with podium parking and a density of 46 units per acre. The average net area per unit is 870 square feet. Most of the apartment units are one and two bedrooms, with a small number of three bedroom units.

Figure VII-1. Residential Prototypes

Building Characteristics	Condominiums	Apartments
Building Type	Type V	Type V
Total Residential Units (a)	200	247
Avg. Size Unit in Square Feet (SF)	1,616	870
Net Square Footage (NSF)	323,200	214,890
Parking Type	Underground	Podium
Efficiency Factor (b)	85%	65%
Gross Square Footage (GSF)	380,235	330,862
Floor Area Ratio (FAR) (c)	1.7	1.4
Land Area (SF)	223,668	236,330
Land Area (Acres)	5.13	5.43
Units per Acre	39	46

Notes:

(a) Unit characteristics are described in more detail in Section III.

(b) Ratio of leasable square footage to gross square footage.

(c) Floor area ratio (FAR) measures density by dividing gross building area by total site area.

Source: Vernazza Wolfe Associates, Inc. and Strategic Economics, 2015.

Fee Levels

In order to provide Foster City with guidance on how proposed fees could impact development decisions, the Consultant Team conducted a financial feasibility analysis that tested the impact of proposed fee options on developer profit. The fees were tested for three fee scenarios, which include the maximum nexus-supported fee and two reduced fee levels.

Figure VII-2 demonstrates the calculated fees per unit for each prototype for all three scenarios. The fees can also be calculated on per square foot basis. The per-square-foot fees at different fee levels are shown in Figure VII-3.

Figure VII-2. Fee Levels per Unit for Prototypes

Prototype	Net Residential Area/ Unit	Scenario 1	Scenario 2	Scenario 3
Multi-Family Condos	1,616	$72,380	$36,190	$28,952
Apartments	870	$69,377	$34,688	$27,751

Sources: Strategic Economics, Inc; Vernazza Wolfe Associates, Inc.

Figure VII-3. Fee Levels per Square Foot for Prototypes

Prototype	Net Residential Area/ Unit	Scenario 1	Scenario 2	Scenario 3
Multi-Family Condos	1,616	$45	$22	$18
Apartments	870	$80	$40	$32

Sources: Strategic Economics, Inc; Vernazza Wolfe Associates, Inc.

Methodology

Financial feasibility of the fee options was tested using a pro forma model that measures the residual land value of a given development project. Many pro forma models are structured to solve for the financial return for the developer or investors (internal rate of return). In contrast, the residual land value method of analysis solves for the value of the land. This method recognizes that the value of land is inextricably linked to what can be built on it, and that development potential is heavily influenced by zoning, lot size/configuration, neighborhood context, and other factors. The pro forma model tallies all development costs (minus land) including direct construction costs, indirect costs (including financing), and developer fees. Revenues from unit sales or rental leases are then summed. The total project costs are then subtracted from the total project revenues. The balance is the residual value, representing the price a developer would pay for the land if pursuing that project. The fee levels were then added as an additional development cost to measure the effect on the residual land value.

Revenues

To estimate income from residential development, the analysis uses the sales prices and monthly rents presented in Section III of this report and summarized in Figure VII-4. These revenue assumptions were based on a review of local and regional market data, including information on the type of development that has been recently constructed or is planned or proposed in Foster City; and current sales prices and rental rates of recently built (or sold) residential development in Foster City and

neighboring cities. For condominium projects, the revenues are calculated by multiplying the unit count by the sales price. Condominium unit prices range from $749,000 for the smallest units to $953,000 for the largest units. For rental projects, the revenues were estimated using an income capitalization approach. This valuation approach first estimates the annual net operating income (NOI) of the apartment prototype, which is the difference between total project income (annual rents) and project expenses, including operating costs[24] and vacancies. The NOI is then divided by the capitalization rate (cap rate) to derive total project value. Figure VII-5 summarizes the calculations and data source used for estimating the value of the apartment prototype.

