Attachment 1

KEYSER MARSTON ASSOCIATES

RESIDENTIAL NEXUS ANALYSIS
San Jose, California

Prepared for
City of San Jose

Prepared by:
Keyser Marston Associates, Inc.

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EXECUTIVE SUMMARY

Keyser Marston Associates (KMA) prepared this residential nexus analysis for the City of San Jose pursuant to a contractual agreement. The report addresses new market rate rental housing development in San Jose and will form one of the bases for recommendations for the adoption of a housing impact fee for new market rate rental projects consistent with the applicable requirements of the Mitigation Fee Act. This Executive Summary contains a concise overview of the residential nexus analysis; full documentation of the analysis is contained in the body of the Report and its Appendices.

A residential nexus analysis demonstrates and quantifies the impact of new market rate housing development on the demand for affordable housing. The underlying nexus concept is that the newly constructed market rate units represent new households in San Jose. These households represent new income in San Jose that will consume goods and services, either through purchases of goods and services or 'consumption' of government services. New consumption translates to jobs; a portion of the jobs are at lower compensation levels; low compensation jobs relate to lower income households that cannot afford market rate units in San Jose and therefore need affordable housing.

1. Impact Methodology and Models Used

The analysis is performed using two models. The IMPLAN model is an industry accepted, commercially available model developed over 30 years ago to quantify the impacts of changes in a local economy, including the employment impacts of changes in personal income. The input into the IMPLAN model is net new household income in San Jose available for expenditures; the IMPLAN model then estimates a distribution of expenditures, and ultimately produces a quantification of jobs generated by industry. The KMA Jobs Housing Nexus model, which was initially developed over 25 years ago to analyze the income structure of job growth, is used to determine the household income of new employee households and identify how many are in four housing affordability tiers including Extremely Low-, Very Low-, Low-, and Moderate-Income.

2. Market Survey and Residential Prototypes

The first step of the nexus analysis is to identify rental prototypes that are representative of what is generally being built by the private marketplace in San Jose. The City of San Jose provided KMA with programmatic assumptions for two rental prototypes. KMA then undertook a market survey of projects to estimate rent levels for the prototype units. The prototypes are summarized in the following table. Rents levels are as of the time of the original survey in summer 2013.

Rental Prototypes		
	Apartment	*High-Rise Apartment*
Avg. Unit Size	990 SF	900 SF
Avg. No. of Bedrooms	1.64 BR	1.35 BR
Avg. Rent	$2,670/mo.	$2,340/mo.

Rent levels for the high-rise apartment prototype are based on 360 Residences in Downtown San Jose; however, higher rents would likely be needed to support the cost of new high-rise construction.

From the rent levels, household income is determined based on the assumption that renters spend 30% of their income on rent. These relationships are grounded in state housing policy and reflective of the current averages for San Jose and Santa Clara County. It is noted that although the City's 2007 – 2014 Housing Element shows that many lower income renter households spend 30% or more of their income on rent, only about 8% of renter households earning $75,000 or above (i.e. the households occupying the prototypical new market rate rental units addressed in this nexus analysis) spend 30% or more of their income on rent[1].

Gross household income is adjusted to a net amount available for expenditures after deducting the portion of income dedicated to income taxes, contributions to Social Security and Medicare, savings, and repayment of household debt. The adjusted household income available for expenditures becomes the input into the IMPLAN model. As a result, household income associated with each of the prototypes is as follows:

Household Income		
	Apartment	*High-Rise Apartment*
Gross Household Income	$107,000	$94,000
Percent Income Available for Expenditures	65%	66%
Household Income Available for Expenditures [Input to IMPLAN model]	$69,600	$62,000

The nexus analysis is conducted on 100-unit project modules (i.e., 100 new households) for ease of presentation and to avoid awkward fractions.

3. IMPLAN Model Results

The IMPLAN model was applied to link household income to job growth occurring in Santa Clara County. The IMPLAN model distributes spending among various types of goods and services (industry sectors) based on data from the Consumer Expenditure Survey and the Bureau of Economic Analysis, to estimate employment generated. Job creation, driven by increased demand for products and services, was projected for each of the industries that will serve the new households. The employment generated by this new household spending is summarized below.

Jobs Generated Per 100 Units		
	Apartment	*High-Rise Apartment*
Annual Household Expenditures, 100 Units	$6,960,000	$6,200,000
Total Jobs Generated, 100 Units	40.2	35.8

[1] Based on 2010 to 2012 American Community Survey Data for the City of San Jose.

The IMPLAN model quantifies jobs generated at establishments that serve new residents directly (i.e. supermarkets, banks or schools), jobs generated by increased demand at firms which service or supply these establishments (wholesalers, janitorial contractors, accounting firms, or any jobs down the service/supply chain from direct jobs), and jobs generated when the new employees spend their wages in the local economy and generate additional jobs. Retail, restaurants, and health care represent the largest share of jobs generated by household expenditures. The jobs counted in the analysis represent the net new jobs created as a result of the additional demand for goods and services by net new households added with construction of new market-rate rental housing in the City of San Jose.

4. Compensation Levels of Jobs and Household Income

The output of the IMPLAN model – the numbers of jobs by industry – is then entered into the Keyser Marston Associates jobs housing nexus analysis model to quantify the compensation levels of new jobs and the income of the new worker households. The KMA model sorts the jobs by industry into jobs by occupation, based on national data, and then attaches local wage distribution data to the occupations, using recent Santa Clara County data from the California Employment Development Department (EDD). The KMA model also converts the number of employees to the number of employee households, recognizing that there is, on average, more than one worker per household, and thus the number of housing units in demand for new workers is reduced.

The output of the model is the number of new worker households by income level (expressed in relation to the Area Median Income, or AMI) attributable to the new rental units and new households in San Jose. Four categories of addressed: Extremely Low (under 30% of AMI), Very Low (30% to 50% of AMI), Low (50% to 80% of AMI) and Moderate (80% to 120% of AMI). Following are the numbers of worker households by income level associated with the San Jose apartment prototype units.

New Worker Households by Income Level per 100 Market Rate Units		
	Apartment	*High-Rise Apartment*
Extr. Low (Under 30% AMI)	2.5	2.3
Very Low (30% - 50% AMI)	5.1	4.5
Low (50%-80% AMI)	5.3	4.7
Moderate (80%-120% AMI)	3.3	2.9
Total, Less than 120% AMI	**16.3**	**14.5**
Greater than 120% AMI	2.7	2.4
Total, New Households	**19.0**	**16.9**

The number of worker households at the various income levels in the above table represents a subset of all households and is reflective of the incomes of retail, restaurant, healthcare and other workers in industries that serve new residents. The distribution will not necessarily match the overall distribution of incomes for all households in the City or County.

5. Impact Fee Levels Supported by the Nexus Analysis

The last step in the analysis puts a dollar amount on the cost of mitigating the affordable housing impacts. The conclusions of the nexus analysis, expressed as the number of worker households by income affordability category, are linked to the cost of delivering housing to the households in need. Each income or affordability tier is associated with a subsidy needed to produce and deliver a unit at the specified affordability level; this subsidy is referred to as the 'affordability gap.'

Affordability gaps are calculated for each of the four affordable tiers. The analysis assumes households earning less than 80% of Area Median Income will be assisted in rental units, while households earning between 80% and 120% of Area Median Income will be assisted in ownership units. For rental units, the affordability gap is calculated after funding available through 4% tax credits and tax exempt bonds.

The resulting affordability gaps are as follows:

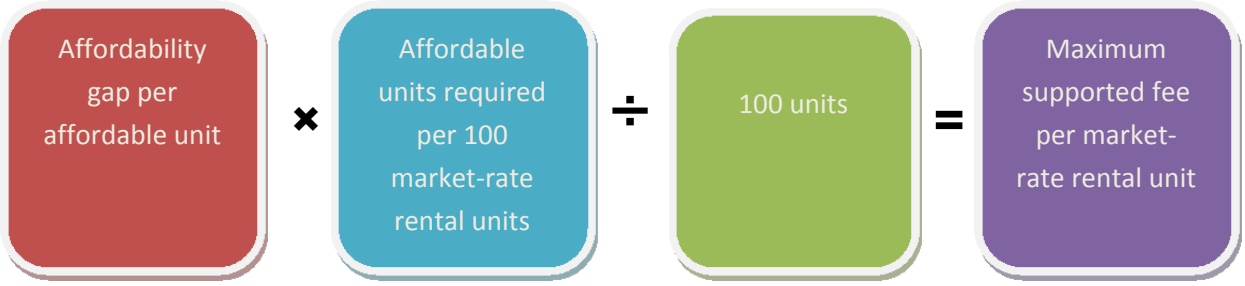
- $256,000 for households in the under 30% AMI category;
- $186,000 for households in the 30% to 50% AMI category;
- $151,000 for households in the 50% to 80% AMI category; and,
- $121,000 for households in the 80% to 120% AMI category.

When the affordability gap conclusions for each income tier are linked to the number of affordable units required as a result of market rate development (as indicated in the inset table on the next page) and divided by 100 units, the result is the total nexus cost per new market rate residential unit. The results per unit are:

Nexus Per Market Rate Unit			
Income Category	*Affordability Gap*	*Apartment*	*High-Rise Apartment*
Extr. Low Income	$256,000	$6,500	$5,800
Very Low Income	$186,000	$9,500	$8,500
Low Income	$151,000	$8,000	$7,100
Moderate	$121,000	$4,000	$3,600
Total Nexus Costs		**$28,000**	**$25,000**

The chart on the following page illustrates how the above maximum supported fees per unit are calculated:

Calculation of Maximum Supported Fee Per Market-Rate Rental Unit



The total nexus costs, or mitigation costs, indicated above, may also be expressed on a per square foot level. The square foot area of the prototype unit used throughout the analysis becomes the basis for the calculation. The results per square foot are as follows:

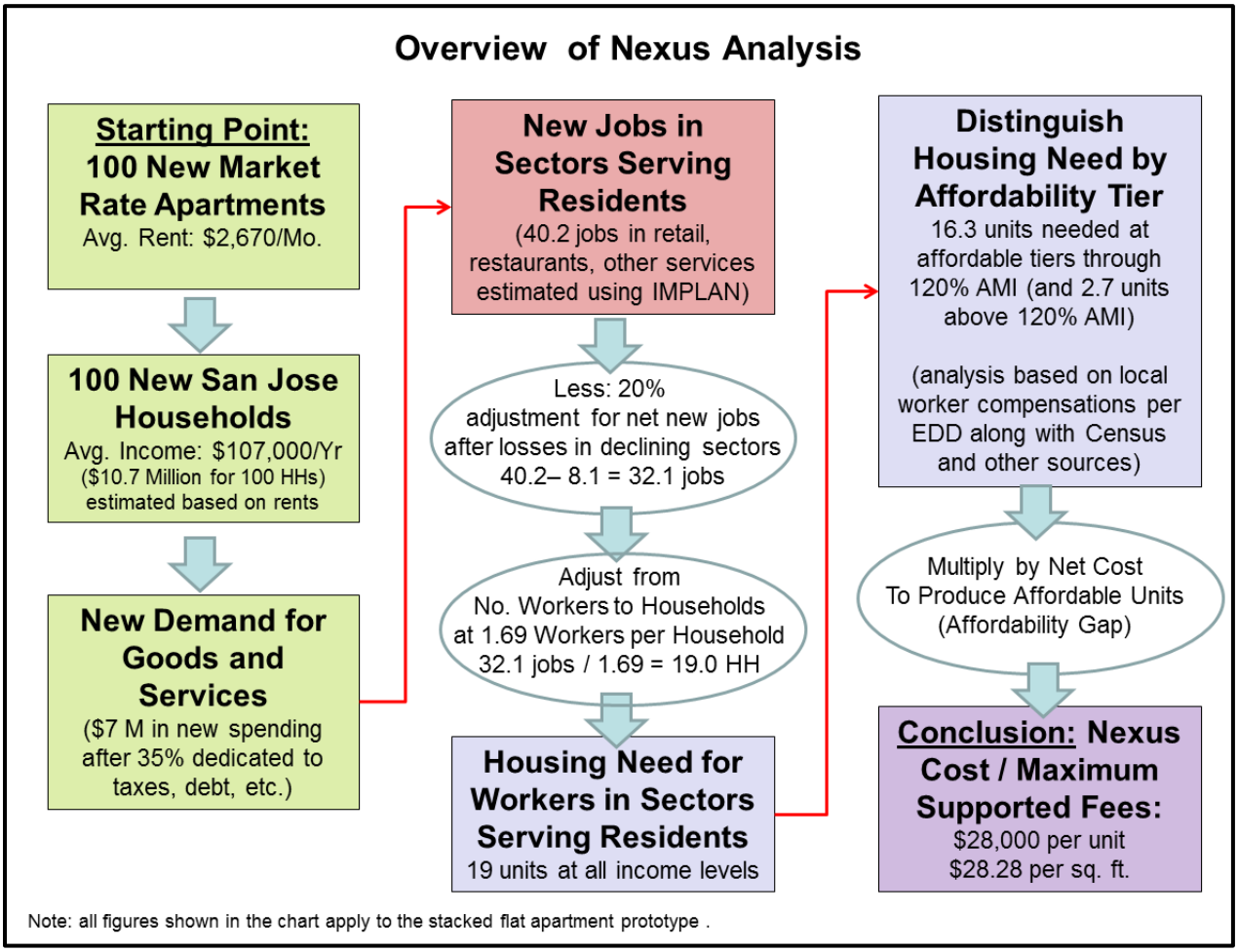
Total Nexus Cost Per Sq. Ft.			
Income Category	*Affordability Gap*	*Apartment*	*High-Rise Apartment*
Prototype Size		*990 SF*	*900 SF*
Extr. Low Income	$256,000	$6.57	$6.44
Very Low Income	$186,000	$9.60	$9.44
Low Income	$151,000	$8.08	$7.89
Moderate	$121,000	$4.04	$4.00
Total Nexus Costs		**$28.28**	**$27.78**

These costs express the total linkage or nexus costs for the two rental prototype developments in San Jose. These total nexus costs represent the ceiling for any impact fee requirement placed on market rate development. **The totals are not recommended levels for fees; they represent only the maximums established by this analysis, below which fees may be set.**

The nexus analysis and conclusions reflect a number of conservative assumptions as described in Section D. Without these conservative assumptions, it is estimated that maximum supported fee levels would be double those shown above for the apartment and more than double for the high-rise apartment.

A supplemental sensitivity analysis requested by the City of San Jose was performed to quantify the nexus cost or maximum supported fees if only jobs within the City of San Jose are counted for purposes of the nexus analysis. Isolating only those impacts experienced within the City's boundaries would reduce the above findings by approximately 7%. See Section E for additional information.

The flow chart below provides a graphical illustration of the nexus analysis.



INTRODUCTION AND OVERVIEW

Keyser Marston Associates (KMA) has prepared this residential nexus analysis for the City of San Jose pursuant to a contractual agreement. On June 4, 2013, the City Council directed City Housing Department staff to solicit an independent consultant to "conduct a nexus study that examines the impact that residential housing development has on the City's need for affordable housing and to return to the City Council with recommendations." This report is the nexus analysis requested by the Council and will form one of the bases for recommendations for the adoption of a housing impact fee consistent with the applicable requirements of the Mitigation Fee Act (or California Government Code 66000 et seq.).

The residential nexus analysis addresses market rate rental units typically built or expected to be built in San Jose in the near term future, and quantifies the linkages between the new market rate units and the demand for affordable housing generated by the residents of the new units.

San Jose Context and Purpose of the Report

The housing policies and programs of the City of San Jose are grounded in its General Plan. The Envision San Jose 2040 General Plan, adopted in 2011, "sets forth a vision and comprehensive road map to guide the City's continued growth through the year 2040." The Housing Element of the General Plan, which was adopted prior to the new plan, states at the outset: "One of the key functions of a city is the provision of housing to shelter its residents." The City's overall housing objective is to provide a wide variety of housing opportunities to meet the needs of all the economic segments of the community.

Leading up to the June 4, 2013 direction to conduct this analysis, the City analyzed the changing situation in the City with respect to its resources for funding its affordable housing programs and options for the situation going forward in a new and different era. San Jose, like other major California cities, has experienced the confluence of several major events that have had a profound influence on the City's resources and ability to maintain its affordable housing programs. The Great Recession beginning in 2008 negatively affected values and tax revenues drastically reduced the rate of new construction while doing little to improve affordability due to loss of jobs, reduced income for many who had to find replacement jobs and very weak overall economic conditions. In addition to the impacts of the Great Recession at the local level, the Recession was largely responsible for the loss of redevelopment statewide and the severe cutbacks in funding for housing at both the state and federal level. Finally, the evolving legal environment with respect to inclusionary housing programs has encouraged cities to seek alternative and/or complementary strategies to address the severe housing affordability problem. These conditions were presented to Council most recently on November 13, 2012 and March 12, 2013 leading to the decision to pursue the possibility of a housing impact fee and the commissioning of this nexus study to demonstrate and quantify the impacts.

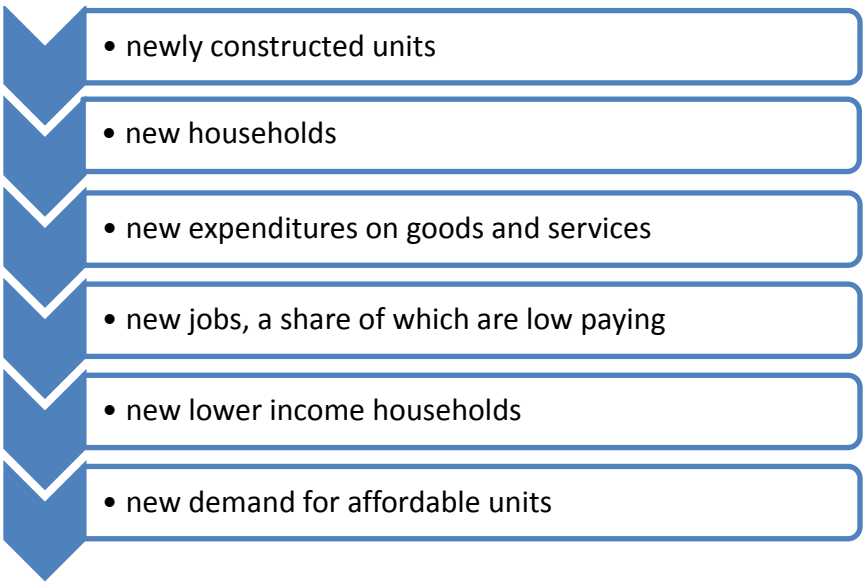
Even before the events of the past five years, San Jose and the region in general, has been one of the most expensive and least affordable housing markets in the country. With the area recovering from the Recession, affordability conditions are as difficult as ever while resources to address the conditions are acutely diminished. The nexus analysis is not, however, an analysis of existing conditions and unmet needs, it is an analysis that examines only the impact of net new development going forward and the impacts associated with the new development.

At the current time the City is considering a Housing Impact Fee that would apply to rental housing development. For-sale or ownership housing development is not being considered for a potential Housing Impact Fee in order to avoid potential confusion with the City's existing Inclusionary Housing Ordinance, which has not been implemented due to on-going litigation now pending before the California Supreme Court. Within redevelopment areas in San Jose, ownership housing is also subject to an existing Inclusionary Policy, currently in force, that requires the inclusion of affordable housing or the payment of an in-lieu fee. Rental projects are not currently subject to either the Inclusionary Policy in redevelopment areas or the City-Wide Inclusionary Ordinance given suspension of those requirements based on the *Palmer* decision.

The Nexus Concept

At its most simplified level, the underlying nexus concept is that the newly constructed units represent net new households in San Jose. These households represent new income in San Jose that will consume goods and services, either through purchases of goods and services or "consumption" of governmental services. New consumption translates to jobs; a portion of the jobs are at lower compensation levels; low compensation jobs relate to lower income households that cannot afford market rate units in San Jose and therefore need affordable housing.

Nexus Analysis Concept



Use of This Study

The nexus study has been prepared for the limited purpose of determining nexus support for a housing impact fee in the City of San Jose affecting new rental residential construction. We caution against the use of this study, or any impact study for that matter, for purposes beyond the intended use. All impact studies are limited and imperfect, but can be helpful for understanding the externalities created by new development. The nexus analysis presented in this report is an impact analysis only and the nexus amounts are not recommended fee levels. The analysis has been prepared solely to demonstrate support for impact fees from the nexus perspective.

This nexus study is designed to analyze the impacts of rental housing projects on the need for affordable housing and examine the nexus between such projects and a separate affordable housing impact fee. The proposed fee is not an inclusionary fee; it is limited to recouping the impacts shown in the study consistent with the Mitigation Fee Act. This study should not be used or considered to evaluate the relationship between the City-Wide Inclusionary Ordinance or the Inclusionary Policy and the prototypical projects described or to imply that such a nexus study is needed.

Methodology and Models Used

The methodology or analysis procedure for this nexus analysis starts with the rent of a new market rate residential unit, and moves through a series of linkages to the gross income of the household that rented the unit, the income available for expenditures on goods and services, the jobs associated with the purchases and delivery of those services, the income of the workers doings those jobs, the household income of the workers and, ultimately, the affordability level of the housing needed by the worker households. The steps of the analysis from household income available for expenditures to jobs generated were performed using the IMPLAN model, a model widely used for the past 35 years to quantify the impacts of changes in a local economy, including employment impacts from changes in personal income. The IMPLAN model distributes spending among various types of goods and services (industry sectors) based on data from the Consumer Expenditure Survey and the Bureau of Economic Analysis Benchmark input-output study, to estimate employment generated. The Consumer Expenditure Survey published by the Bureau of Labor Statistics tracks expenditure patterns by income level. IMPLAN utilizes this data to reflect the pattern by income bracket. From job generation by industry, KMA used its own jobs housing nexus model to quantify the income of worker households by affordability level.

To illustrate the linkages by looking at a simplified example, we can take an average household that rents a new apartment unit. From the rental rate, we estimate the gross income of the household (based on the estimated percentage of income spent on rent) and from there, the portion of income available for expenditures. Households will “purchase” or consume a range of goods and services, such as purchases at the supermarket or services at the bank. Purchases in the local economy in turn generate employment. The jobs generated are at different

compensation levels. Some of the jobs are low paying and as a result, even when there is more than one worker in the household, there are some lower and middle-income households who cannot afford market rate housing in San Jose.

The IMPLAN model quantifies jobs generated at establishments that serve new residents directly (e.g., supermarkets, banks or schools), jobs generated by increased demand at firms which service or supply these establishments, and jobs generated when the new employees spend their wages in the local economy and generate additional jobs. The IMPLAN model estimates the total impact combined.

Net New Underlying Assumption

An underlying assumption of the analysis is that households that rent new units represent net new households in San Jose. These net new households represent net new income and net new demand for goods and services in the City which in turn drives a net increase in employment within industries that serve new residents. If households have relocated from elsewhere in the City, vacancies have been created that will be filled. An adjustment to new construction of units would be warranted if San Jose were experiencing demolitions or loss of existing housing inventory. However, the rate of housing unit removal is so low as to not warrant an adjustment or offset[2].

On an individual project basis, if existing units are removed to redevelop a site to higher density, then there could be a need for recognition of the existing households in that all new units might not represent net new households, depending on the program design and number of units removed relative to new units.

Since the analysis addresses net new households in San Jose and the impacts generated by their consumption expenditures, it quantifies net new demands for affordable units to accommodate new worker households. As such, the impact results do not address nor in any way include existing deficiencies in the supply of affordable housing.

Geographic Area of Impact

The analysis quantifies impacts occurring within Santa Clara County. While much of the impact will occur within the City of San Jose, some impacts will be experienced elsewhere in the County and beyond (Section E presents an analysis of the portion of impacts occurring within the City of San Jose as opposed to Countywide). The IMPLAN model computes the jobs generated within the County and sorts out those that occur beyond the County boundaries. The KMA Jobs Housing Nexus Model analyzes the income structure of jobs and their worker households, without assumptions as to where the worker households live.

[2] Based on demolition permit data maintained by the City of San Jose, there have been an average of 34 housing units demolished annually over the past five years which represents a rate of approximately 0.01% of the total housing stock.

In summary, the KMA nexus analysis quantifies all the job impacts occurring within Santa Clara County and related worker households. Job impacts, like most types of impacts, occur irrespective of political boundaries. And like other types of impact analyses, such as traffic, impacts beyond city boundaries are experienced, are relevant, and are important. See the Addendum: Additional Background and Notes on Specific Assumptions at the end of this report for further discussion.

Affordability Tiers

The nexus analysis addresses the following four income or affordability tiers:

- Extremely Low Income (under 30% of Area Median Income or AMI)
- Very Low Income (under 50% of AMI)
- Low Income (50% to 80% AMI)
- Moderate Income (80% to 120% AMI)

Report Organization

The report is organized into five sections as follows:

- Section A. presents information regarding the prototypical new market rate rental units and the estimated household income of renters of those units.

- Section B. describes the IMPLAN model which is used in the nexus analysis to translate household income into the estimated number of jobs in retail, restaurants, healthcare, and other sectors serving new residents.

- Section C. presents the linkage between employment growth associated with market rate rental housing development and the need for new lower income housing units required in each of four income categories.

- Section D. quantifies the nexus or mitigation cost based on the cost of delivering affordable units to new worker households in each of the four lower income categories.

- Section E. presents a sensitivity analysis for the nexus results if only impacts experienced within the City's jurisdictional boundaries are included.

In addition to this nexus study, KMA has prepared a separate report to accompany the nexus study containing materials to assist in selecting an impact fee level for San Jose. The supplemental materials include a summary of affordable housing requirements and impact fees in selected Bay Area jurisdictions for comparison purposes, an analysis of potential fee levels relative to total development costs, and a real estate financial feasibility analysis.

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A. MARKET RATE UNITS AND HOUSEHOLD INCOME

This section describes the prototypical market rate rental units and the income of the renter households. The rental prototypes are representative of new units currently being built in San Jose or that are likely to be built in San Jose over the next several years. Household income is estimated based on the amount necessary for the rent payments associated with the prototypical new market rate units and becomes the basis for the input to the IMPLAN model described in Section B of this report. These are the starting points of the chain of linkages that connect new market rate units to incremental demand for affordable residential units.

This section provides a summary of the prototypes and household income. More description and supporting tables are provided in Appendix 1.

Recent Housing Market Activity and Prototypical Units

The City of San Jose provided KMA with programmatic assumptions behind the two apartment prototypes used in the analysis. KMA then undertook a market survey of projects covering these prototypes. The survey was taken in the summer of 2013, in the midst of a very active time for development of new rental units in San Jose with many recently completed projects and more in the pipeline.

The results of the market survey and the selection of two prototypes are summarized in the table below. The main objective of the survey was to establish current rents per unit and per square foot for recently developed apartments in San Jose. Table A-1 at the end of this section provides a more detailed summary of the two apartment prototypes.

It is important to note that the prototypes analysis is intended to reflect average or typical apartment projects in the San Jose market rather than any specific project. It would be expected that specific projects would vary to some degree from the prototypes.

In summary, the prototypes tested in the nexus analysis are as follows:

Rental Prototypes	*Apartment*	*High-Rise Apartment*
Avg. Unit Size	990 SF	900 SF
Avg. No. of Bedrooms	1.64 BR	1.35 BR
Avg. Rent	$2,670/mo.	$2,340/mo.

Income of Renter Households

After the prototypes are established, the next step in the analysis is to determine the income of the renter households in the prototypical units. Household income for renter households is estimated based on the assumption that rent represents, on average, 30% of gross household income, a percentage that is consistent with the average for Santa Clara County reported by the

Census of 28.9%.[3] While slightly above the average from the Census, the 30% factor was selected for consistency with the California Health and Safety Code standard for relating income to affordable rent levels[4]. The resulting relationship is that annual household income is 3.3 times annual rent. Selection of 30% produces a lower estimate of gross household income and lower resulting nexus conclusions than if the exact average from the Census at 28.9% were used; therefore, this represents a conservative approach for purposes of the nexus analysis. While leasing agents and landlords may permit rental payments to represent a slightly higher share of total income[5], use of the 30% factor, which is representative of the average, is appropriate. Further, many renters will choose to spend less than 30% of their income on rent where possible, since, unlike an ownership situation, the unit is not viewed as an investment with value enhancement potential. It is noted that although the City's 2007 – 2014 Housing Element shows that many lower income renter households spend 30% or more of their income on rent, only about 8% of renter households earning $75,000 or above (i.e. the households occupying the prototypical new market rate rental units addressed in this nexus analysis) spend 30% or more of their income on rent[6].

The estimated gross household incomes of the purchasers or renters of the prototype units are calculated in tables A-2 and A-3, and summarized below.

Gross Household Income		
	Apartment	*High-Rise Apartment*
Gross Household Income	$107,000	$94,000

Income Available for Expenditures

The input into the IMPLAN model used in this analysis is the net income available for expenditures. To arrive at income available for expenditures, gross income must be adjusted for Federal and State income taxes, contributions to Social Security and Medicare, savings, and payments on household debt. Per KMA correspondence with the producers of the IMPLAN model (IMPLAN Group LLC), other taxes including sales tax, gas tax, and property tax are handled internally within the model as part of the analysis of expenditures. Housing costs are addressed separately, as described below, and so are not deducted as part of this adjustment step. Table A-4 at the end of this section shows the calculation of income available for expenditures.

Income available for expenditures is estimated at 65% and 66% of gross income for the apartment and high-rise apartments, respectively. The estimate is based on a review of data from the Internal Revenue Service and California Franchise Tax Board tax tables. Per the Internal Revenue Service, households earning between $100,000 and $200,000 per year who

[3] 2010-2012 American Community Survey.
[4] Health and Safety Code Section 50052.5 defines affordable rent levels based on 30% of income.
[5] Irvine Company Apartment Communities and Shea Apartment Living which have newer apartment properties in San Jose each have a minimum qualifying standard of gross income at least 2.7 times rent which equates to a maximum of 37% of gross income that may be spent on rent.
[6] Based on 2010 to 2012 American Community Survey Data for the City of San Jose.

do not itemize deductions[7], or the residents of our prototypical apartments, will pay an average of 14% of gross income for federal taxes. Higher tax rates for the $100,000 to $200,000 category are applied for the high-rise apartment prototype as a conservative assumption, although the estimated income is slightly less than $100,000. State taxes are estimated to average between 4% and 5% of gross income based on tax rates per the California Franchise Tax Board. The employee share of the FICA payroll taxes for Social Security and Medicare is 7.65% of gross income (conservatively assumes all earners in the household are within the $117,000 ceiling on income subject to Social Security taxes).

Savings and repayment of household debt represent another necessary adjustment to gross income. Savings includes various IRA and 401k type programs as well as non-retirement household savings and investments. Debt repayment includes auto loans, credit cards, and all other non-mortgage debt. Savings and repayment of debt are estimated to represent a combined 8% of gross income based on the 20 year average derived from United States Bureau of Economic Analysis data.

The percentage of income available for expenditure for input into the IMPLAN model is prior to deducting housing costs. The reason is for consistency with the IMPLAN model which defines housing costs as expenditures. The IMPLAN model addresses the fact that expenditures on housing do not generate employment to the degree other expenditures such as retail or restaurants do, but there is a limited amount of employment such as maintenance and property management.

After deducting income taxes, Social Security, Medicare, savings, and repayment of debt, the estimated income available for expenditures is estimated at 65% to 66%. This is the factor used to adjust from gross income to the income available for expenditures for input into the IMPLAN model.

Estimates of household income available for expenditures are presented in the following table:

Income Available for Expenditures		
	Apartment	*High-Rise Apartment*
Gross Household Income	$107,000	$94,000
Percent Income Available for Expenditures	65%	66%
Household Income Available for Expenditures [Input to IMPLAN model]	$69,600	$62,000

The nexus analysis is conducted on 100-unit building modules for ease of presentation, and to avoid awkward fractions. Tables A-5 summarizes the conclusions of this section and calculates the household income for the 100-unit building modules. This is the input into the IMPLAN model.

[7] For purposes of the analysis, renter households are assumed to take the standard deduction on their taxes (rather than itemize deductions). Renter households would generally not have mortgage interest or real estate taxes to deduct and are therefore assumed to be more likely to take the standard deduction. This results in a higher than average tax rate being applied relative to other tax payers with the same income.

TABLE A - 1
SUMMARY OF RESIDENTIAL PROTOTYPES
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

	Prototype 1 Type V Stacked Flat Apartments	Prototype 2 High-Rise Apartments
Density	65 du/acre	300 du/acre
Avg Unit sq. ft.	990 sf	900 sf
Avg bedrooms	1.64 BR	1.35 BR
Building Type	4 stories on podium	High-rise
Off Street Parking/unit	1.45 spaces	1.20 spaces
Rent	$2,673	$2,340
Per Sq. Ft.	$2.70	$2.60

Source: City of San Jose Housing and Planning staff based on a review of recent and proposed residential projects in the City. These programmatic assumptions are consistent with the types of residential projects that the City anticipates being developed in the foreseeable future; rents estimated by KMA (See Appendix 1 Market Survey).