Figure VII-4. Sales Prices and Rents for Condominium and Apartment Prototypes

Prototype	Unit Type	Number of Units	Net Area (SF)	Unit Sales Price/ Monthly Rent	Price or Rent per SF
Condominiums (For-Sale)					
Type V wood frame	2 BD/2 BA	56	1,400	$749,000	$535
39 units per acre (1.7 FAR)	2+BD/2 BA	48	1,500	$790,000	$527
Subterranean parking	3 BD/ 2 BA	96	1,800	$953,000	$529
Net Residential SF			323,200		
Average Net SF per Unit			1,616		
Apartments (Rental)					
Type V wood frame	1 BD/ 1 BA	122	700	$2,900	$4.14
46 units per acre (1.4 FAR)	2 BD/2 BA	110	1,000	$4,100	$4.10
Podium parking	3 BD/ 2 BA	15	1,300	$4,700	$3.62
Net Residential SF			214,900		
Average Net SF per Unit			870		

Sources: Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure VII-5. Apartment Revenue Calculations

Apartment Revenues	Calculation	Total
Gross Annual Rental Income (a)	Gross annual rents	$10,503,600
Operating Expenses (b)	30 percent of income	($3,151,080)
Vacancy (c)	5 percent of income	($525,180)
Annual Net Operating Income (c)	Income less expenses and vacancy	$6,827,340
Capitalization Rate (d)	5 percent	5.00%
Capitalized Value	Project value	$136,546,800

Notes:

(a) Average monthly rents multiplied by 12 months multiplied by unit count for each unit type.

(b) Institute of Real Estate Management, San Francisco MSA Apartment Properties, 2011.

(c) Assumes a vacancy rate of 5 percent in a stabilized rental market.

(d) According to DTZ's San Francisco Real Estate Forecast 2015, the cap rate for apartments in San Mateo County is approximately 5 percent.

Sources: Strategic Economics, 2015.

[24] Operating costs were calculated based on the Institute of Real Estate Management Survey of Apartment Buildings in the San Francisco Metropolitan Statistical Area (MSA).

Development Costs

Cost estimates for the residential prototypes include direct construction costs (site work, building costs, and parking), indirect costs, financing costs, and developer overhead and profit. Development cost estimates for the pro forma analysis are distinct from the cost estimates provided in the countywide affordability gap analysis. Direct building construction cost estimates are based on RS Means and project pro formas for recent projects in San Mateo County.[25] Soft costs and developer overhead/profit were calculated based on a review of similar project pro formas in the Bay Area. City fee calculations were provided by City staff. Each of the cost factors used in the analysis is summarized in Figure VII-6.

Figure VII-6. Development Cost Factors

Development Costs	Metric	
Direct Costs (a)		
Condominiums	$225	Per NSF
Apartments	$210	Per NSF
Indirect Costs (b)		
A&E & Consulting	6.0%	of direct costs
Permits & Fees (Excl. Housing) (c)		estimated by City
Taxes, Insurance, Legal & Accounting	3.0%	of direct costs
Other (d)	3.0%	of direct costs
Contingency	5.0%	of indirect costs
Total Indirect Costs		
Financing Costs (b)		
Loan to Cost Ratio (LTC)	80%	of total costs
Loan Interest Rate	6%	annual rate
Compounding Period	12	months
Construction/Absorption Period (e)	24	months
Utilization Rate	55%	of loan
Loan Fees	2%	of loan
Developer Overhead & Profit	12%	of total costs (excl. land)

Notes:

(a) Direct costs include site work, building construction, and parking costs of $30,000 per space for underground parking and $25,000 per space for podium parking. Costs estimates are based on review of Bay Area pro formas for similar projects and data from RS Means.

(b) Based on review of similar project pro formas in the Bay Area and interviews with developers.

(c) Permits & fees provided by City staff.

(d) Other soft costs include marketing, personal property, environmental studies, etc.

(e) A 24-month absorption period is assumed for both prototypes.

Source: Strategic Economics, 2015.

[25] The development cost estimates used in the pro forma analysis are slightly different from those used in the affordability gap analysis because they include more recent real estate data, and are more tailored for Foster City and Central San Mateo County, rather than an overall estimate for the entire county. Furthermore, the market-rate units are generally larger and costlier to build than the “modest” units described in the affordability gap analysis.

Land Value

In order to understand what the different fee levels indicate regarding financial feasibility, the residual land values for each fee scenario can be compared with the market value of residential land in Foster City. If the residual value is higher than the market value, the project is feasible. If the residual value is lower than the market price, then the project is infeasible.

To determine the land value of sites zoned for multi-family residential uses, the Consultant Team analyzed recent sales transactions in the Central San Mateo County submarket (where Foster City is located) and reviewed third-party property appraisals.[26] Figure VII-7 illustrates the results of the land value analysis for Central San Mateo County. The average land value per square foot is $201, while the weighted average (weighted by the size of the properties) is $180. The majority of the sales shown in Figure VII-7 were transactions that occurred 2012 or earlier; today's land values are likely to be higher. Therefore, for this analysis, the estimated land value is approximately $175 to $225 per square foot. The value is presented as a range because the land value of properties is likely to vary depending on location, size, and other conditions.