TABLE A-2
PROTOTYPE 1: APARTMENT
RENT TO INCOME RATIO
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

			Prototype 1 Stacked Flat Apartment (Type V)
Market Rent			
Monthly	$2.70 /SF	990 SF	$2,670 [1]
Annual			$32,040
% of Income Spent on Rent (excludes utilities)			30% [2]
Annual Household Income Required			**$107,000**
Annual Rent to Income Ratio			3.3

(1) Rent level reflects new and newer apartment units in San Jose derived from the market survey included in Appendix 1. New units generally command higher rents than older units due to amenity levels and condition of the units.

(2) Renter households are assumed to spend 30% of income on rent, or slightly more than the median for Santa Clara County renter households at 28.9% per the 2010 - 2012 American Community Survey. While landlords may permit rental payments to represent a slightly higher share of total income, 30% represents an average. For example, Irvine Company Apartment Communities and Shea Apartment Living which each have newer apartment properties in San Jose have a qualifying standard of gross income at least 2.7 times the rent, equivalent to a maximum of 37% of gross income that may be spent on rent.

TABLE A-3
PROTOTYPE 2: HIGH-RISE APARTMENT
RENT TO INCOME RATIO
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

			Prototype 2 High-Rise Apartment	
Market Rent				
Monthly	$2.60 /SF	900 SF	$2,340	(1)
Annual			$28,080	
% of Income Spent on Rent (excludes utilities)			30%	(2)
Annual Household Income Required			**$94,000**	
Annual Rent to Income Ratio			3.3	

(1) Market rent based on survey of current asking rents in the one newer high rise building renting at this time, a converted condominium project. Rents need to be substantially higher than indicated above for financial feasibility. Market survey information is presented in Appendix 1.

(2) Renter households are assumed to spend 30% of income on rent, or slightly more than the median for Santa Clara County renter households at 28.9% per the 2010 - 2012 American Community Survey. While landlords may permit rental payments to represent a slightly higher share of total income, 30% represents an average. For example, Irvine Company Apartment Communities and Shea Apartment Living which each have newer apartment properties in San Jose have a qualifying standard of gross income at least 2.7 times the rent, equivalent to a maximum of 37% of gross income that may be spent on rent.

TABLE A-4
INCOME AVAILABLE FOR EXPENDITURES[1]

RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

	Prototype 1: **APARTMENT**	Prototype 2: **HIGH-RISE APARTMENT**
Gross Income	100%	100%
Less:		
Federal Income Taxes [2]	14.1%	14.1%
State Income Taxes [3]	5%	4%
FICA Tax Rate [4]	7.65%	7.65%
Savings and other deductions [5]	8%	8%
Percent of Income Available for Expenditures [6] [Input to IMPLAN model]	***65%***	***66%***

Notes:

1 Income available for expenditures is the input to the IMPLAN model which is used to estimate the resulting employment impacts. Housing costs are not deducted as part of this adjustment step because they are addressed separately as expenditures within the IMPLAN model.

2 Reflects average tax rates (as opposed to marginal) based on U.S. Internal Revenue Services, Tax Statistics, Tables 1.1 and 2.1. Estimates reflect taxpayers who take the standard deduction (given renter households without a mortgage are less likely to itemize deductions). Data is for the 2011 tax year, the most recent available. Average tax rate for AGI of $100,000 to $200,000 of 14.1% is applied to both prototypes although household income for prototype 2 is estimated to be slightly below $100,000 (conservative assumption given average for households in the $75-100,000 range is 10.3%).

3 Average tax rate estimated by KMA based on marginal rates per the California Franchise Tax Board and ratios of taxable income to gross income estimated based on U.S. Internal Revenue Service data. The higher average tax rates applicable to single or married filing separately tax filers is applied in the analysis so as to produce a conservative (likely understated) estimate.

4 For Social Security and Medicare. Conservatively assumes all income will be subject to Social Security taxes. The current ceiling on applicability of Social Security taxes is $117,000 (ceiling applies per earner not per household).

5 Household savings including retirement accounts like 401k / IRA and other deductions such as interest costs on credit cards, auto loans, etc, necessary to determine the amount of income available for expenditures. The 8% rate used in the analysis is based on the average over the past 20 years computed from U.S. Bureau of Economic Analysis data, specifically the National Income and Product Accounts, Table 2.1 "Personal Income and It's Disposition."

6 Deductions from gross income to arrive at the income available for expenditures are consistent with the way the IMPLAN model and National Income and Product Accounts (NIPA) defines income available for personal consumption expenditures. Income taxes, contributions to Social Security and Medicare, and savings are deducted; however, property taxes and sales taxes are not. Housing costs are not deducted as part of the adjustment because they are addressed separately as expenditures within the IMPLAN model.

TABLE A-5
NEW MARKET RATE RESIDENTIAL HOUSEHOLD SUMMARY
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

		Per Unit	Per Sq.Ft.	100 Unit Building Module
PROTOTYPE 1: APARTMENT				
Units				***100 Units***
Building Sq.Ft. (net rentable area)		990		99,000
Rent				
Monthly		$2,670	$2.70 /SF	$267,000
Annual		$32,040	$32.40 /SF	$3,204,000
Rent to Income Ratio		3.3		3.3
Gross Household Income		$107,000		**$10,700,000**
Income Available for Expenditure[1]	65% of gross	$69,600		**$6,960,000**
PROTOTYPE 2: HIGH-RISE APARTMENT				
Units				***100 Units***
Building Sq.Ft. (net rentable area)		900		90,000
Rent				
Monthly		$2,340	$2.60 /SF	$234,000
Annual		$28,080	$31.20 /SF	$2,808,000
Rent to Income Ratio		3.3		3.3
Gross Household Income		$94,000		**$9,400,000**
Income Available for Expenditure[1]	66% of gross	$62,000		**$6,200,000**

Notes:

(1) Represents net income available for expenditures after income tax, payroll taxes, and savings. See Table A-4 for derivation.

Source: Table A-2 and A-4.

B. THE IMPLAN MODEL

Consumer spending by residents of new housing units will create jobs, particularly in sectors such as restaurants, health care, and retail, which are closely connected to the expenditures of residents. The widely used economic analysis tool, IMPLAN (IMpact Analysis for PLANning), was used to quantify these new jobs by industry sector.

IMPLAN Model Description

The IMPLAN model is an economic analysis tool commercially available through the IMPLAN Group, LLC. The IMPLAN model is applied to link household income available for expenditures to job growth occurring in Santa Clara County. The IMPLAN model distributes spending among various types of goods and services (industry sectors) based on data from the Consumer Expenditure Survey and the Bureau of Economic Analysis Benchmark input-output study, to estimate employment generated.

IMPLAN data sets are available for each county and state and are tailored to the specific economic conditions of the region being analyzed. This analysis utilizes the data set for Santa Clara County. As will be discussed, much of the employment impact is in local-serving sectors, such as retail, eating and drinking establishments, and medical services. A significant portion of these jobs will be located in San Jose or nearby. In addition, the employment impacts will extend throughout the County and beyond based on where jobs are located that serve San Jose residents. In fact, San Jose is part of the larger Bay Area economy and impacts will likewise extend throughout the region. However, consistent with the conservative approach taken in the nexus analysis, only the impacts that occur within Santa Clara County are included in the analysis. Further description of the IMPLAN model is provided within the Addendum section.

Application of the IMPLAN Model to Estimate Job Growth

The IMPLAN model was applied to link household income available for expenditures to job growth occurring in Santa Clara County. Employment generated by the household income of residents is analyzed in modules of 100 residential units to simplify communication of the results and avoid awkward fractions. The IMPLAN model distributes spending among various types of goods and services (industry sectors) based on data from the Consumer Expenditure Survey and the Bureau of Economic Analysis Benchmark input-output study, to estimate employment generated.

Job creation, driven by increased demand for products and services, was projected for each of the industries that will serve the new households. The employment generated by this new household spending is summarized below.

Jobs Generated Per 100 Units		
	Apartment	*High-Rise Apartment*
Annual Expenditures per Household	$69,600	$62,000
Annual Household Expenditures, 100 Units [input to IMPLAN]	$6,960,000	$6,200,000
Total Jobs Generated, 100 Units [from IMPLAN]	40.2	35.8

Table B-1 provides a detailed summary of employment generated by industry. The table shows industries sorted by projected employment. The Consumer Expenditure Survey published by the Bureau of Labor Statistics tracks expenditure patterns by income level. IMPLAN utilizes this data to reflect the pattern by income bracket. In the case of the San Jose prototypes, the $75,000 to $100,000 income bracket is applied. While estimated household income for the two prototypes is near the $100,000 threshold, with one just above and the other just below, the $75,000 to $100,000 category is used because it produces a more conservative (lower) result than if the $100,000 to $150,000 category had been applied. Estimated employment is shown for each IMPLAN industry sector representing 1% or more of total employment. The jobs that are generated within the County are heavily retail jobs, jobs in restaurants and other eating establishments, and in services that are provided locally such as health care. The jobs counted in the IMPLAN model cover all jobs, full and part time, similar to the U.S. Census and all reporting agencies (unless otherwise indicated).

TABLE B-1
IMPLAN MODEL OUTPUT - RENTAL PROTOTYPES
EMPLOYMENT GENERATED
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

Per 100 Market Rate Units

	Prototype 1: APARTMENT	Prototype 2: HIGH-RISE APARTMENT	% of Jobs
Household Expenditures: 100 Market Rate Units [1]	$6,960,000	$6,200,000	
Jobs Generated by Industry [2]			
Retail Stores - General merchandise	1.5	1.3	4%
Retail Stores - Food and beverage	1.4	1.3	4%
Retail Stores - Motor vehicle and parts	0.8	0.7	2%
Retail Stores - Clothing and clothing accessories	0.8	0.7	2%
Retail Stores - Miscellaneous	0.8	0.7	2%
Retail Stores - Health and personal care	0.6	0.5	2%
Retail Stores - Building material and garden supply	0.4	0.4	1%
Retail Stores - Sporting goods, hobby, book and music	0.4	0.3	1%
Retail Nonstores - Direct and electronic sales	0.3	0.3	1%
Subtotal Retail	7.1	6.3	18%
Offices of physicians, dentists, and other health practitioners	3.0	2.7	8%
Private hospitals	2.3	2.0	6%
Nursing and residential care facilities	1.5	1.3	4%
Medical and diagnostic labs and outpatient care services	0.6	0.6	2%
Subtotal Health Care	7.4	6.6	19%
Food services and drinking places	6.3	5.6	16%
Real estate establishments	2.0	1.8	5%
Private household operations	1.3	1.1	3%
Wholesale trade businesses	1.0	0.9	3%
Personal care services	0.8	0.7	2%
Colleges, universities, and professional schools	0.8	0.7	2%
Civic, social, professional, and similar organizations	0.6	0.5	1%
Individual and family services	0.6	0.5	1%
Securities, commodity contracts, investments, and related	0.6	0.5	1%
Services to buildings and dwellings	0.6	0.5	1%
Private elementary and secondary schools	0.5	0.5	1%
Other private educational services	0.5	0.5	1%
Monetary authorities and depository credit intermediation	0.5	0.4	1%
Automotive repair and maintenance, except car washes	0.5	0.4	1%
Amusement parks, arcades, and gambling industries	0.4	0.4	1%
Child day care services	0.4	0.3	1%
Legal services	0.4	0.3	1%
Employment services	0.4	0.3	1%
Funds, trusts, and other financial vehicles	0.2	0.2	1%
All Other	7.5	6.7	19%
Total Number of Jobs Generated	40.2	35.8	100%

[1] Estimated employment generated by household expenditures within 100 prototypical market rate units. Employment estimates are based on the IMPLAN Group's economic model, IMPLAN, for Santa Clara County. For purposes of these estimates, the $75,000 to $100,000 household income category is applied. The estimated household income for the two prototypes is close to the $100,000 threshold between income categories in the IMPLAN model. The $75,000 to $100,000 category was selected given it produces a more conservative (lower) result.

[2] For industries representing more than 1% of total employment.

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C. THE KMA JOBS HOUSING NEXUS MODEL

This section presents a summary of the analysis linking the employment growth associated with residential development, or the output of the IMPLAN model (see Section B), to the estimated number of lower income housing units required in each of four income categories, for the two residential prototype units.

Analysis Approach and Framework

The analysis approach is to examine the employment growth for industries related to consumer spending by residents in the 100-unit modules. Then, through a series of linkage steps, the number of employees is converted to households and housing units by affordability level. The findings are expressed in terms of numbers of affordable units per 100 market rate units.

The analysis addresses the affordable unit demand associated with new market rate apartments in San Jose. The table below shows the 2014 Santa Clara County Area Median Income (AMI), as well as the income limits for the four categories that were evaluated: Extremely Low (30% of AMI), Very Low (50% of AMI), Low (80% of AMI), and Moderate (120% of AMI). The income definitions used in the analysis are those published by the California Department of Housing and Community Development (HCD).

2014 Income Limits for Santa Clara County

	Household Size (Persons)					
	1	2	3	4	5	6 +
Extremely Low (30% of Median)	$22,300	$25,500	$28,650	$31,850	$34,400	$36,950
Very Low (50% of Median)	$37,150	$42,450	$47,750	$53,050	$57,300	$61,550
Low (80% of Median)	$59,400	$67,900	$76,400	$84,900	$91,650	$98,450
Moderate (120% of Median)	$88,600	$101,300	$113,950	$126,600	$136,750	$146,850
Median (100% of Median)	$73,850	$84,400	$94,950	$105,500	$113,950	$122,400

The analysis is conducted using a model that KMA developed and has applied to similar evaluations in many other jurisdictions. The model inputs are all local data to the extent possible, and are fully documented in the following description.

Analysis Steps

The tables at the end of this section present a summary of the nexus analysis steps for the prototype units. Following is a description of each step of the analysis.

Step 1 – Estimate of Total New Employees

Table C-1 commences with the total number of employees associated with the new market rate units. The employees were estimated based on household expenditures of new residents using the IMPLAN model (see Section B).

Step 2 –Changing Industries Adjustment and Net New Jobs

The Silicon Valley economy, like that of the U.S. as a whole, is constantly evolving. In Silicon Valley, over the past decade, employment in manufacturing sectors of the economy has continued to decline along with governmental employment at all levels (Federal, State, and local), farming, and construction employment. Jobs lost over the last decade in these declining sectors were replaced by job growth in other industry sectors.

Step 2 makes an adjustment to take these declines, changes and shifts within all sectors of the economy into account recognizing that jobs added are not 100% net new in all cases. A 20% adjustment is utilized based on the long term shifts in employment that have occurred in some sectors of the Santa Clara County / Silicon Valley economy and the potential for continuing changes in the future. Long term declines in employment experienced in some sectors of the economy mean that some of the new jobs may be filled by workers that have been displaced from another industry and who are presumed to already have housing locally. Existing workers downsized from declining industries are assumed to be available to fill a portion of the new retail, restaurant, health care, and other jobs associated with services to residents. This is a very conservative assumption given the California Employment Development Department is not projecting declines in any major industry sectors in Santa Clara County through 2020 and to the extent there are displaced workers from declining industry sectors, workers may exit the workforce entirely by retiring rather than seek a job in one of the sectors serving new residents.

The 20% downward adjustment used for purposes of the analysis was derived from California Employment Development Department historic monthly employment data by industry over the past 10 years. The most recent data for June 2013 was compared to April 2004, selected based on having a 6.8% unemployment rate, approximately the same as the 6.9% unemployment rate in June 2013. Selecting two periods that have similar unemployment levels is to distinguish long-term declines from short-term effects of economic cycles which do not warrant an adjustment in the analysis. Over this period, approximately 18,700 jobs were lost in Santa Clara County in declining industry sectors. Over the same period, growing and stable industries added a total of 95,400 jobs. These figures are used to establish a ratio between jobs lost in declining industries to jobs gained in growing and stable industries at 20%[8]. The 20% factor is applied as an adjustment in the analysis, effectively assuming one in every five new jobs is filled by a worker down-sized from a declining industry and who already lives locally.

[8] The 20% ratio is calculated as 18,700 jobs lost in declining sectors divided by 95,400 jobs gained in growing and stable sectors = 19.6% (rounded to 20%).

Step 3 – Adjustment from Employees to Employee Households

This step (Table C-1) converts the number of employees to the number of employee households, recognizing that there is, on average, more than one worker per household, and thus the number of housing units in demand for new workers is reduced. The workers-per-worker-household ratio eliminates from the equation all non-working households, such as retired persons, students, and those on public assistance. The County average of 1.69 workers per worker household (from the U. S. Census Bureau 2010-2012 American Community Survey) is used for this step in the analysis. The number of jobs is divided by 1.69 to determine the number of worker households. This ratio is distinguished from the overall number of workers per household in that the denominator includes only households with at least one worker. If the average number of workers in all households were used, it would have produced a greater demand for housing units. The 1.69 ratio covers all workers, full and part time.

Step 4 – Occupational Distribution of Employees

The occupational breakdown of employees is the first step to arrive at income level. The output from the IMPLAN model provides the number of employees by industry sector, shown in Table B-1. The IMPLAN output is paired with data from the Department of Labor, Bureau of Labor Statistics May 2012 Occupational Employment Survey (OES) to estimate the occupational composition of employees for each industry sector.

Step 4a - Translation from IMPLAN Industry Codes to NAICS Industry Codes

The output of the IMPLAN model is jobs by industry sector using IMPLAN's own industry classification system which consists of 440 industry sectors. The OES occupation data uses the North American Industry Classification System (NAICS). Estimates of jobs by IMPLAN sector must be translated into estimates by NAICS code for consistency with the OES data.

The NAICS system is organized into industry codes ranging from two- to six-digits. Two-digit codes are the broadest industry categories and six-digit codes are the most specific. Within a two-digit NAICS code, there may be several three-digit codes and within each three digit code, several four-digit codes, etc. A chart published by IMPLAN relates each IMPLAN industry sector with one or more NAICS codes, with matching NAICS codes ranging from the two-digit level to the five-digit level. For purposes of the nexus analysis, all employment estimates must be aggregated to the four digit NAICS code level to align with OES data which is organized by four-digit NAICS code. For some industry sectors, an allocation is necessary between more than one four-digit NAICS code. Where required, allocations are made proportionate to total employment at the national level from the OES.

The table below illustrates analysis Step 4a in which employment estimates by IMPLAN Code are translated to NAICS codes and then aggregated at the four digit NAICS code level. The examples used are Child Day Care Centers and Food and Drinking Places. The process is applied to all the industry sectors.

Illustration of Model Step 4a.

A. IMPLAN Output by IMPLAN Industry Sector		B. Link to Corresponding NAICS Code		C. Aggregate at 4-Digit NAICS Code Level		
Jobs	IMPLAN Sector	Jobs	NAICS Code	Jobs	% Total Employment	4-Digit NAICS
0.4	399 - Child day care services	0.4	6244 Child day care services	0.4	100%	6244 Child day care services
6.3	413 - Food and Drinking Places	6.3	722 Food and Drinking Places	5.6	90%	7225 Restaurants and Other Eating Places
				0.4	6%	7223 Special Food Services
				0.3	4%	7224 Drinking Places (Alcoholic Beverages)

Step 4b – Apply OES Data to Estimate Occupational Distribution

Employment estimates by four-digit NAICS code from step 4a are paired with data on occupational composition within each industry from the OES to generate an estimate of employment by detailed occupational category. As shown on Table C-1, new jobs will be distributed across a variety of occupational categories. The three largest occupational categories are food preparation and serving (17%), office and administrative support (16%), and sales (15%). Step 4 of Table C-1 indicates the percentage and number of employee households by occupation associated with 100 market rate units.

Step 5 – Estimates of Employee Households Meeting the Lower Income Definitions

In this step, occupations are translated to employee incomes based on recent Santa Clara County wage and salary information from the California Employment Development Department (EDD). The wage and salary information summarized in Appendix 2 Table 2 provided the income inputs to the model.

For each occupational category shown in Table C-1, the OES data provides a distribution of specific occupations within the category. For example, within the Food Preparation and Serving Category, there are Supervisors, Cooks, Bartenders, Waiters and Waitresses, Dishwashers, etc. In total there are over 100 detailed occupation categories included in the analysis as shown in Appendix 2, Table 2. Each of these over 100 occupation categories has a different distribution of wages which was obtained from EDD and is specific to workers in Santa Clara County as of 2013.

For each detailed occupational category, the model uses the distribution of wages to calculate the percent of worker households that would fall each income category. The calculation is

performed for each possible combination of household size and number of workers in the household. For households with more than one worker, individual *employee* income data was used to calculate the household income by assuming multiple earner households are, on average, formed of individuals with similar incomes.

The table below illustrates Step 5 as applied to food preparation and serving workers. Annual compensation for food preparation and serving workers in Santa Clara County as of 2013 is distributed[9] around a mean of $21,400. For households with one worker, 68% of one person households and 100% of households with two or more persons are estimated to qualify as Extremely Low. Few households with two or more workers would qualify as Extremely Low.

Step 5 Illustration for Food Preparation and Serving Worker Households
Percent Qualifying as ELI for Each Possible Household Size / No. of Workers Combination

	Percent of Worker Households That Would Qualify as Extremely Low For Each Possible Combination of Household Size and No. of Workers Applying 2014 Income Limits for Santa Clara County					
HH Size	1 Person	2 Person	3 Person	4 Person	5 Person	6 Person
Limit	$22,300	$25,500	$28,650	$31,850	$34,400	$36,950
No. Workers in Household						
1	68%	100%	100%	100%	100%	100%
2	N/A	0%	0%	0%	0%	30%
3 or more[10]	N/A	N/A	0%	0%	0%	0%

The step illustrated above is repeated around 400 times in the nexus analysis for each of the over 100 detailed occupations and at each of the four affordable income tiers. At the end of Step 5, the nexus model has established a matrix indicating the percentages of households that would qualify in the affordable income tiers for every detailed occupational category and every potential combination of household size and number of workers in the household.

Step 6 – Distribution of Household Size and Number of Workers

In this step, the model examines the demographics of Santa Clara County in order to develop probability factors for each potential combination of household size and number of workers.

The table below presents one of the five sets of probability factors applied in the model. The factors represent the probability that a worker is a member of a household of a given size and number of workers. Five separate sets of probability factors are used to reflect differences in household patterns by income.

[9] In addition to the mean compensation, EDD reported 25th, 50th, and 75th percentile compensations are utilized.
[10] Census data aggregates households with three or more workers; therefore, a corresponding aggregation is necessary for purposes of the analysis.

Step 6: Probability Factors for Combinations of Number of Workers and Household Size Applicable to Workers Earning From $15,000 to $25,000 for Santa Clara County

	Household Size (Persons)					
	1	2	3	4	5	6+
No. Workers in Household						
1	0.124092	0.082343	0.061239	0.048942	0.021953	0.020906
2	N/A	0.124668	0.102641	0.110733	0.049670	0.047300
3 or more	N/A	N/A	0.053973	0.080791	0.036239	0.034510

Note: probability factors sum to 1.00000
Factors shown apply to workers earning from $15,000 to $25,000

Probability factors are specific to Santa Clara County and are derived from a special tabulation of the 2006 – 2010 American Community Survey[11]. Application of these probability factors accounts for the following:

- Households have a range in size and a range in the number of workers.
- Large households generally have more workers than smaller households.
- Lower paid workers in Santa Clara County are more likely to be members of households with multiple incomes. Lower paid workers have a practical need to combine multiple incomes in a household to make ends meet, either through living with roommates, having multiple family members who work, or combining incomes in multi-generational households. Younger workers at the lower end of the pay scale may continue to live with parents into early adulthood or beyond. Higher paid workers have less financial need to live with roommates, or for family households, more ability to manage on one income. The table below illustrates the variation. As shown, workers in the $15,000 to $25,000 range are almost twice as likely to be a part of a household that has at least one other income as workers earning $75,000 or above. The model accounts for patterns specific to Santa Clara and specific to the compensation levels of the workers in industries serving new residents through application of separate sets of probability factors for five separate compensation ranges.

[11] The 2006-2010 American Community Survey data is the most recent available data in this special tabulation.

Number of Workers in Household by Income – Santa Clara County

		Average Annual Income Per Worker in Household				
	Total Working Households[12]	$15k to $25k	$25k to $35k	$35k to $50k	$50k to $75k	$75k or more
Households with						
one worker	50%	36%	36%	42%	40%	63%
two or more workers	50%	64%	64%	58%	60%	37%
	100%	100%	100%	100%	100%	100%

The result of Step 6 is a distribution of Santa Clara County working households by number of workers and household size.

Step 7 – Estimate of Number of Households that Meet Size and Income Criteria

Step 7 is the final step to calculate the number of worker households meeting the size and income criteria for the four affordability tiers. The calculation combines the matrix of results from Step 5 on percentage of worker households that would meet the income criteria at each potential household size / no. of workers combination, with Step 6, the probability of a worker household having a given household size / number of workers combination. The result is the percentage of households that fall into each affordability tier. The percentages are then multiplied by the number of households from Step 3 to arrive at number of households in each affordability tier.

Table C-2 shows the result after completing Steps 5, 6, and 7. The results shown are for the under 30% of AMI category. The methodology is repeated for each of the four income tiers, resulting in a total count of worker households per 100 units.

Summary Findings

Table C-3 indicates the results of the analysis for each of the residential prototypes. The table presents the number of households generated in each affordability category and the total number over 120% of Area Median Income.

The findings in Table C-3 are presented below. The table shows the total demand for affordable housing units associated with 100 market rate units.

[12] Households earning less than $15k per year not reflected consistent with EDD compensation data which is based on full time employment. Workers are assumed to earn at least minimum wage.

New Worker Households by Income Level per 100 Market Rate Units		
	Apartment	*High-Rise Apartment*
Extr. Low (Under 30% AMI)	2.5	2.3
Very Low (30% - 50% AMI)	5.1	4.5
Low (50%-80% AMI)	5.3	4.7
Moderate (80%-120% AMI)	3.3	2.9
Total, Less than 120% AMI	**16.3**	**14.5**
Greater than 120% AMI	2.7	2.4
Total, New Households	**19.0**	**16.9**

Housing demand for new worker households earning less than 120% of AMI totals 16.3 units per 100 market rate units for the Apartment units and 14.5 for the High-Rise Apartment. Housing demand is distributed across the lower income tiers with the greatest number of households in the 30% to 50% and 50% to 80% tiers. The finding that the jobs associated with consumer spending tend to be low-paying jobs where the workers will require housing affordable at the lower income levels is not surprising. As noted above, direct consumer spending results in employment that is concentrated in lower paid occupations including food preparation, administrative, and retail sales.

TABLE C-1
NET NEW HOUSEHOLDS AND OCCUPATION DISTRIBUTION
EMPLOYEE HOUSEHOLDS GENERATED
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

	Prototype 1: **APARTMENT**	Prototype 2: **HIGH-RISE APARTMENT**
Step 1 - Employees [1]	40.2	35.8
Step 2 - Adjust for Changing Industries (20%)	32.1	28.6
Step 3 - Adjust to No. of Households (1.69)[2]	19.0	16.9
Step 4 - Occupation Distribution [3]		
Management Occupations	4.0%	4.0%
Business and Financial Operations	3.6%	3.6%
Computer and Mathematical	1.3%	1.3%
Architecture and Engineering	0.3%	0.3%
Life, Physical, and Social Science	0.3%	0.3%
Community and Social Services	1.6%	1.6%
Legal	0.6%	0.6%
Education, Training, and Library	3.2%	3.2%
Arts, Design, Entertainment, Sports, and Media	1.2%	1.2%
Healthcare Practitioners and Technical	8.9%	8.9%
Healthcare Support	4.9%	4.9%
Protective Service	1.2%	1.2%
Food Preparation and Serving Related	16.6%	16.6%
Building and Grounds Cleaning and Maint.	5.9%	5.9%
Personal Care and Service	5.0%	5.0%
Sales and Related	15.2%	15.2%
Office and Administrative Support	15.9%	15.9%
Farming, Fishing, and Forestry	0.1%	0.1%
Construction and Extraction	0.8%	0.8%
Installation, Maintenance, and Repair	3.8%	3.8%
Production	1.5%	1.5%
Transportation and Material Moving	4.3%	4.3%
Totals	100.0%	100.0%
Management Occupations	0.8	0.7
Business and Financial Operations	0.7	0.6
Computer and Mathematical	0.2	0.2
Architecture and Engineering	0.1	0.0
Life, Physical, and Social Science	0.1	0.0
Community and Social Services	0.3	0.3
Legal	0.1	0.1
Education, Training, and Library	0.6	0.5
Arts, Design, Entertainment, Sports, and Media	0.2	0.2
Healthcare Practitioners and Technical	1.7	1.5
Healthcare Support	0.9	0.8
Protective Service	0.2	0.2
Food Preparation and Serving Related	3.1	2.8
Building and Grounds Cleaning and Maint.	1.1	1.0
Personal Care and Service	0.9	0.8
Sales and Related	2.9	2.6
Office and Administrative Support	3.0	2.7
Farming, Fishing, and Forestry	0.0	0.0
Construction and Extraction	0.1	0.1
Installation, Maintenance, and Repair	0.7	0.6
Production	0.3	0.2
Transportation and Material Moving	0.8	0.7
Totals	19.0	16.9

Notes:

[1] Estimated employment generated by household expenditures within 100 market rate units. Employment estimates based on economic model, IMPLAN.

[2] Adjustment from number of workers to households using average of 1.69 workers per worker household derived from the U.S. Census American Community Survey 2010 to 2012.

[3] See Appendix 2 Tables 1 and 2 for additional information on Major Occupation Categories.

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TABLE C-2

EXTREMELY LOW-INCOME (ELI) EMPLOYEE HOUSEHOLDS[1] GENERATED

RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

Per 100 Market Rate Units

	Prototype 1: **APARTMENT**	Prototype 2: **HIGH-RISE APARTMENT**
Steps 5, 6 & 7 - Extremely Low Income Households (under 30% AMI) within Major Occupation Categories [2]		
Management	-	-
Business and Financial Operations	0.00	0.00
Computer and Mathematical	-	-
Architecture and Engineering	-	-
Life, Physical and Social Science	-	-
Community and Social Services	-	-
Legal	-	-
Education Training and Library	0.03	0.02
Arts, Design, Entertainment, Sports, & Media	-	-
Healthcare Practitioners and Technical	0.00	0.00
Healthcare Support	0.10	0.09
Protective Service	-	-
Food Preparation and Serving Related	0.93	0.82
Building Grounds and Maintenance	0.21	0.19
Personal Care and Service	0.19	0.17
Sales and Related	0.53	0.47
Office and Admin	0.16	0.14
Farm, Fishing, and Forestry	-	-
Construction and Extraction	-	-
Installation Maintenance and Repair	0.01	0.01
Production	-	-
Transportation and Material Moving	0.11	0.09
ELI Households - Major Occupations	2.26	2.01
ELI Households[1] - other occupations	0.29	0.26
Total ELI Households[1]	**2.55**	**2.27**

[1] Includes households earning from zero through 30% of Santa Clara County Area Median Income.

[2] See Appendix 2 Tables 1 and 2 for additional information on Major Occupation Categories.

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TABLE C-3
IMPACT ANALYSIS SUMMARY
EMPLOYEE HOUSEHOLDS GENERATED
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

RESIDENTIAL UNIT DEMAND IMPACTS
PER 100 MARKET RATE UNITS

Number of New Households[1]	Prototype 1: **APARTMENT**	Prototype 2: **HIGH-RISE APARTMENT**
Under 30% Area Median Income	2.5	2.3
30% to 50% Area Median Income	5.1	4.5
50% to 80% Area Median Income	5.3	4.7
80% to 120% Area Median Income	3.3	2.9
Subtotal through 120% of Median	16.3	14.5
Over 120% Area Median Income	2.7	2.4
Total Employee Households	19.0	16.9

Notes

[1] Households of retail, education, healthcare and other workers that serve residents of new market rate units.

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D. MITIGATION COSTS

This section takes the conclusions of the previous section on the number of households in the lower income categories associated with the market rate units and identifies the total cost of assistance required to make housing affordable. This section puts a cost on the units for each income level to produce the "total nexus cost." This is done for each of the prototype units.

A key component of the analysis is the size of the gap between what households can afford and the cost of producing new housing in San Jose, known as the 'affordability gap.' Affordability gaps are calculated for each of the four categories of area median income: Extremely Low (under 30% of median), Very Low (30% to 50% of median), Low (50% to 80%), and Moderate (80% to 120%). The following summarizes the analysis of mitigation cost which is based on the affordability gap to provide units that are affordable to worker households in the lower income tiers. Detailed affordability gap calculations are presented in Tables D-1 and D-2 at the end of this section.

City Assisted Affordable Unit Prototypes

For estimating the affordability gap, there is a need to match a household of each income level with a unit type and size according to governmental regulations and City practices and policies. The analysis assumes that the City will assist households earning between 80% and 120% of Area Median Income with ownership units. The prototype affordable unit should reflect a modest unit consistent with what the City is likely to assist and appropriate for housing the average moderate income worker household, which in the case of San Jose is assumed to be a three person household in a two-bedroom condominium unit (for reference, the average household size in San Jose is 3.1 persons and for Santa Clara County the average is 2.9 based on the 2010-2012 American Community Survey). The market rate sales price for a new two-bedroom, 1,190 square foot condominium unit is estimated at $540,000.