[26] The land value assumptions utilized in the pro forma analysis are different from the affordability gap analysis in two ways: 1) they include more recent transactional data than the affordability gap analysis, which was completed in July 2014; and 2) they are tailored to Foster City and Central San Mateo County, unlike the affordability gap estimate, which is a countywide estimate.

Figure VII-7. Recent Land Sales in Central San Mateo County

Site Address	City	Sale Date	Price	Acres	Sq. Ft	Value/ SF	Zoning (Du/acre)
1950 Elkhorn Court	San Mateo	Aug-12	$16,745,000	2.0	88,862	$188	97
E. Side of Tilton Ave/N. El Camino Real	San Mateo	Nov-12	$4,505,000	0.8	33,572	$134	36-38
1840 Ogden Dr.	Burlingame	Sep-09	$7,180,000	0.9	38,768	$185	51
2790 S. El Camino Real	San Mateo	2014	$6,100,000	0.3	14,331	$426	C3-1/R-4
10 Barneson	San Mateo	Jan-14	$2,530,000	0.4	19,341	$131	18
Shea Homes of Northern CA	San Mateo	Dec-12	13,480,000	1.82	79,279	$170	51
TRI Pointe Homes, LLC	San Mateo	Dec-12	22,510,000	3.04	132,422	$170	21
Average Value per SF						$201	
Weighted Average Value per SF						$180	

Source: Property appraisals; DataQuick, 2015; Loopnet, 2015; Strategic Economics, 2015

Financial Feasibility Results

Figure VII-8 provides the pro forma for the condominium and apartment prototypes. Below is a discussion of the findings.

Condominiums

The feasibility analysis indicates that at current market prices, without the addition of new impact fees, the condominium prototype would have revenues of $171.4 million, with a total development cost of $118.9 million. The difference between the revenues and costs is the residual land value, which is estimated $234 per square foot. This prototype, with no additional impact fees, yields a residual land value that exceeds the threshold for feasibility in Central San Mateo County, which is between $175 and $225 per square foot.

With the addition of the potential housing impact fees at different levels, the financial feasibility results are as follows:

- The maximum permissible impact fee of $45 per square foot (Scenario 1) raises development costs from $118.9 million to $133.4 million. This cost increase results in a residual land value of $169 per square foot, which is below the threshold for financial feasibility in Foster City, which was determined to be between $175 and $225 per square foot.

- Scenario 2, a reduced impact fee set at $22 per square foot increases development costs to $124 million. The residual land value under this fee scenario is $203 per square foot, falling within the range required for the project to be feasible.

- Scenario 3, a fee of $18 per square foot, raises total development costs to $126 million, resulting in a residual land value of $208 per square foot. This land value, exceeding $175 per square foot, would also meet the requirement to be financially feasible.

Apartments

For apartments, the financial analysis shows that under current market conditions, without a nexus fee on affordable housing, a prototypical apartment development costs approximately $82.8 million, with a total project value of $136.5 million. The residual land value on this prototype, excluding a nexus fee, is estimated at $228 per square feet, exceeding the threshold for financial feasibility, defined as between $175 to $225 per square foot. The following describes the feasibility of potential housing impact fees at different levels for apartments:

- The maximum nexus fee of $80 per square foot (Scenario 1) brings total development costs up to nearly $100 million, an increase of $13 million. This cost increase results in a residual land value of $155 per square foot, which is below the market value of land in Foster City, making the project infeasible to develop under today's economic conditions.

- Scenario 2, a nexus fee of $40 per square foot, increases development costs to $91.4 million. The residual land value under this fee scenario is $191 per square foot, which meets the minimum threshold to be feasible.

- Scenario 3, a fee level of $32 per square foot, increases development costs to $89.7 million, creating a residual land value of $198 per square foot. This fee level would also be financially feasible because it exceeds the minimum threshold for feasibility of $175 per square foot.