The analysis assumes households earning less than 80% of Area Median Income will be assisted in rental units. The analysis uses a two bedroom affordable rental prototype based on the average number of bedrooms for three recent rental projects that were assisted by the City.

Development Costs

KMA prepared an estimate of total development cost for typical affordable rental units (inclusive of land, all fees and permits, financing and other indirect costs) based on a review of development pro forma for recent affordable rental developments assisted by the City of San Jose utilizing 4% tax credits. KMA concluded that, on average, the new affordable rental units have 2 bedrooms and a total development cost per unit of $400,000.

For ownership units, total development costs (including profit) under normal market conditions, is equal to the market rate sales price. Since there are no new or recent condominium projects

selling in San Jose, KMA estimated the sales price to be $540,000 for a typical two bedroom, 1,190 square foot condominium unit. This estimate was based on data developed through a market survey and included an analysis of the sales prices required to achieve a feasible project based on current development costs (including land, fees and permits, financing, indirect costs, and profit), or, in the case of non-profit developers, all fees and financing costs.

Development Costs		
Income Group	*Unit Tenure / Type*	*Development Cost*
Under 30% AMI	Rental	$400,000
30% to 50% AMI	Rental	$400,000
50% to 80% AMI	Rental	$400,000
80% to 120% AMI	Ownership	$540,000

Affordability Gap

The affordability gap is the difference between the cost of developing a residential unit and the amount a household can afford to pay for the unit.

For rental units, affordability gaps are estimated assuming financing available through Federal 4% tax credits and tax exempt bonds. The 4% tax credits were selected based on their more consistent availability as compared to 9% tax credits, which are highly competitive. While there are additional State and Federal sources of funds to finance affordable housing, it is not assured that these sources will be available in the future and accessing these sources is also highly competitive due to the limited supply. In San Jose, excess funds are not available on an on-going basis and the dissolution of San Jose's redevelopment agency has eliminated what was once a reliable local funding source for affordable housing.

Maximum affordable sales prices for ownership units were calculated consistent with the City's existing guidelines based on 110% of Santa Clara County area median income. For rental units, the maximum housing costs are consistent with the requirements of tax credit financing. A three-person household is assumed to be accommodated in a two-bedroom unit, per local policy and the federal tax credit program. Rents are set to be affordable at 30%, 50%, and 60% of median income for the Extremely Low, Very Low, and Low Income tiers respectively and are based on published rent limits from the California Tax Credit Allocation Committee consistent with the assumption of 4% tax credits as a financing source. Maximum sales prices and monthly rent / housing cost levels are summarized below.

Maximum Affordable Sales Prices and Rent Levels			
Income Group	*Unit Tenure / Type*	*Household Size*	*Maximum Housing Costs*[13]
Under 30% AMI	Rental	3 persons	$684 / Month
30% to 50% AMI	Rental	3 persons	$1,140 / Month
50% to 80% AMI	Rental	3 persons	$1,368 / Month
80% to 120% AMI	Ownership	3 persons	$419,000

Net operating income of the affordable rental units is used to determine the amount of tax exempt bond debt that is supportable to finance construction of the units. To calculate Net Operating Income, gross rent is adjusted for vacancy rates during turnover, and then operating costs are netted out. Operating costs cover management, maintenance, and certain other expenses.

The market value of the 4% tax credits was estimated based on an average of three recent City assisted affordable projects.

For ownership units, the Affordability Gap is the difference between the total development cost and the affordable purchase price determined based on the City's methodology. For rental units, the affordability gap is the difference between total development costs and financing available from tax credits and tax exempt debt.

The resulting affordability gaps are as follows:

Affordability Gap Calculation			
	*Unit Value / Financing Sources**	*Development Cost*	*Affordability Gap*
Affordable Rental Units			
Extr. Low (Under 30% AMI)	$144,000		$256,000
Very Low (30% to 50% AMI)	$214,000	$400,000	$186,000
Low (50% to 80% AMI)	$249,000		$151,000
Affordable Ownership Units			
Moderate (80% to 120% AMI)	$419,000	$540,000	$121,000

*For rental units financing sources including the market value of tax credits and supported tax exempt debt. With for-sale units, the unit value equals the affordable sales price.

Tables D-1 and D-2 present the detailed affordability gap calculations.

[13] For rental units, maximum housing costs are 2013 rent limits published by the California Tax Credit Allocation Committee. For the moderate-income ownership unit, maximum housing costs is the affordable sales price computed consistent with the City's guidelines.

Total Linkage Costs

The last step in the linkage fee analysis marries the findings on the numbers of households in each of the lower income ranges associated with the two prototypes to the affordability gaps, or the costs of delivering housing to them in San Jose.

Table D-3 summarizes the analysis. The Affordability Gaps are drawn from the prior discussion. The "Total Nexus Cost per Market Rate Unit" shows the results of the following calculation: the affordability gap times the number of affordable units demanded per market rate unit. (Demand for affordable units for each of the income ranges is drawn from Table C-3 in the previous section and is adjusted to a per-unit basis from the 100 unit building module.)

The total nexus costs for each of the prototypes are as follows:

Nexus Per Market Rate Unit			
Income Category	*Affordability Gap*	*Apartment*	*High-Rise Apartment*
Extr. Low Income	$256,000	$6,500	$5,800
Very Low Income	$186,000	$9,500	$8,500
Low Income	$151,000	$8,000	$7,100
Moderate	$121,000	$4,000	$3,600
Total Nexus Costs		**$28,000**	**$25,000**

The Total Nexus Costs, or Mitigation Costs, indicated above, may also be expressed on a per square foot level. The square foot area of the prototype unit used throughout the analysis becomes the basis for the calculation. Again, see Appendix 1 for more discussion of the prototypes. The results per square foot are as follows:

Total Nexus Cost Per Sq. Ft.			
Income Category	*Affordability Gap*	*Apartment*	*High-Rise Apartment*
Prototype Size		*990 SF*	*900 SF*
Extr. Low Income	$256,000	$6.57	$6.44
Very Low Income	$186,000	$9.60	$9.44
Low Income	$151,000	$8.08	$7.89
Moderate	$121,000	$4.04	$4.00
Total Nexus Costs		**$28.28**	**$27.78**

These costs express the total linkage or nexus costs for the two prototype developments in the City of San Jose. These total nexus costs represent the ceiling for any requirement placed on market rate development. **The totals are not recommended levels for fees; they represent only the maximums established by this analysis, below which fees or other requirements may be set.**

Recap of Conservative Analysis Assumptions

This nexus analysis incorporates a number of conservative assumptions which, taken together, result in a conservative analysis which likely understates the impacts and the resulting maximum supportable fee levels. The following is an overview of some of the conservative assumptions that have been incorporated into this analysis:

1. *Residential Prototype Rents* – The residential prototype rent levels are conservative estimates and, in the case of the high rise apartment, reflect rents less than required for financial feasibility. To be financially feasible, it is estimated that new high-rise apartment projects would need rents that are more than 20% higher than the conservative estimates used in the nexus analysis. A developer would not build a high-rise apartment project unless rents higher than those assumed in the analysis could be achieved. If higher rent levels were used in the nexus analysis, the resulting maximum supported fee levels would be higher.

2. *Impacts Limited to Santa Clara County* – The analysis includes only those impacts occurring within the County of Santa Clara; however, impacts likely extend to other counties within the Bay Area as well. Additional impacts in other Bay Area counties have not been quantified.

3. *Adjustment for net new workers after accounting for declining industries* – The analysis assumes that 20% of new jobs are filled by existing workers who already have housing locally and who have been displaced from a declining industry. The adjustment factor is conservative because the California Employment Development Department is not projecting declines in <u>any</u> major industry sectors and the adjustment assumes <u>all</u> displaced workers are available to fill new jobs even though some probably exit the workforce entirely by retiring rather than seek a new job in one of the industries serving new residents.

4. *Household Characteristics* – Existing patterns for lower paid worker households, which have more workers per household, on average, are taken as a given in the analysis. In reality, the existing pattern is likely partly a response to the high cost of housing and is inclusive of housing units that would be considered to be overcrowded. The analysis conservatively assumes new worker households continue the pattern of combining more workers into a given household to help offset the cost of housing (the number of workers per household used in the analysis at 1.69 is reflective of this existing pattern). The estimated number of housing units required would increase by an estimated 4% without this conservative assumption.

5. *Tax Credits* – The nexus conclusions are reduced as a result of the assumption that 4% tax credits will be available to offset the cost of delivering affordable units. Without the

availability of tax credit subsidies, the affordability gaps used in the analysis and resulting maximum supported fee levels would be an average of approximately 50% greater.

Taken together, the conservative assumptions described above result in a substantial reduction in the maximum fees supported by the nexus. Without these conservative assumptions it is estimated that maximum supported fees would be approximately $56 per square foot for the apartment, double the nexus conclusion of $28.28 per square foot. For the high-rise apartment, without the conservative analysis assumptions, the maximum supported fee would be $67 per foot, more than double the nexus conclusion of $27.78.

Findings Consistent with Mitigation Fee Act

The foregoing residential nexus analysis has demonstrated that there is a reasonable relationship between the use of the fee, which is to increase the supply of affordable housing in San Jose, and the development of new rental units, which increases the need for affordable housing. (66001 (a) (3))

The analysis has also demonstrated that there is a reasonable relationship between the development of market rate apartments and the need to increase the supply of affordable units. New market rate apartments result in new households in San Jose that consume goods and services, which in turn generate the need for increased affordable housing. To address these new needs, or impacts, the City will use impact fee revenues to increase the supply of affordable housing. (66001 (a) (4))

Furthermore, the nexus analysis has quantified, by size and type of new market rate unit, the increased need for affordable units in relation to the new market rate rental unit being developed, and the cost of mitigating the need, which is the maximum fee level supported by the analysis. The nexus analysis quantifies the number of affordable units needed in relation to the number of new market rate apartments developed. Two different development types were analyzed (stacked flat apartments and high-rise apartments) with the results presented in Table C-3. For example, for every 100 apartments developed, 16.3 incremental affordable units are needed, distributed as follows: 2.5 Extremely Low Income units, 5.1 Very Low Income units, 5.3 Low Income units and 3.3 Moderate Income units. The cost to deliver the affordable units at each of the four affordability levels, when applied to the number of units in need, is the cost to mitigate the impacts of the 100 units. (66001 (b))

The nexus analysis quantifies only the net new needs generated by net new market rate units and households in San Jose. Existing deficiencies with respect to housing conditions in San Jose are not considered nor in any way included in the analysis, nor any increased demand resulting therefrom. (66001 (g)).

This report also references surveys and analyses conducted by the City of San Jose that document that there is no excess supply of affordable housing in the city that new worker households (generated by the consumption of goods and services of net new market rate residential units) could access to meet their needs. To the contrary, there is a severe shortage of affordable housing and new market rate residential development will only increase the shortage unless there is mitigation. The Addendum beginning on page 49 includes a discussion of the assumption that there is no excess supply of affordable housing.

TABLE D-1
AFFORDABILITY GAP CALCULATION: RENTAL UNITS
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

		Extremely Low *30% AMI*	Very Low *50% AMI*	Low *60% AMI*
I. Affordable Rent				
Average Number of Bedrooms		2 Bedrooms	2 Bedrooms	2 Bedrooms
Maximum Rent per CTCAC[1]		$684	$1,140	$1,368
(Less) Utility Allowance		($49)	($49)	($49) [2]
Maximum Monthly Rent per CTCAC		$636	$1,092	$1,320
II. Net Operating Income (NOI)		Per Unit	Per Unit	Per Unit
Gross Scheduled Income (GSI)				
Monthly		$636	$1,092	$1,320
Annual		$7,626	$13,098	$15,834
Other Income		$300	$300	$300
(Less) Vacancy	5%	($396)	($670)	($807)
Effective Gross Income (EGI)		$7,530	$12,728	$15,327
(Less) Operating Expenses [3]		($6,000)	($6,000)	($6,000)
(Less) Property Taxes		exempt [4]	exempt [4]	exempt [4]
Net Operating Income (NOI)		$1,530	$6,728	$9,327
III. Capitalized Value and Affordability Gap				
Net Operating Income (NOI)		$1,530	$6,728	$9,327
Sources of Funds				
Supportable Debt		$21,000	$91,000	$126,000
Market Value of Tax Credits (4%) [5]		$114,000	$114,000	$114,000
Deferred Developer Fee [5]		$8,600	$8,600	$8,600
Total Sources of Funds		$143,600	$213,600	$248,600
(Less) Total Development Costs [5]		($400,000)	($400,000)	($400,000)
Affordability Gap		**($256,400)**	**($186,400)**	**($151,400)**

Notes:
[1] 2013 rent limits.
[2] Utility allowances from Housing Authority of Santa Clara County.
[3] Includes replacement reserves.
[4] Assumes non-profit general partner.
[5] Based on recent City of San Jose affordable projects utilizing 4% tax credits.

TABLE D-2
AFFORDABILITY GAP: MODERATE INCOME FOR SALE UNITS
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

I. City-Assisted Affordable For-Sale Prototype

Based on Market Prototype 3 (Condos)

Building Type	Condos
Density	55 du/ac
Number of Bedrooms	2 BR
Unit Size	1,190 SF
Market Rate Sale Price [1]	$540,000

II. Affordable Sales Price

	2 BR Unit
Household Size	3 Person HH
110% of Median Income	$104,445
Maximum Affordable Sales Price [2]	$419,000

III. Affordability Gap

Market Rate Sale Price	$540,000
(Less) Affordable Price	($419,000)
Affordability Gap	$121,000

[1] Sales price reflects estimated requirement for a financially feasible project based on KMA financial feasibility analysis prepared for the condo prototype.

[2] Calculated using City of San Jose's methodology, assumptions, and consistent with the City of San Jose's guidelines for compliance with the inclusionary housing policy in redevelopment areas.

TABLE D-3
SUPPORTED FEE / NEXUS SUMMARY PER UNIT
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

A. AFFORDABLE UNIT DEMAND PER 100 MARKET RATE UNITS[1]

Household Income Level	Prototype 1: APARTMENT	Prototype 2: HIGH-RISE APARTMENT
Under 30% AMI*	2.5	2.3
30% to 50% AMI	5.1	4.5
50% to 80% AMI	5.3	4.7
80% to 120% AMI	3.3	2.9
Total Affordable Unit Demand Per 100 Market Rate Units	16.3	14.5

B. TOTAL NEXUS COST PER MARKET RATE UNIT[3]

Household Income Level	Affordability Gap (After Tax Credits)[2]	Prototype 1: APARTMENT	Prototype 2: HIGH-RISE APARTMENT
Under 30% AMI*	$256,000	$6,500	$5,800
30% to 50% AMI	$186,000	$9,500	$8,500
50% to 80% AMI	$151,000	$8,000	$7,100
80% to 120% AMI	$121,000	$4,000	$3,600
Total Supported Fee / Nexus		**$28,000**	**$25,000**

C. TOTAL NEXUS COST PER SQUARE FOOT

Household Income Level		Prototype 1: APARTMENT	Prototype 2: HIGH-RISE APARTMENT
	Unit Size (SF)	990 SF	900 SF
Under 30% AMI*		$6.57	$6.44
30% to 50% AMI		$9.60	$9.44
50% to 80% AMI		$8.08	$7.89
80% to 120% AMI		$4.04	$4.00
Total Supported Fee / Nexus		**$28.28**	**$27.78**

* AMI = Area Median Income

[1] From Table C-3.

[2] Household earning less than 80% of Area Median Income are presumed to receive assistance for rental housing with the affordability gap determined after funding from 4% tax credits.

[3] Nexus cost per unit computed by multiplying affordable unit demand per 100 units by the affordability gap and dividing by 100 units.

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E. NEXUS SENSITIVITY WITH IMPACTS LIMITED TO CITY BOUNDARIES

The City of San Jose requested that KMA prepare a sensitivity analysis to quantify the nexus cost or maximum supported fees if only jobs within the City of San Jose are counted in the nexus analysis. This sensitivity analysis was conducted solely for additional information. The conclusions of the nexus analysis are presented in Section D.

Why Impacts Throughout the County are Included

Housing impacts, like most types of impacts, occur irrespective of political boundaries. Like other types of impact analyses, such as traffic, impacts beyond city boundaries are experienced, are relevant, and are important. Accordingly, the nexus analysis quantifies impacts occurring throughout Santa Clara County by counting all the new jobs throughout Santa Clara County generated by expenditures of the new households purchasing or renting housing in the City of San Jose. While most of the jobs counted in the analysis occur within the City of San Jose, some of the jobs are located elsewhere in the County. The City of San Jose regulates land use within its boundaries and is the only jurisdiction positioned to mitigate impacts of new residential development that occurs there, including mitigation of impacts extending beyond its boundaries.

Approach to Isolate Impacts Occurring Within the City of San Jose

To generate the nexus sensitivity including only impacts within the City of San Jose, all the nexus analysis steps are performed in exactly the same way except for the IMPLAN model step described in Section B. To isolate impacts specific to San Jose, the IMPLAN model step was modified to utilize an IMPLAN data set specific to the City of San Jose as opposed to the entire County.

IMPLAN model data is available at the zip code level of detail. Zip codes that correspond to the City boundaries are selected. While some zip codes cross city boundaries, overall, the San Jose zip codes enable a good approximation of the City boundaries[14]. The IMPLAN model was used to calculate the employment impacts occurring only within the selected zip codes corresponding to the City of San Jose boundaries. These City of San Jose employment figures then become the input to the KMA Jobs Housing Nexus Model. All other steps are the same as described in Sections C and D.

[14] The following zip codes were used to approximate the City's boundaries: 95002, 95008, 95013, 95037, 95070, 95110, 95111, 95112, 95113, 95116, 95117, 95118, 95119, 95120, 95121, 95122, 95123, 95124, 95125, 95126, 95127, 95128, 95129, 95130, 95131, 95132, 95133, 95134, 95135, 95136, 95138, 95139, and 95148.

IMPLAN Model Results for City of San Jose

The number of jobs generated in the City by 100 new market rate households is shown in the table below, along with the corresponding number of jobs generated in the County. As shown, the majority of jobs are within City boundaries.

Jobs Generated Per 100 Units, City of San Jose and County-wide		
	Apartment	*High-Rise Apartment*
Annual Household Expenditures, 100 Units [input to IMPLAN]	$6,960,000	$6,200,000
Jobs Generated		
City of San Jose	37.2	33.2
County-wide Total	40.2	35.8

Nexus Sensitivity Results for Impacts Limited to City Boundaries

KMA recalculated the findings presented at the end of Section D using the IMPLAN results that include only jobs within the City of San Jose boundaries. All other assumptions remained the same. The results are presented in the tables below. Compared to the nexus conclusions presented at the end of Section D, limiting the impacts to just the City of San Jose boundaries reduces the findings by about 7%.

Nexus Per Market Rate Unit ***If Impacts Limited to Jobs within City of San Jose Boundaries***			
Income Category	*Affordability Gap*	*Apartment*	*High-Rise Apartment*
Extr. Low Income	$256,000	$6,100	$5,500
Very Low Income	$186,000	$8,900	$8,000
Low Income	$151,000	$7,500	$6,700
Moderate	$121,000	$3,600	$3,300
Total Nexus Costs		**$26,100**	**$23,500**

Total Nexus Cost Per Sq. Ft. ***If Impacts Limited to Jobs within City of San Jose Boundaries***			
Income Category	*Affordability Gap*	*Apartment*	*High-Rise Apartment*
Prototype Size		*990 SF*	*900 SF*
Extr. Low Income	$256,000	$6.16	$6.11
Very Low Income	$186,000	$8.99	$8.89
Low Income	$151,000	$7.58	$7.44
Moderate	$121,000	$3.64	$3.67
Total Nexus Costs		**$26.36**	**$26.11**

ADDENDUM: ADDITIONAL BACKGROUND AND NOTES ON SPECIFIC ASSUMPTIONS

No Excess Supply of Affordable Housing

The City of San Jose has monitored and analyzed housing affordable housing conditions and supply for many decades both to comply with California state law and to provide a context for crafting the City's affordable housing goals, policies and programs. The City has consistently found the needs for affordable housing far in excess of the supply, despite the broad scale and aggressive efforts by the City to address the situation.

The Housing Element is a mandatory component of general plans required by California State law. The Housing Element extensively documents housing conditions, market and governmental constraints to housing affordability, the needs of special population subgroups for housing, as well as presenting guidelines and plans to meet the needs in the future. The most recently adopted Housing Element covers the period from 2007 to 2014; an update for the next cycle covering from 2014 to 2022 was under preparation when this nexus analysis was prepared.

The 2007-2014 Housing Element, which drew data from the 2000 Census, the American Community Survey, as well as the Comprehensive Housing Affordability Strategy (CHAS) prepared by the City, found many conditions indicating the inadequacy of housing affordable to lower and moderate income households. Two key indicators of housing affordability conditions are required to be examined in Housing Elements: overcrowding, defined by the Census as more than 1 person per room, and overpaying, or paying more than 30% of income on housing. Some findings in the 2007-2014 Housing Element are:

- Nearly 50% of all households in the City in 2006 experienced a housing payment burden in excess of the threshold, and in fact over 80% of renter households with incomes in the $20,000 to $34,999 range were paying more than 35% of their income on rent[15].
- Conditions for home ownership were only a little less acute with nearly 46% paying more than 30% on housing costs.
- Overall, over 70% of all households with income under 80% AMI experienced a housing burden, with the conditions most severe in the Extremely Low Income tier at nearly 80%. (U. S. Census 2000)

Based on the huge escalation in housing costs in the decade following the year 2000, there is no reasonable expectation that these figures have improved. The Great Recession may have rolled back housing values and prices, but the foreclosure crises, high unemployment, jobs losses and overall weak economic conditions made conditions far worse.

[15] It is noted that although the City's 2007 – 2014 Housing Element shows that many lower income renter households spend 30% or more of their income on rent, only about 8% of renter households earning $75,000 or above (i.e. the households occupying the prototypical new market rate rental units addressed in this nexus analysis) spend 30% or more of their income on rent based on 2010-2012 American Community Survey data.

Recently, San Jose Department of Housing prepared a memorandum for City Council, pursuant to issues raised at the meeting of June 4, 2013, on the housing impact fee. To address questions raised about the amount of revenue required to meet San Jose's housing needs, the Department assembled information about the housing market failure and the overall needs of the City. A few findings in the memorandum indicating affordable housing supply conditions are:

- "If the unmet current balance from 2007 to 2014 is added to the 2014-22 need in San Jose per the Association of Bay Area Governments, the total need through 2022 is over 37,400 affordable units."
- Waiting list information for affordable units was compiled from several sources. The Housing Authority of Santa Clara County reported over 22,000 individuals waiting list for units in the Housing Choice Voucher program. The Core Companies reports that there is an average wait list of one hundred households for each vacant unit of affordable senior housing. First Community Housing reported that each of its properties has an average of 75-100 households on its waiting lists, in the face of extremely low turnover and vacancy at all properties.
- The unmet housing needs of specific subgroups such as seniors and the homeless are even more dramatic. An estimated 15,300 seniors in Santa Clara County live below the poverty line or nearly 30% of all seniors in San Jose. The 2013 homeless count found 4,770 homeless persons of which 77% were unsheltered at the time of the survey.

In summary, all indicators demonstrate a shortage of affordable housing in San Jose and the complete absence of any excess supply.

Conditions in San Jose are consistent with an underlying assumption in the nexus analysis that there is not an excess supply of affordable housing available to absorb new demand; therefore, new affordable units are needed to mitigate the new affordable housing demand generated by development of new market rate rental units.

Geographic Area of Impact

The analysis quantifies impacts occurring within Santa Clara County. While many of the impacts will occur within the city, some impacts will be experienced elsewhere in Santa Clara County and beyond. The IMPLAN model computes the jobs generated within the County and eliminates those that occur beyond the county boundaries. The KMA Jobs Housing Nexus Model analyzes the income structure of jobs and their worker households, without assumptions as to where the worker households live.

In summary, the nexus analysis quantifies all the jobs impacts occurring within Santa Clara County and related workers households. Job impacts, like most types of impacts, occur irrespective of political boundaries. And like other types of impact analyses, such as traffic, impacts beyond city boundaries are experienced, are relevant, and are important.

For clarification, counting all impacts associated with new housing units does not result in double counting, even if all jurisdictions were to adopt similar programs. The impact of a new housing unit is only counted once, in the jurisdiction in which it occurs. Obviously, within a metropolitan region such as the Bay Area, there is much commuting among jurisdictions, and cities house each other's workers in a very complex web of relationships. The important point is that impacts of residential development are only counted once.

IMPLAN Model

The IMPLAN model is an economic analysis software package now commercially available through the IMPLAN Group, LLC. IMPLAN was originally developed by the U.S. Forest Service, the Federal Emergency Management Agency, and the U.S. Department of the Interior Bureau of Land Management and has been in use since 1979 and refined over time. It has become a widely used tool for analyzing economic impacts for a broad range of applications from major construction projects to natural resource programs.

IMPLAN is based on an input-output accounting of commodity flows within an economy from producers to intermediate and final consumers. The model establishes a matrix of supply chain relationships between industries and also between households and the producers of household goods and services. Assumptions about the portion of inputs or supplies for a given industry likely to be met by local suppliers, and the portion supplied from outside the region or study area are derived internally within the model using data on the industrial structure of the region.

The output or result of the model is generated by tracking changes in purchases for final use (final demand) as they filter through the supply chain. Industries that produce goods and services for final demand or consumption must purchase inputs from other producers, which in turn, purchase goods and services. The model tracks these relationships through the economy to the point where leakages from the region stop the cycle. This allows the user to identify how a change in demand for one industry will affect a list of over 400 other industry sectors. The projected response of an economy to a change in final demand can be viewed in terms of economic output, employment, or income.

Data sets are available for each county and state, so the model can be tailored to the specific economic conditions of the region being analyzed. The analysis utilizes data sets for Santa Clara County. Data is also available at the zip code level and was used for purposes of the sensitivity analysis presented in Section E which addresses impacts occurring within the City boundaries.

Affordability Gap

The use of the affordability gap for establishing a maximum fee supported from the nexus analysis is grounded in the concept that a jurisdiction will be responsible for delivering affordable units to mitigate impacts. The nexus analysis has established that units will be needed at one or more different affordability levels and, per local policy, the type of unit to be delivered depends on the income/affordability level. In San Jose, the City is anticipated to assist in the development of rental units for household incomes less than 80% of median and for moderate income households, ownership units are assumed to be assisted.

The units assisted by the public sector for affordable households are usually small in square foot area (for the number of bedrooms) and modest in finishes and amenities. As a result, in some communities these units are similar in physical configuration to what the market is delivering at market rate; in other communities (particularly very high income communities), they may be smaller and more modest than what the market is delivering. Parking, for example, is usually the minimum permitted by the code. In some communities where there is a wide range in land cost per acre or per unit, it may be assumed that affordable units are built on land parcels in the lower portion of the cost range. KMA tries to develop a total development cost summary that represents the lower half of the average range, but not so low as to be unrealistic.

If the affordability gap is the difference between total development cost and the affordable sales price, the question sometimes arises as to how total development cost is defined. KMA defines total development costs as including land costs, construction costs, site improvements, architectural and engineering, financing and all other indirect costs, and an allowance for an industry profit (non-profit developers receive a development fee instead).

In a healthy and stable economy, when projects are feasible, the sales price is therefore the same as the total development cost inclusive of profit. In some economic cycles sales prices might enable larger than standard profits, as was the case in the 2002 to 2004 period, for example, when sales prices escalated ahead of construction and land costs, and sales prices were achieved that enabled higher than standard profit margins. In other market cycles, such as the recent housing downturn, sales prices were depressed such that they were not high enough to cover total development costs and there is no profit. Projects are not feasible during these periods.

Excess Capacity of Labor Force

In the context of economic downturns such as the recent severe recession, the question is sometimes raised as to whether there is excess capacity in the labor force to the extent that consumption impacts generated by new households will be in part, absorbed by existing jobs and workers, thus resulting in fewer net new jobs. In response, an impact analysis of this nature is a one-time impact requirement to address impacts generated over the life of the project. Recessions are temporary conditions; a healthy economy will return and the impacts will be

experienced. The economic cycle also self-adjusts. Development of new residential units is not likely to occur until conditions improve or there is confidence that improved conditions are imminent. When this occurs, the improved economic condition of the households in the local area will absorb the current underutilized capacity of existing workers, employed and unemployed. By the time new units become occupied, current conditions will have likely improved.

The Burden of Paying for Affordable Housing

San Jose's impact fee program will not place all burden for the creation of affordable housing on new residential construction. The burden of affordable housing is borne by many sectors of the economy and society. A most important source in recent years of funding for affordable housing development comes from the federal government in the form of tax credits (which result in reduced income tax payment by tax credit investors in exchange for equity funding) and which is incorporated in this analysis as an offsetting source of funds prior to arriving at the documented mitigation cost. Additionally there are other federal grant and loan programs administered by the Department of Housing and Urban Development and other federal agencies. The State of California also plays a major role with a number of special financing and funding programs. Much of the state money is funded by voter approved bond measures paid for by all Californians.

Local governments play a large role in affordable housing. In addition, private sector lenders play an important role, some voluntarily and others less so with the requirements of the Community Reinvestment Act. Then there is the non-profit sector, both sponsors and developers that build much of the affordable housing.

In summary, all levels of government and many private parties, for profit and non-profit contribute to supplying affordable housing. Residential developers are not being asked to bear the burden alone any more than they are assumed to be the only source of demand or cause for needing affordable housing in our communities. Based on past experience, the impact fee program will fund only a small percentage of the affordable housing needed in the City of San Jose.

Disclaimers

This report has been prepared using the best and most recent data available at the time of the analysis. Local data and sources were used wherever possible. Major sources include the U.S. Census Bureau: 2010-2012 American Community Survey, California Employment Development Department, the U.S. Internal Revenue Service, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and the IMPLAN model. While we believe all sources utilized are sufficiently sound and accurate for the purposes of this analysis, we cannot guarantee their accuracy. Keyser Marston Associates, Inc. assumes no liability for information from these and other sources.

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APPENDIX 1: MARKET SURVEY

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I. Introduction

One of the underlying components of the Residential Nexus Study is the identification of market rate apartment prototypes that are expected to be developed in the City of San Jose, both today and in the future, and what the market rents for those prototypes will be. These market rents are then used to estimate the incomes of new households that will live in those units and a quantification of the number and types of new jobs that will be created as a result of those households. In this section, Keyser Marston Associates (KMA) describes the rental prototypes utilized for the analysis, summarizes the market data researched, and describes the market rent conclusions drawn therefrom. The market survey for this analysis was conducted in the late summer and early fall of 2013.

II. Residential Prototypes

In collaboration with City staff, two market rate rental prototypes were selected for market pricing[16]. The intent of the selected prototypes is to identify representative development prototypes generally being built by the private marketplace in San Jose, both today and in the future.

Apartment Prototypes	Units	Density	Avg. Unit Size
1) Type V Stacked Flat Apartments	157 units	65 du/acre	990 sq. ft.
2) High-Rise Apartments	300 units	300 du/acre	900 sq. ft.

Source: KMA in collaboration with City of San Jose

More detailed information about the prototypes is included in Appendix 1: Table 1.

III. Market Survey & Rent Estimates

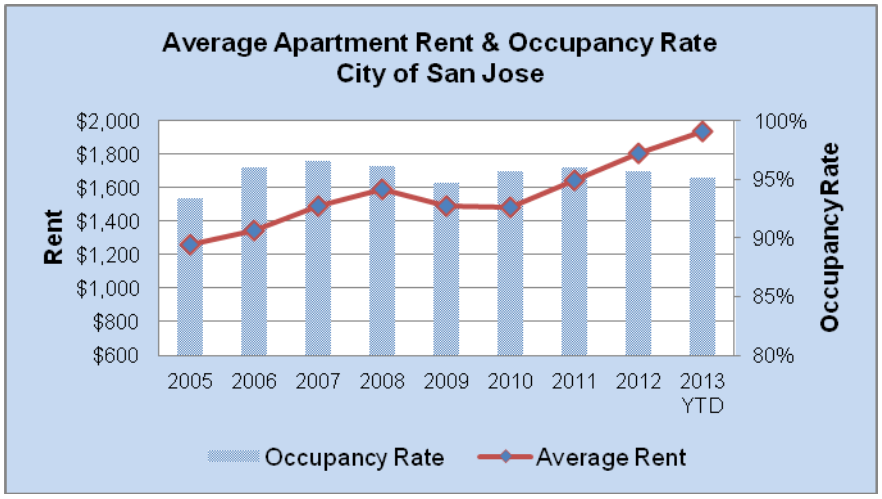
a) Rental Housing Market

As noted previously, the rental housing market in San Jose has enjoyed a period of favorable market conditions that has led to thousands of new apartments being developed in the last few years. Apartment development has been strong due to a combination of rising rents, high occupancy rates, and availability of financing. The strength of the Silicon Valley jobs market has pushed up demand for apartments, particularly new, Class A developments with modern amenities. As shown in the following chart, San Jose apartment rents have risen steadily since

[16] Two additional prototypes are being analyzed by KMA in the financial feasibility analysis – a mixed use apartment development and a parking "wrap" prototype. It is anticipated that the mixed use and wrap prototypes will have similar rents to the Stacked Flat Apartments. The financial feasibility analysis is contained within a separate stand-alone technical report.