Figure VII-8. Pro Forma Model Results for Prototypes

	Condominiums		Apartments	
Development Costs (Excl. Land & Nexus Fee)	**per Unit**	**Total**	**per Unit**	**Total**
Direct Costs (a)				
Building & On-Site Improvements	$363,600	$72,720,000	$182,700.00	$45,126,900
Building & Onsite per NSF		$225		$210
Parking	$45,000	$9,000,000	$37,500	$9,262,500
Total Direct Costs	$408,600	$81,720,000	$220,200	$54,389,400
Total Direct Costs per NSF		$253		$253
Indirect Costs (a)				
A&E & Consulting	$24,516	$4,903,200	$13,212	$3,263,364
Permits & Fees (Excl. Nexus fee) (b)	$34,823	$6,964,572	$30,481	$7,528,692
Taxes, Insurance, Legal & Accounting	$12,258	$2,451,600	$6,606	$1,631,682
Other Indirect Costs	$12,258	$2,451,600	$6,606	$1,631,682
Contingency	$4,193	$838,549	$2,845	$702,771
Total Indirect Costs	$88,048	$17,609,521	$59,750	$14,758,190
Financing Costs (a)	$34,169	$6,833,871	$19,261	$4,757,354
Developer Overhead & Profit (a)	$63,698	$12,739,607	$35,905	$8,868,593
Total Development Costs	$594,515	$118,902,999	$335,116	$82,773,538
Total Development Costs (per NSF)		$368		$385
Income				
Gross Income/Sales Proceeds	$856,760	$171,352,000	$42,525	$10,503,600
Less: Operating/Sales Expenses & Vacancy			$14,884	$3,676,260
Net (Operating or Sales) Income	$856,760	$171,352,000	$27,641	$6,827,340
Capitalized Value/Sales Value (c)	$856,760	$171,352,000	$552,821	$136,546,800
Total Development Costs (TDC) Except Land With Nexus Fee Scenarios	**Nexus Fee per NSF**	**TDC incl. Nexus Fee**	**Nexus Fee per NSF**	**TDC incl. Nexus Fee**
Fee Scenario 1 (Maximum Fee)	$45	$133,446,999	$80	$99,964,738
Fee Scenario 2	$22	$126,013,399	$40	$91,369,138
Fee Scenario 3	$18	$124,720,599	$32	$89,650,018
No Fee	$0	$118,902,999	$0	$82,773,538
Nexus Fee as Percent of TDC	**Nexus Fee per NSF**	**Fee as % of TDC**	**Nexus Fee per NSF**	**Fee as % of TDC**
Fee Scenario 1 (Maximum Fee)	$45	11.5%	$80	17.2%
Fee Scenario 2	$22	5.7%	$40	9.4%
Fee Scenario 3	$18	4.9%	$32	7.7%
No Fee	$0	0.0%	$0	0.0%
Residual Land Value per SF by Fee Scenario (d)	**Nexus Fee per NSF**	**Residual Land Value per SF**	**Nexus Fee per NSF**	**Residual Land Value per SF**
Fee Scenario 1 (Maximum Fee)	$45	$169	$80	$155
Fee Scenario 2	$22	$203	$40	$191
Fee Scenario 3	$18	$208	$32	$198
No Fee	$0	$234	$0	$228

Notes:
(a) See Figure VII-6.
(b) Estimated by City staff.
(c) See Figure VII-5.
(d) Feasibility threshold is $175 to $225 per SF.
Acronyms:
SF: square feet
NSF: net square foot
TDC: total development costs
Source: Strategic Economics, 2015.

ADDITIONAL POLICY CONSIDERATIONS

While the nexus study provides the necessary economic analysis for the housing impact fees, it is up to policymakers to decide what percentage of the maximum fee to be charged on new development. Financial feasibility is one important factor to examine. In addition, there are a number of other policy issues to consider, such as:

- How much will residential development fees increase?
- What are the residential impact fee levels in neighboring jurisdictions?
- How does a housing impact fee fit into Foster City's overall housing strategy?
- How to decide other administrative issues?

A discussion of each of these topics is presented below.

Comparison to Existing Fees on Residential Development

Figure VII-9 presents information on current city fees charged on the two residential prototypes included in this nexus analysis. It also demonstrates what happens to the fee levels under three residential impact fee scenarios.

Currently, Foster City's fees for the two residential prototypes are estimated at $34,823 for a condominium unit and $30,481 for an apartment unit.[27] Once the nexus-based residential impact fees at various levels are added to existing fees, the total fees increase as presented in Figure VII-9. The maximum fee (Scenario 1) increases total fees by 300 percent, while Scenario 2 approximately doubles total city fees.

Figure VII-10 is intended as a resource for the policy discussion that Foster City will have when considering what fee level to select. A fee that is set too high could have a dampening effect on private development. On the other hand, a low fee does not fully mitigate all the affordable housing impacts from new residential development.

[27] The fee estimates presented above represent the best approximations available from Foster City.

Figure VII-9. Foster City Total Residential Fees Under Selected Fee Scenarios

	Condominiums	Apartments
Number of Units in Prototype	200	247
Total Existing City Fees and Permits for Prototype	$6,964,572	$7,528,692
Existing Fees and Permits per Unit	$34,823	$30,481
Scenario 1 (Maximum Fee)		
Nexus Fee Per Unit	$72,380	$69,377
Total Nexus Fees	$14,544,000	$17,191,200
Combined Existing and Nexus Fees for Prototype	$21,508,572	$24,719,892
Combined Fees Per Unit	$107,543	$100,081
Scenario 2		
Nexus Fee Per Unit	$36,190	$34,688
Total Nexus Fees	$7,272,000	$8,595,600
Combined Existing and Nexus Fees for Prototype	$14,236,572	$16,124,292
Combined Fees Per Unit	$71,183	$65,281
Scenario 3		
Nexus Fee Per Unit	$28,952	$27,751
Total Nexus Fees	$5,817,600	$6,876,480
Combined Existing and Nexus Fees for Prototype	$12,782,172	$14,405,172
Combined Fees Per Unit	$63,911	$58,321

Sources: City of Foster City, 2015; Strategic Economics, Inc; Vernazza Wolfe Associates, Inc., 2015.

Comparison to Neighboring Jurisdictions

Figure VII-10 provides comparative information of the potential fees under different scenarios in Foster City with other jurisdictions in San Mateo and Santa Clara Counties that have adopted housing impact fees on rental units and for-sale housing units.

If the maximum impact fee calculated for Foster City were adopted, it would exceed the fees charged in all of the neighboring jurisdictions listed in Figure VII-10. If Foster City adopts the fee level shown under Scenario 2 for both condominium and apartment units, it would place at the top end of the range for apartment fees; however, the condominium unit fee would be similar to most of the jurisdictions with an impact fee currently in place. [28]

[28] For example, in Mountain View, a condominium would need to sell for almost $2.7 million in order for the Mountain View fee (at 3% of the sale price) to exceed the top end of the proposed Foster City housing impact fee. In Sunnyvale, the comparable figure would be slightly more than $1 million.

Figure VII-10. Comparison with Fees in Neighboring Jurisdictions

	Condominiums	Apartments	Date Fee Was Adopted
Foster City Fee Scenarios			
Scenario 1 (Maximum Fee)			N/A
Per SF	$45	$80	
Per Unit	$72,380	$69,377	
Scenario 2			N/A
Per SF	$22	$40	
Per Unit	$36,190	$34,688	
Scenario 3			N/A
Per SF	$18	$32	
Per Unit	$28,952	$27,751	
Impact Fees In Neighboring Jurisdictions			
Cupertino	$20/SF	$25/SF	2015
Daly City	$22/SF	$25/SF	2014
East Palo Alto	$22-$44/SF (c)	$22/SF	2014
Mountain View	N/A	$15/SF	2015
San Carlos (d)	$20.59-$42.20/SF	$23.54-$43.54/SF	2010
San Jose	N/A	$17/SF (f)	2014
Sunnyvale	N/A	$17/SF (g)	2015
Inclusionary Policies and In-Lieu Fees in Neighboring Jurisdictions			
Mountain View	3% of Sales Price	N/A	2015
San Jose (h)	Inclusionary @15% or $17/SF in-lieu fee	N/A	2014
Sunnyvale	7% of Sales Price	N/A	2015

Notes:
(a) This fee applies to small lot single family and townhomes.
(b) This fee applies to townhomes.
(c) Fee ranges from $22 per square foot for for-sale housing without structured parking to $44 per square foot for housing with structured parking.
(d) Fees shown as ranges. Actual fees charged depend on project size.
(e) Fee charged depends on unit size (number of bedrooms).
(f) Fee goes into effect in 2016. Developments approved by July 2016 are exempt with a longer exemption for downtown development.
(g) Fees for projects that are between 4 and 7 units pay 50 percent of this fee.
(h) Inclusionary policy and in-lieu fee apply to for-sale developments of more than 20 units.
Sources: The Non-Profit Housing Association of Northern California; City of San Carlos Municipal Code; Vernazza Wolfe Associates, Inc; Strategic Economics, 2015.