2010, to a late-2013 average of $1,989 per unit against an overall occupancy rate of 95.1%. An occupancy rate of ±95% is generally considered healthy in a normal market.

It is likely that the pace of apartment rent growth will slow given the number of new multi-family units throughout Silicon Valley that are currently under construction or in the development pipeline[17]. In a 2013 market report, Cassidy Turley projected that apartment rents will likely plateau in the short term and remain at those levels at least through 2016[18].



Source: RealFacts (August 2013)

Santa Clara County Average Apartment Rents (Q2 2013)		
1.	Palo Alto	$2,856
2.	Cupertino	$2,523
3.	Los Gatos	$2,507
4.	Mountain View	$2,327
5.	Santa Clara	$2,257
6.	Sunnyvale	$2,110
7.	San Jose	$1,989
8.	Milpitas	$1,933
9.	Campbell	$1,819
10.	Gilroy	$1,606

Source: RealFacts (August 2013)

In order to estimate apartment rents for newly built units, KMA conducted a survey of eleven apartment developments built since 2001. Of these properties, the range of rents is as follows (additional detail is contained in Appendix 1: Table 2):

[17] There are thousands of multi-family units in the development pipeline throughout Santa Clara County, however the number of those units that will ultimately be rental vs. for-sale is undetermined.
[18] Cassidy Turley Santa Clara County Apartment Market Report (Q2 2013).

Newer San Jose Apartment Developments (mid-rise)	Average Sq. Ft.	Average Rent	Rent/Sq. Ft.
1-Bedroom	817	$2,183 - $2,414	$2.67 - $2.95
2-Bedroom	1,155	$2,836 - $2,994	$2.46 - $2.59
All Unit Sizes	1,039	$2,651 - $2,834	$2.55 - $2.73

Source: KMA Survey (August 2013)

With regard to the high-rise apartment prototype, there is only one project that provides comparable rent data – the 360 Residences located at 360 South Market. This 23-story building was originally built as for-sale condos in 2010 but was converted to apartments in 2011. Late summer 2013 asking rents for the 360 Residences were in the rough range of $2,400/month for one-bedroom units to $7,800/month for three-bedroom units. As would be expected there are significant rent premiums for units in upper floors of the project.

360 Residences (high-rise)	Average Sq. Ft.	Average Rent	Rent/Sq. Ft.
1-Bedroom	989	$2,441 - $2,473	$2.47 - $2.50
2-Bedroom	1,521	$3,690 - $3,714	$2.43 - $2.44
3-Bedroom (upper floors)	2,771	$7,806 - $7,886	$2.82 - $2.85
All Unit Sizes	1,416	$3,547 - $3,579	$2.51 - $2.53

Source: 360residences.com (August 2013); see Appendix 1: Table 3 for further detail.

It is observed that the high-rise apartment rents at the 360 Residences are generally lower on a per sq. ft. basis than the rents for the mid-rise developments summarized in the prior table. All else being equal, it would be expected that high-rise rents would be higher than mid-rise projects due to the view premiums that can be achieved in high-rise buildings. In this case, the lower rents might be attributable to the fact that the 360 Residences is three years old and has lost some of its new construction premium, as well as the fact that, at this time, living in downtown San Jose may not be as desirable to many renters as compared to other areas, such as North San Jose.

Finally, the high costs of developing a high-rise project are not likely supported by the rent levels at the 360 Residences. Reportedly, the new high-rise project proposed by Essex Property Trust at One South Market will cost $145 million, or $464,700/unit for the 312 proposed units[19]. KMA has not run a financial feasibility analysis of the high-rise prototype; therefore we have taken a conservative approach by utilizing the current market rents from the 360 Residences for purposes of this analysis.

[19] Silicon Valley Business Journal (June 3, 2013)

b) Rental Prototype Rent Estimates

The following are KMA's rent estimates for the two rental prototypes. While rent growth has clearly been significant over the course of the last several years in San Jose, we have not escalated current rents for purposes of this analysis.

Rental Prototype Rent Estimates	Size	Rent/Month	Rent PSF
Prototype 5: Stacked Flat Apartments	990 sf	$2,673	$2.70
Prototype 6: High-Rise Apartments	900 sf	$2,340	$2.60

Appendix 1 Table 1.
Summary of Residential Prototypes
Residential Nexus Analysis
City of San Jose

	Prototype 1 Type V Stacked Flat Apartments	Prototype 2 High-Rise Apartments
Density	65.0 du/acre	300.0 du/acre
Avg Unit sq. ft.	990 sf	900 sf
Avg bedrooms	1.64 BR	1.35 BR
Building Type	4 stories on podium	High-rise
Off Street Parking/unit	1.45 spaces	1.20 spaces
Rent Per Month	$2,673	$2,340
Per Sq. Ft.	$2.70	$2.60

Source: City of San Jose Housing and Planning staff based on a review of recent and proposed residential projects in the City. These programmatic assumptions are consistent with the types of residential projects that the City anticipates being developed in the foreseeable future; rents estimated by KMA (See Appendix 1 Market Survey).

Appendix 1 Table 2
Asking Apartment Rents (Newer Developments)
City of San Jose

	Sq. Ft.	Low Rent	High Rent	Low $/Sf	High $/SF
Crescent Village	*320 Crescent Village Circle (Built 2012)*				
Studio	545	$1,930	$1,980	$3.54	$3.63
Studio	574	$1,950	$2,860	$3.40	$4.98
Studio	665	$2,150	$2,720	$3.23	$4.09
Studio	679	$2,215	$2,415	$3.26	$3.56
Studio	723	$2,195	$2,250	$3.04	$3.11
1 BD/ 1 BA	697	$2,055	$2,155	$2.95	$3.09
1 BD/ 1 BA	744	$2,225	$2,805	$2.99	$3.77
1 BD/ 1 BA	762	$2,300	$2,790	$3.02	$3.66
1 BD/ 1 BA	774	$1,285	$2,850	$1.66	$3.68
1 BD/ 1 BA	810	$2,400	$2,925	$2.96	$3.61
2 BD/ 1 BA	1,011	$2,775	$3,375	$2.74	$3.34
2 BD/ 2 BA	1,020	$2,740	$3,000	$2.69	$2.94
2 BD/ 2 BA	1,038	$2,895	$2,975	$2.79	$2.87
2 BD/ 2 BA	1,086	$2,865	$3,050	$2.64	$2.81
2 BD/ 2 BA	1,091	$2,895	$3,160	$2.65	$2.90
3 BD/ 2 BA	1,334	$3,775	$3,775	$2.83	$2.83
Avalon at Cahill Park	*754 The Alameda (Built 2001)*				
1 BD/ 1 BA	712	$2,245	$2,260	$3.15	$3.17
1 BD/ 1 BA	793	$2,205	$2,215	$2.78	$2.79
1 BD/ 1 BA	793	$2,260	$2,275	$2.85	$2.87
2 BD/ 1 BA	1,185	$2,815	$2,850	$2.38	$2.41
2 BD/ 2 BA	1,185	$2,680	$2,710	$2.26	$2.29
The Verdant	*Tasman & Zanker (Built 2013)*				
1 BD/ 1 BA	681	$2,048	$2,167	$3.01	$3.18
1 BD/ 1 BA	695	$2,102	$2,102	$3.02	$3.02
1 BD/ 1 BA	756	$2,194	$2,473	$2.90	$3.27
1 BD/ 1 BA	764	$2,210	$2,288	$2.89	$2.99
1 BD/ 1 BA	827	$2,385	$2,458	$2.88	$2.97
2 BD/ 1 BA	981	$2,664	$2,783	$2.72	$2.84
2 BD/ 2 BA	1,025	$2,763	$2,875	$2.70	$2.80
2 BD/ 2 BA	1,049	$2,806	$2,866	$2.67	$2.73
2 BD/ 2 BA	1,049	$2,807	$2,867	$2.68	$2.73
2 BD/ 2 BA	1,132	$2,988	$3,106	$2.64	$2.74
3 BD/ 2 BA	1,295	$3,309	$3,473	$2.56	$2.68
3 BD/ 2 BA	1,370	$3,338	$3,473	$2.44	$2.54
Epic	*600 Epic Way (Built 2012)*				
Studio	565	$1,976	$2,185	$3.50	$3.87
1 BD/ 1 BA	739	$2,224	$2,404	$3.01	$3.25
1 BD/ 1 BA	778	$2,286	$2,545	$2.94	$3.27
2 BD/ 1 BA	1,044	$2,644	$3,100	$2.53	$2.97
2 BD/ 2 BA	1,100	$2,644	$3,093	$2.40	$2.81

		Sq. Ft.	Low Rent	High Rent	Low $/Sf	High $/SF
Avalon on the Alameda	*1300 The Alameda*					
1 BD/ 1 BA		735	$2,030	$2,080	$2.76	$2.83
1 BD/ 1 BA		735	$2,010	$2,060	$2.73	$2.80
1 BD/ 1 BA		819	$2,160	$2,160	$2.64	$2.64
2 BD/ 1 BA		1,051	$2,610	$2,875	$2.48	$2.74
2 BD/ 2 BA		1,051	$2,445	$2,470	$2.33	$2.35
2 BD/ 2 BA		1,079	$2,670	$2,670	$2.47	$2.47
2 BD/ 2 BA		1,114	$2,665	$2,825	$2.39	$2.54
Domain	*1 Vista Montana (Built 2013)*					
1 BD/ 1 BA		900	$2,450	$2,450	$2.72	$2.72
2 BD/ 1 BA TH		918	$2,658	$2,658	$2.90	$2.90
1 BD/ 1 BA TH		931	$2,320	$2,320	$2.49	$2.49
2 BD/ 2 BA TH		955	$2,773	$2,773	$2.90	$2.90
1 BD/ 1 BA TH		1,001	$2,345	$2,345	$2.34	$2.34
3 BD/ 2 BA TH		1,426	$3,525	$3,525	$2.47	$2.47
2 BD/ 2 BA		1,428	$3,200	$3,200	$2.24	$2.24
3 BD/ 2 BA TH		1,444	$3,550	$3,550	$2.46	$2.46
Mosaic	*500 Race Street (Built 2012)*					
1 BD/ 1 BA		861	$2,226	$2,371	$2.59	$2.75
1 BD/ 1 BA		904	$2,344	$2,379	$2.59	$2.63
1 BD/ 1 BA		910	$2,463	$2,463	$2.71	$2.71
1 BD/ 1 BA		920	$2,377	$2,477	$2.58	$2.69
2 BD/ 2 BA		1,170	$2,912	$3,192	$2.49	$2.73
2 BD/ 2 BA		1,173	$2,914	$3,054	$2.48	$2.60
2 BD/ 2 BA		1,242	$2,869	$3,049	$2.31	$2.45
2 BD/ 2 BA		1,248	$3,021	$3,096	$2.42	$2.48
2 BD/ 2 BA		1,264	$2,974	$2,974	$2.35	$2.35
2 BD/ 2 BA		1,341	$3,451	$3,606	$2.57	$2.69
2 BD/ 2 BA		1,732	$4,280	$4,395	$2.47	$2.54
3 BD/ 2 BA		1,453	$4,100	$4,215	$2.82	$2.90
3 BD/ 2 BA		1,610	$4,176	$4,176	$2.59	$2.59
Santa Palmia	*150 Palm Valley Boulevard (Built 2005)*					
1 BD/ 1 BA		698	$1,954	$1,954	$2.80	$2.80
1 BD/ 1 BA		806	$2,039	$2,154	$2.53	$2.67
2 BD/ 2 BA		1,033	$2,368	$2,428	$2.29	$2.35
2 BD/ 2 BA		1,073	$2,433	$2,463	$2.27	$2.30
2 BD/ 2 BA		1,138	$2,530	$2,530	$2.22	$2.22
2 BD/ 2 BA		1,228	$2,595	$2,595	$2.11	$2.11
3 BD/ 2 BA		1,358	$2,980	$2,980	$2.19	$2.19
3 BD/ 2 BA		1,610	$3,106	$3,106	$1.93	$1.93
Levare	*3003 Olin Avenue (Built 2003)*					
1 BD/ 1 BA		775	$2,200	$3,150	$2.84	$4.07
1 BD/ 1 BA		878	$2,200	$2,725	$2.51	$3.10
1 BD/ 1 BA		906	$2,200	$2,885	$2.43	$3.18
1 BD/ 1 BA		1,021	$2,200	$3,550	$2.15	$3.48
2 BD/ 2 BA		999	$2,200	$3,490	$2.20	$3.49
2 BD/ 1 BA		1,267	$3,085	$3,543	$2.44	$2.80
2 BD/ 2 BA		1,196	$3,145	$3,250	$2.63	$2.72
3 BD/ 2 BA		1,700	$4,565	$4,965	$2.69	$2.92

	Sq. Ft.	Low Rent	High Rent	Low $/Sf	High $/SF
Elements	*1201 Parkmoor Avenue (Built 2009)*				
1 BD/ 1 BA	861	$2,214	$2,304	$2.57	$2.68
1 BD/ 1 BA	907	$2,218	$2,218	$2.45	$2.45
1 BD/ 1 BA	910	$2,027	$2,087	$2.23	$2.29
1 BD/ 1 BA	920	$2,127	$2,242	$2.31	$2.44
2 BD/ 2 BA	1,170	$2,727	$2,937	$2.33	$2.51
2 BD/ 2 BA	1,173	$2,724	$2,724	$2.32	$2.32
2 BD/ 2 BA	1,341	$3,243	$3,243	$2.42	$2.42
2 BD/ 2 BA	1,242	$2,790	$3,075	$2.25	$2.48
2 BD/ 2 BA	1,248	$2,680	$2,855	$2.15	$2.29
2 BD/ 2 BA	1,264	$2,790	$2,920	$2.21	$2.31
2 BD/ 2 BA	1,594	$3,942	$3,942	$2.47	$2.47
3 BD/ 2 BA	1,453	$3,880	$3,880	$2.67	$2.67
Fruitdale Station	*1590 Southwest Expressway (Built 2008)*				
1 BD/ 1 BA	732	$1,849	$1,849	$2.53	$2.53
1 BD/ 1 BA	788	$2,399	$2,399	$3.04	$3.04
2 BD/ 2 BA	1,036	$2,349	$2,349	$2.27	$2.27
2 BD/ 2 BA	1,060	$2,749	$2,749	$2.59	$2.59
3 BD/ 2 BA	1,356	$3,249	$3,249	$2.40	$2.40
3 BD/ 2 BA	1,628	$3,549	$3,549	$2.18	$2.18
Average All Properties	1,039	$2,651	$2,834	$2.55	$2.73
Average 1-Bedroom	817	$2,183	$2,414	$2.67	$2.95
Average 2-Bedroom	1,155	$2,836	$2,994	$2.46	$2.59

Source: Project websites; ApartmentGuide.com; Forrent.com (August 2013)