The potential fee scenarios can also be compared with existing residential impact fees in other Bay Area cities outside of San Mateo County and Santa Clara County for regional context. This list is not an exhaustive inventory of all Bay Area cities with housing impact fees, but it provides information about many cities that have fees on housing. As shown in Figure VII-11, impact fees in other Bay Area cities vary significantly from city to city. None of the fees presented in Figure VII-11 are as high as the maximum justified fee in Foster City. However, some of the cities, such as Berkeley and Fremont, have impact fees that are similar to Scenario 2 in Foster City.

Figure VII-11. Existing Housing Impact Fees in Bay Area Cities

City	Project Type	Amount
Fremont	For-Sale and Rental Development	$19.50 per habitable SF $22.50 per habitable SF for single family homes on lots 6,000 SF or greater.
Santa Rosa	For-Sale and Rental Development	2.5% of sale price of for-sale units. Based on SF for rentals
Livermore	For-Sale and Rental Development	Based on type of dwelling produced
Pleasanton	For-Sale and Rental Development	Single Family (over 1,500 SF): $10,880 per unit Single Family (1,500 SF or less) and Multi-family (Apt. or Condo): $2,696 per unit Adjusted annually based on CPI
Napa	For Sale and Rental Development	Single Family: $ 2.20 per SF Condo: $2.20 per SF Rental: $3.75 per sq.
Emeryville	Rental Residential Projects	$20,000 per dwelling unit
Berkeley	Rental Development	$28,000 per unit

Notes:

(a) Cupertino has recently completed a nexus study for rental and ownership units. The recommended fee levels are $15-$25 per SF for ownership units and $20-30 per SF for rental units.

(b) City of Berkeley Resolution No. 66, 015 authorizes $8,000 discount for eligible projects

Sources: The Non-Profit Housing Association of Northern California, Strategic Economics, and Vernazza Wolfe Associates, Inc, 2015.

Role of Fees in Overall Housing Strategy

Foster City's affordable housing strategy primarily consists of two programs: providing financial assistance for affordable housing developments and preservation and operating an inclusionary housing program that requires developers to provide 20 percent of all units at affordable rents or sales prices.

- Housing impact fee revenues would augment existing affordable housing funds. It should be noted that revenues from this impact fee would need to be spent on housing that benefits worker households (excluding non-working households like retired seniors, unemployed homeless, and student populations), since the funds stem from affordable housing impacts related to new employment.

- Foster City currently has an inclusionary policy in the General Plan that requires that new developments include 20 percent affordable housing units. In-lieu fees have not been adopted in Foster City. The affordability levels for the inclusionary units are determined on a case by case basis, and developers have historically built the units within their projects. If Foster City chooses to adopt a housing impact fee, the equivalent percentage of inclusionary units would be approximately 30 percent for both prototypes. This equivalent inclusionary rate is based on the number of affordable units that are needed to accommodate an increase in demand for affordable housing divided by the total number of units in the residential prototype(s). One of the viable policy alternatives for Foster City to consider is to continue to operate an inclusionary program for ownership units, since its current percentage of 20 percent is below the nexus calculated inclusionary rate for condominiums of approximately 30 percent.

The city is undertaking a commercial linkage nexus study simultaneous to the residential impact fee nexus study, and may adopt a commercial linkage fee in a parallel process to the housing impact fee analyzed in this report. One issue that may arise if a City considers the adoption of both fees is whether there is any overlap between the two impact fees, resulting in potential "double-counting" of impacts.

- The commercial linkage fee study examined jobs located in new commercial buildings including office/ R&D/ medical office buildings, retail/ restaurants/ services, and hotels. The nexus analysis then calculated the average wages of the workers associated with each commercial building to derive the annual income of the new worker households. The analysis determines the area median income (AMI) level of the new worker households to identify the number of worker households that would require affordable housing.

- The residential impact fee nexus analysis discussed in this report examined households buying or renting new market rate units in the jurisdiction. The household expenditures by these new residents have an economic impact in the county, which can be linked to new jobs. The nexus analysis quantified the jobs linked to new household spending, and then calculated the wages of new workers and the household income of new worker households. Each worker household was then categorized by area median income (AMI) to determine the number of households that require affordable housing.

There may be a share of jobs counted in the commercial linkage fee analysis that are also included in the residential nexus analysis, particularly those in the service sector. Other types of jobs counted in the residential nexus analysis are unique to that analysis, and are not included in the commercial linkage fee analysis (for example, public sector employees). The commercial linkage fee analysis is limited to private sector office/ R&D/ medical office buildings, hotels, and retail/ restaurants/ service space.

There is potential that some jobs could be counted in both analysis, and that the two programs may overlap in mitigating the affordable housing demand from the same worker households. Each of the proposed fees is required to mitigate no more than 100 percent of the demand for affordable units by new worker households. However, the nexus fee levels recommended in both studies fall below the justified nexus amounts.

- First, the recommended, financially feasible commercial linkage fees represent five percent to ten percent of the justified nexus amount for all prototypes. Therefore, the commercial linkage fee mitigates approximately five percent to ten percent of the demand for affordable units generated by the new non-residential space.

- The housing impact fee levels that are financially feasible are equal to 40 percent of the maximum fee level supported by the residential nexus analysis. Therefore, the combined programs (commercial and housing fees) would mitigate between 45 percent and 50 percent of the maximum justified fee levels, and would mitigate less than 100 percent of the impact even if there were overlap in the jobs counted in the two nexus analyses.

Administrative Issues

When adopting a Housing Impact Fee, there are several administrative issues to consider. First, does the City want to encourage smaller units? By charging lower fees for smaller units, it is possible that it could encourage development of smaller units.

Secondly, similar to any impact fee, it will be necessary to adjust the housing impact fees on an annual basis. Adjustments are also needed due to possible changes in the affordability gap. However, the connection between new residential construction and growth in employment derived from the IMPLAN3 Model is unlikely to change in the short run.

It is advisable that the City adjusts its housing impact fee annually by using an annual adjustment mechanism. An adjustment mechanism updates the fees to compensate for inflation in development costs. To simplify annual adjustments, it is recommended that the City select a cost index that is routinely published. While there is no index that tracks changes in Foster City's development costs, including land, specifically, there are a few options to consider.

- The first option is the Consumer Price Index (CPI) Shelter component. The shelter component of the CPI covers costs for rent of primary residence, lodging away from home, owner's equivalent rent of primary residence, and household insurance. Of the total shelter index, costs associated with the owner's equivalent rent of primary residence constitute 70 percent of total costs entered into the index.

- A second option to adjust the fee for annual inflation is the construction cost index published in the Engineering News Record (ENR). This index is routinely used to update other types of impact fees. Cost index information for the San Francisco region, the smallest geographical area available for this purpose, is available on an annual basis. The ENR cost index measures inflation in construction costs, but it does not incorporate changes in land costs or public fees charged on new development.

Because these indices are readily available, reliable, and relatively simple to use, it is recommended that Foster City use these indices for annual adjustments. However, because both understate the magnitude of inflation, it is recommended that the City base its annual adjustment mechanism on the higher of the two indices (CPI or ENR), using a five-year moving average as the inflation factor.

In addition to revising the fee annually for inflation, the City is encouraged to update the housing impact study every five years, or at the very least, update the housing affordability gap used in the basic model. The purpose of these updates is to ensure that the fee is still based on a cost-revenue structure that remains applicable in the Foster City housing market. In this way, the fee will more accurately reflect any potential structural changes in the relationships between affordable prices and rents, market-rate prices and rents, and development costs.

VIII. GLOSSARY OF TERMS AND ACRONYMS

GLOSSARY OF TERMS

Affordable Housing: Under state and federal statutes, housing is defined as affordable if housing costs do not exceed 30 to 35 percent of gross household income.

Annual Adjustment Mechanism: Due to inflation in housing construction costs, it is frequently necessary to adjust impact fees. An index, such as the Consumer Price Index (CPI) or a published construction cost index (for example, from the Engineering News Record) is used to revise housing fees to reflect inflation in housing construction costs.

Assisted Housing: Housing that has received public subsidies (such as low interest loans, density bonuses, direct financial assistance, etc.) from federal, state, or local housing programs in exchange for restrictions requiring a certain number of housing units to be affordable to very low-, low-, and moderate-income households.

Boomerang Funds: Monies returned to the City by the State of California, after dissolution of redevelopment agencies in the State.

Consumer price index (CPI): Index that measures changes in the price level of a market basket of consumer goods and services purchased by households.

Employment Densities: The amount of square feet per employee is calculated for each property use that is subject to a commercial development housing linkage fee. Employment densities are used to estimate the number of employees that will work in a new commercial development.