Appendix 1 Table 3
Asking Apartment Rents - High-Rise
City of San Jose

360 Residences *360 South Market*

Unit		Sq. Ft.	Low Rent	High Rent	Low $/Sf	High $/SF
203-403	1 BD/ 1 BA	1,048	$2,350	$2,450	$2.24	$2.34
205-405	1 BD/ 1 BA	1,025	$2,280	$2,280	$2.22	$2.22
206-406	1 BD/ 1 BA	1,087	$2,420	$2,470	$2.23	$2.27
207-407	1 BD/ 1 BA	1,017	$2,170	$2,170	$2.13	$2.13
208-408	1 BD/ 1 BA	1,055	$2,275	$2,275	$2.16	$2.16
227-427	1 BD/ 1 BA	834	$2,200	$2,400	$2.64	$2.88
503	1 BD/ 1 BA	906	$2,280	$2,305	$2.52	$2.54
505	1 BD/ 1 BA	816	$2,130	$2,130	$2.61	$2.61
507	1 BD/ 1.5 BA	970	$2,550	$2,550	$2.63	$2.63
526	1 BD/ 2 BA	1,389	$3,401	$3,401	$2.45	$2.45
528	1 BD/ 2 BA	1,376	$3,391	$3,391	$2.46	$2.46
530	1 BD/ 2 BA	1,259	$3,040	$3,040	$2.41	$2.41
604	1 BD/ 1 BA	795	$2,200	$2,200	$2.77	$2.77
605	1 BD/ 1 BA	815	$2,005	$2,005	$2.46	$2.46
606	1 BD/ 1 BA	984	$2,375	$2,375	$2.41	$2.41
607	1 BD/ 1.5 BA	951	$2,650	$2,650	$2.79	$2.79
608	1 BD/ 1 BA	859	$2,095	$2,095	$2.44	$2.44
703-1403	1 BD/ 1 BA	905	$2,395	$2,395	$2.65	$2.65
704-1404	1 BD/ 1 BA	940	$2,550	$2,550	$2.71	$2.71
705-1405	1 BD/ 1.5 BA	983	$2,450	$2,500	$2.49	$2.54
706-1406	1 BD/ 1.5 BA	1,001	$2,505	$2,730	$2.50	$2.73
708-1408	1 BD/ 1 BA	910	$2,330	$2,405	$2.56	$2.64
710-1410	1 BD/ 1 BA	817	$2,105	$2,105	$2.58	$2.58
		989	$2,441	$2,473	$2.47	$2.50
202-402	2 BD/ 2 BA	1,490	$3,000	$3,250	$2.01	$2.18
204-404	2 BD/ 2 BA	1,538	$3,000	$3,200	$1.95	$2.08
209-409	2 BD/ 2 BA	1,345	$2,955	$3,005	$2.20	$2.23
225-425	2 BD/ 2 BA	1,259	$3,150	$3,150	$2.50	$2.50
229-429	2 BD/ 2 BA	1,263	$3,250	$3,250	$2.57	$2.57
501	2 BD/ 2 BA	1,394	$3,582	$3,582	$2.57	$2.57
504	2 BD/ 2 BA	1,359	$3,085	$3,085	$2.27	$2.27
509	2 BD/ 2 BA	1,352	$3,489	$3,489	$2.58	$2.58
518	2 BD/ 2.5 BA	1,930	$5,587	$5,587	$2.89	$2.89
520	2 BD/ 2.5 BA	1,707	$4,157	$4,157	$2.44	$2.44
522	2 BD/ 2.5 BA	1,669	$3,650	$3,650	$2.19	$2.19
524	2 BD/ 2.5 BA	1,644	$4,039	$4,039	$2.46	$2.46
525-625	2 BD/ 2 BA	1,303	$3,401	$3,401	$2.61	$2.61
529-629	2 BD/ 2 BA	1,401	$3,500	$3,500	$2.50	$2.50
601	2 BD/ 2 BA	1,491	$3,749	$3,749	$2.51	$2.51
602	2 BD/ 2 BA	1,339	$3,245	$3,245	$2.42	$2.42
609	2 BD/ 2 BA	1,409	$3,295	$3,295	$2.34	$2.34
610	2 BD/ 2 BA	1,494	$3,225	$3,225	$2.16	$2.16
701-1401	2 BD/ 2 BA	1,491	$3,550	$3,550	$2.38	$2.38
702-1402	2 BD/ 2 BA	1,422	$3,500	$3,500	$2.46	$2.46
709-1409	2 BD/ 2 BA	1,368	$3,075	$3,075	$2.25	$2.25
711-1411	2 BD/ 2 BA	1,453	$3,375	$3,375	$2.32	$2.32
1501-2101	2 BD/ 2.5 BA	1,825	$4,200	$4,300	$2.30	$2.36
1503-2103	2 BD/ 2 BA	1,544	$3,650	$3,650	$2.36	$2.36
1504-2104	2 BD/ 2 BA	1,592	$3,790	$3,790	$2.38	$2.38
1506-2106	2 BD/ 2 BA	1,240	$3,280	$3,280	$2.65	$2.65
1507-2107	2 BD/ 2 BA	1,682	$3,950	$3,950	$2.35	$2.35
1508-2108	2 BD/ 2 BA	1,402	$3,400	$3,500	$2.43	$2.50
2203	2 BD/ 2.5 BA	2,690	$7,870	$7,870	$2.93	$2.93
		1,521	$3,690	$3,714	$2.43	$2.44
1502-2102	3 BD/ 2.5 BA	1,778	$4,417	$4,817	$2.48	$2.71
2201	3 BD/ 3.5 BA	2,898	$8,900	$8,900	$3.07	$3.07
2202	3 BD/ 3.5 BA	2,837	$8,216	$8,216	$2.90	$2.90
2204	3 BD/ 2.5 BA	2,902	$8,500	$8,500	$2.93	$2.93
2302	3 BD/ 3.5 BA	3,440	$8,999	$8,999	$2.62	$2.62
		2,771	$7,806	$7,886	$2.82	$2.85
Average for Available Units [1]		1,416	$3,547	$3,579	$2.51	$2.53

Source: 360residences.com (August 2013)

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APPENDIX 2: SUPPORTING TECHNICAL TABLES

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APPENDIX 2, TABLE 1
WORKER OCCUPATION DISTRIBUTION, 2012
SERVICES TO HOUSEHOLDS EARNING $75-100K
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

Major Occupations (2% or more)	Worker Occupation Distribution[1] Services to Households Earning $75-100k
Management Occupations	*3.8%*
Business and Financial Operations Occupations	*3.5%*
Education, Training, and Library Occupations	*3.1%*
Healthcare Practitioners and Technical Occupations	*8.7%*
Healthcare Support Occupations	*4.7%*
Food Preparation and Serving Related Occupations	*16.1%*
Building and Grounds Cleaning and Maintenance Occupations	*5.8%*
Personal Care and Service Occupations	*4.8%*
Sales and Related Occupations	*14.8%*
Office and Administrative Support Occupations	*15.4%*
Installation, Maintenance, and Repair Occupations	*3.7%*
Transportation and Material Moving Occupations	*4.2%*
All Other Worker Occupations - Services to Households Earning $75-100k	*11.4%*
INDUSTRY TOTAL	100.0%

[1] Distribution of employment by industry is per the IMPLAN model and the distribution of occupational employment within those industries is based on the Bureau of Labor Statistics Occupational Employment Survey.

Source: Bureau of Labor Statistics, Minnesota IMPLAN Group
Keyser Marston Associates, Inc.
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APPENDIX 2, TABLE 2
AVERAGE ANNUAL WORKER COMPENSATION, 2013
SERVICES TO HOUSEHOLDS EARNING $75-100K
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

Occupation [3]	2013 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Resident Services Workers
Page 1 of 4			
Management Occupations			
Chief Executives	$220,000	3.5%	0.1%
General and Operations Managers	$151,500	32.1%	1.2%
Sales Managers	$169,400	5.0%	0.2%
Administrative Services Managers	$109,300	4.0%	0.2%
Financial Managers	$154,200	7.1%	0.3%
Food Service Managers	$59,900	6.5%	0.3%
Medical and Health Services Managers	$134,800	7.8%	0.3%
Property, Real Estate, and Community Association Managers	$80,900	11.7%	0.4%
All other Management Occupations (Avg. All Categories)	$133,800	22.3%	0.9%
Weighted Mean Annual Wage	***$133,800***	**100.0%**	**3.8%**
Business and Financial Operations Occupations			
Claims Adjusters, Examiners, and Investigators	$71,300	3.2%	0.1%
Human Resources Specialists	$81,000	5.0%	0.2%
Labor Relations Specialists	$61,700	3.4%	0.1%
Management Analysts	$109,700	4.8%	0.2%
Training and Development Specialists	$78,900	3.6%	0.1%
Market Research Analysts and Marketing Specialists	$105,800	5.9%	0.2%
Business Operations Specialists, All Other	$85,400	12.2%	0.4%
Accountants and Auditors	$86,900	19.1%	0.7%
Financial Analysts	$107,700	5.4%	0.2%
Personal Financial Advisors	$96,900	6.8%	0.2%
Loan Officers	$90,600	5.7%	0.2%
All Other Business and Financial Operations Occupations (Avg. All Categories)	$89,700	24.9%	0.9%
Weighted Mean Annual Wage	***$89,700***	**100.0%**	**3.5%**
Education, Training, and Library Occupations			
Vocational Education Teachers, Postsecondary	$63,800	4.2%	0.1%
Postsecondary Teachers, All Other	$68,500	3.5%	0.1%
Preschool Teachers, Except Special Education	$40,100	11.0%	0.3%
Elementary School Teachers, Except Special Education	$69,200	7.5%	0.2%
Middle School Teachers, Except Special and Career/Technical Education	$71,000	3.3%	0.1%
Secondary School Teachers, Except Special and Career/Technical Education	$75,900	5.2%	0.2%
Self-Enrichment Education Teachers	$43,800	8.5%	0.3%
Substitute Teachers	$41,100	3.6%	0.1%
Teachers and Instructors, All Other, Except Substitute Teachers	$62,400	6.4%	0.2%
Teacher Assistants	$31,100	13.4%	0.4%
All Other Education, Training, and Library Occupations (Avg. All Categories)	$51,600	33.5%	1.0%
Weighted Mean Annual Wage	***$51,600***	**100.0%**	**3.1%**

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, Minnesota IMPLAN Group
Keyser Marston Associates, Inc.
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APPENDIX 2, TABLE 2
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SERVICES TO HOUSEHOLDS EARNING $75-100K
RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

Occupation [3]	2013 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Resident Services Workers
Page 2 of 4			
Healthcare Practitioners and Technical Occupations			
Pharmacists	$130,800	4.0%	0.3%
Physicians and Surgeons, All Other	$163,200	4.7%	0.4%
Registered Nurses	$124,700	30.0%	2.6%
Dental Hygienists	$98,800	4.1%	0.4%
Pharmacy Technicians	$48,800	5.4%	0.5%
Licensed Practical and Licensed Vocational Nurses	$58,600	8.8%	0.8%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Categories)	$109,100	43.0%	3.7%
Weighted Mean Annual Wage	***$109,100***	**100.0%**	**8.7%**
Healthcare Support Occupations			
Home Health Aides	$23,300	17.6%	0.8%
Nursing Assistants	$35,600	31.3%	1.5%
Massage Therapists	$34,100	3.2%	0.1%
Dental Assistants	$38,500	11.6%	0.5%
Medical Assistants	$38,600	19.3%	0.9%
All Other Healthcare Support Occupations (Avg. All Categories)	$34,000	17.0%	0.8%
Weighted Mean Annual Wage	***$34,000***	**100.0%**	**4.7%**
Food Preparation and Serving Related Occupations			
First-Line Supervisors of Food Preparation and Serving Workers	$36,900	7.0%	1.1%
Cooks, Fast Food	$20,000	4.8%	0.8%
Cooks, Restaurant	$26,400	9.1%	1.5%
Food Preparation Workers	$22,800	6.3%	1.0%
Bartenders	$23,900	4.9%	0.8%
Combined Food Preparation and Serving Workers, Including Fast Food	$21,400	26.4%	4.3%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	$22,000	3.5%	0.6%
Waiters and Waitresses	$22,600	21.1%	3.4%
Dining Room and Cafeteria Attendants and Bartender Helpers	$19,500	3.2%	0.5%
Dishwashers	$20,900	4.4%	0.7%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	$20,800	3.1%	0.5%
All Other Food Preparation and Serving Related Occupations (Avg. All Categories)	$23,400	6.2%	1.0%
Weighted Mean Annual Wage	***$23,400***	**100.0%**	**16.1%**
Building and Grounds Cleaning and Maintenance Occupations			
First-Line Supervisors of Housekeeping and Janitorial Workers	$52,300	3.4%	0.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	$27,800	51.6%	3.0%
Maids and Housekeeping Cleaners	$26,800	12.0%	0.7%
Landscaping and Groundskeeping Workers	$29,800	24.8%	1.4%
All Other Building and Grounds Cleaning and Maintenance Occupations (Avg. All Cat	$29,100	8.2%	0.5%
Weighted Mean Annual Wage	***$29,100***	**100.0%**	**5.8%**

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, Minnesota IMPLAN Group
Keyser Marston Associates, Inc.
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RESIDENTIAL NEXUS ANALYSIS
CITY OF SAN JOSE, CA

Occupation [3]	2013 Avg. Compensation [1]	% of Total Occupation Group [2]	% of Total Resident Services Workers
Page 3 of 4			
Personal Care and Service Occupations			
First-Line Supervisors of Personal Service Workers	$47,900	3.7%	0.2%
Nonfarm Animal Caretakers	$27,900	4.9%	0.2%
Ushers, Lobby Attendants, and Ticket Takers	$21,100	3.0%	0.1%
Amusement and Recreation Attendants	$22,800	6.9%	0.3%
Hairdressers, Hairstylists, and Cosmetologists	$24,600	21.0%	1.0%
Manicurists and Pedicurists	$20,000	3.8%	0.2%
Childcare Workers	$28,600	12.1%	0.6%
Personal Care Aides	$25,800	20.7%	1.0%
Fitness Trainers and Aerobics Instructors	$54,600	5.5%	0.3%
Recreation Workers	$27,400	5.0%	0.2%
All Other Personal Care and Service Occupations (Avg. All Categories)	$28,200	13.2%	0.6%
Weighted Mean Annual Wage	***$28,200***	**100.0%**	**4.8%**
Sales and Related Occupations			
First-Line Supervisors of Retail Sales Workers	$46,000	10.1%	1.5%
Cashiers	$25,800	26.4%	3.9%
Counter and Rental Clerks	$32,900	4.5%	0.7%
Retail Salespersons	$26,700	38.5%	5.7%
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientif	$72,900	3.7%	0.5%
Real Estate Sales Agents	$79,200	3.4%	0.5%
All Other Sales and Related Occupations (Avg. All Categories)	$33,000	13.4%	2.0%
Weighted Mean Annual Wage	***$33,000***	**100.0%**	**14.8%**
Office and Administrative Support Occupations			
First-Line Supervisors of Office and Administrative Support Workers	$65,600	6.7%	1.0%
Billing and Posting Clerks	$48,100	3.1%	0.5%
Bookkeeping, Accounting, and Auditing Clerks	$47,400	7.4%	1.1%
Customer Service Representatives	$48,100	9.2%	1.4%
Receptionists and Information Clerks	$34,600	8.2%	1.3%
Stock Clerks and Order Fillers	$27,400	11.4%	1.8%
Executive Secretaries and Executive Administrative Assistants	$65,400	3.4%	0.5%
Medical Secretaries	$42,900	5.1%	0.8%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	$42,800	10.0%	1.5%
Office Clerks, General	$38,900	13.6%	2.1%
All Other Office and Administrative Support Occupations (Avg. All Categories)	$43,200	22.1%	3.4%
Weighted Mean Annual Wage	***$43,200***	**100.0%**	**15.4%**
Installation, Maintenance, and Repair Occupations			
First-Line Supervisors of Mechanics, Installers, and Repairers	$75,400	7.7%	0.3%
Telecommunications Equipment Installers and Repairers, Except Line Installers	$64,200	3.9%	0.1%
Automotive Body and Related Repairers	$46,800	5.6%	0.2%
Automotive Service Technicians and Mechanics	$49,300	20.1%	0.7%
Maintenance and Repair Workers, General	$48,900	35.3%	1.3%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories)	$52,500	27.4%	1.0%
Weighted Mean Annual Wage	***$52,500***	**100.0%**	**3.7%**

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, Minnesota IMPLAN Group
Keyser Marston Associates, Inc.
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Page 4 of 4			
Transportation and Material Moving Occupations			
Bus Drivers, School or Special Client	$36,900	4.3%	0.2%
Driver/Sales Workers	$34,900	9.7%	0.4%
Heavy and Tractor-Trailer Truck Drivers	$45,100	10.8%	0.4%
Light Truck or Delivery Services Drivers	$36,900	11.7%	0.5%
Parking Lot Attendants	$25,200	5.0%	0.2%
Automotive and Watercraft Service Attendants	$27,200	3.2%	0.1%
Industrial Truck and Tractor Operators	$38,000	3.0%	0.1%
Cleaners of Vehicles and Equipment	$26,900	8.0%	0.3%
Laborers and Freight, Stock, and Material Movers, Hand	$32,000	22.8%	0.9%
Packers and Packagers, Hand	$22,800	7.6%	0.3%
All Other Transportation and Material Moving Occupations (Avg. All Categories)	$33,200	13.9%	0.6%
Weighted Mean Annual Wage	***$33,200***	**100.0%**	**4.2%**
			88.6%

[1] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[2] Occupation percentages are based on the 2012 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2012 Occupational Employment Survey data for Santa Clara County, updated by the California Employment Development Department to 2013 wage levels.

[3] Including occupations representing 3% or more of the major occupation group.

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, Minnesota IMPLAN Group
Keyser Marston Associates, Inc.
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