Household: The US Census Bureau defines a household as all persons living in a housing unit whether or not they are related. A single person living in an apartment as well as a family living in a house is considered a household. Households do not include individuals living in dormitories, prisons, convalescent homes, or other group quarters.

Household Income: The total income of all the persons living in a household. Household income is commonly grouped into income categories based upon household size and income, relative to the regional median family income.

Housing Affordability Gap: The affordability gap is defined as the difference between what a household can afford to spend on housing and the market rate cost of housing. Affordable rents and sales prices are defined as a percentage of gross household income, generally between 30 percent and 35 percent of income.

For renters, rental costs are assumed to include the contract rent as well as the cost of utilities, excluding cable and telephone service. The difference between these gross rents and affordable rents is the housing affordability gap for renters. This calculation assumes that 30% of income is paid for gross rent.

For owners, costs include mortgage payments, mortgage insurance, property taxes, property insurance, and homeowner association dues. [29] The difference between these housing expenses and affordable ownership costs is the housing affordability gap for owners. This calculation assumes that 35% of income is paid for housing costs.

Housing Subsidy: Housing subsidies refer to government assistance aimed at reducing housing sales prices or rents to more affordable levels.

Housing Unit: A housing unit can be a room or group of rooms used by one or more individuals living separately from others in the structure, with direct access to the outside or to a public hall and containing separate toilet and kitchen facilities.

IMPLAN3: A software model that is used to provide a quantitative assessment of the interdependencies between different branches of a regional (or national) economy. The latest model, IMPLAN3, was used in the nexus studies. The major input is household income, and the major output is direct and induced employment reported by industries

Inclusionary Zoning: Inclusionary zoning, also known as inclusionary housing, refers to a planning ordinance that requires that a given percentage of new construction be affordable to households with very low, low, moderate, or workforce incomes.

In-Lieu Fee: A literal definition for an in-lieu fee for inclusionary units would be a fee adopted "in place of" providing affordable units. For the purposes of operating an inclusionary housing program, a public jurisdiction may adopt a fee option for developers that prefer paying fees over providing housing units on- or off-site. A fee study is frequently undertaken to establish the maximum fee that can be charged as an in-lieu fee. This fee study must show that there is a reasonable relationship between the fee and the cost of providing affordable housing.

Market-Rate Housing: Housing which is available on the open market without any public subsidy. The price for housing is determined by the market forces of supply and demand and varies by location.

Nexus Study: In order to adopt a residential housing impact fee or a commercial linkage fee, a nexus study is required. A nexus requires local agencies proposing a fee on a development project to identify the purpose of the fee, the use of the fee, and to determine that there is "a reasonable

[29] Mortgage terms for first-time homebuyers typically allow down payment of five percent; these terms require private mortgage insurance.

relationship between the fee's use and the type of development project on which the fee is imposed." A nexus study establishes and quantifies a causal link or "nexus" between new residential and commercial development and the need for additional housing affordable to new employees.

Linkage Fee: A fee or charge imposed on commercial developers to pay for a development's impact on the need for affordable housing. The fee is based on projected household incomes of new employees that will work in newly created space. The fee varies according to the type of property use.

Prototypes: Prototypes are used for residential and commercial developments in order to define housing impact fees. The prototypes generally represent new development projects built in a community and are used to estimate affordable housing impacts associated with new market rate commercial and residential developments. While the prototypes should be "typical" of what is built, for ease of mathematical computation, they are often expressed as larger developments in order to avoid awkward fractions.

Residential or Housing Impact Fee: A fee imposed on residential development to pay for a development's impact on the need for affordable housing. The fee is based on projected incomes of new employees associated with the expansion of market rate developments. Two steps are needed to define the fees. The first step is the completion of a nexus study, and the second step entails selection of the actual fee amount, which can be below the amount justified by the fee study, but not above that amount.

RS Means: Data source of information for construction cost data.

DEFINITION OF ACRONYMS

AMI: Area Median Income

CBIA: California Building Industry Association

EDD: State of California Employment Development Department

FAR: Floor-area-ratio

FF&E: Furniture, Fixtures, and Equipment

GBA: Gross Building Area

HCD: Department of Housing and Community Development (State of California)

NAICS: North American Industry Classification System

NSF: Net Square Feet

QCEW: Quarterly Census of Employment and Wages

R&D: Research and development

SF: Square Feet

TDC: Total Development Costs