

CITY OF CUPERTINO

# Residential Below Market Rate Housing Nexus Analysis



**CUPERTINO**

*Prepared by Keyser Marston Associates, Inc.  
April 2015*



# KEYSER MARSTON ASSOCIATES

**Residential Below Market Rate  
Housing Nexus Analysis  
Cupertino, California**

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## I. INTRODUCTION AND OVERVIEW

This report documents and quantifies the linkages between new market-rate residential development in the City of Cupertino and the demand for additional affordable housing. The analysis, which demonstrates ongoing support for an affordable housing requirement, has been prepared by Keyser Marston Associates, Inc. (KMA) for the City of Cupertino in accordance with a contractual agreement.

### Program Overview

In May, 2014, the City Council reviewed and authorized the City's 2014-2015 Work Program in which the Housing Mitigation Nexus Study was listed. The update to the Housing Mitigation fee is also a Housing Element strategy to address affordable housing needs in the community (Policy HE-4 Housing Mitigation – Strategy 8 – Below Market-Rate (BMR) Affordable Housing Fund (AHF)). As a result, KMA was contracted to prepare a completely updated residential nexus analysis in support of updating fees. This report presents the methodology and findings of that analysis. Concurrently, KMA prepared a Non-Residential Jobs-Housing Nexus Analysis, which is presented in a separate report.

Since its inception in 1993, the City of Cupertino's Housing Mitigation Program has been a key component in providing the City with an inventory of safe, decent and affordable housing. Housing Mitigation Program funds have been used to assist with the new construction, acquisition and rehabilitation of affordable housing.

The City's current program applies to all new residential developments of one unit or greater. Ownership developments between one and six units may either pay an impact fee or provide one median-income Below Market Rate (BMR) unit onsite. Ownership developments of 7 units or greater are required to set aside 15% of the units within the development as BMR units. Half of the onsite BMR units must be made available to median-income households (households earning between 80 and 100% of area median income (AMI)) and half to moderate-income households (households earning 100-120% of AMI).

For rental units, the City used to require that developers set aside 15% of units as BMR units, and the affordability levels were set at 40% at low income (50-80% AMI) and 60% at very low income (less than 50% AMI). However, since the Court of Appeal's *Palmer* decision, cities have been precluded from requiring affordable units within rental projects unless the developer received financial assistance or a regulatory incentive from the City. As a result, all new rental developments in Cupertino are currently required to pay the Housing Mitigation Program impact fee.

The current Housing Mitigation Program fee is \$3 per square foot for both ownership and rental projects. This analysis will enable the City to update its Housing Mitigation Fee Program.

## **The Nexus Concept**

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

## **Use of This Study**

The nexus study has been prepared for the limited purpose of determining nexus support for the City of Cupertino’s Housing Mitigation Program affecting all new residential construction. We caution against the use of this study, or any impact study for that matter, for purposes beyond the intended use. The nexus analysis presented in this report is an impact analysis only and the nexus amounts are not recommended fee levels.

## **Methodology and Models Used**

To determine the impact of new market-rate housing on the need for affordable housing, this nexus analysis starts with the sales price or rental rate of a new market rate residential unit, and moves through a series of linkages to the gross income of the household that purchased or 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 doing those jobs, the household income of the workers and, ultimately, the affordability level of the housing needed by the worker households and the cost of that housing. The steps of the analysis from household income available for expenditures to jobs generated were performed using the IMPLAN (IMPact Analysis for PLANning) 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 output of the IMPLAN model (the number of jobs in various industries generated by household spending) is the input into KMA’s own jobs housing nexus model. The KMA jobs housing nexus model was developed over 25 years ago and continually used and updated since then. The jobs housing nexus model calculates the income of worker households and sorts them by affordability level.

To illustrate the linkages by looking at a simplified example, we can take an average household that buys a house at a certain price. From that price, we estimate the gross income of the household (from mortgage rates and lending practices) and 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 Cupertino. Local subsidies are required if their housing needs are to be met in Cupertino.

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 that 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. The impacts estimated by IMPLAN are entirely attributable to the new household spending.

### **Net New Underlying Assumption**

An underlying assumption of the analysis is that households that purchase or rent new units represent net new households in Cupertino. If purchasers or renters 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 Cupertino 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.

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 Cupertino and the impacts generated by their consumption expenditures, it quantifies net new demand 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.

### **Discount for Changing Industries**

The Silicon Valley economy, like that of the United States 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.

The nexus analysis 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% downward 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 that the California Employment Development Department (EDD) 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 rather than seek a new job.

The 20% downward adjustment used for purposes of the analysis was derived from EDD historic monthly employment data by industry over the past 10 years. 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, such as the tech sector, hospitality, health care and education, 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%<sup>1</sup>. 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 who already lives locally.

## **Geographic Area of Impact**

The analysis quantifies impacts occurring within Santa Clara County. While much of the impact will occur within the City of Cupertino, some impacts will be experienced elsewhere in the County and beyond. The IMPLAN model computes the jobs generated within the County and excludes 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 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.

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<sup>1</sup> 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%).

## **Market Rate Residential Project Types**

Six prototypical residential project types were selected for analysis in this nexus study. The prototypes were intended to represent the range of product types currently being built in Cupertino or which are expected in the future including:

- Larger Single Family Detached (SFD)
- Smaller Single Family Detached
- Small Lot Single Family / Townhomes
- Condominiums
- Lower Density Apartments
- Higher Density Apartments

(A description of the prototypes can be found in Section II.A, with a summary presented on Table A-1.)

## **Affordability Tiers**

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

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

## **Organization of Report**

The nexus analysis is presented in Part II of the report, in the following four sections:

- Section A. presents information regarding the prototypical new market rate residential units and the estimated household income of purchases or 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. describes the impact of employment growth associated with residential development on the need for new affordable housing units in each of the income categories.
- Section D. quantifies the nexus cost, or the cost of mitigating the impact, based on the cost of delivering affordable units to new worker households in each of the lower income categories.



## **II. NEXUS ANALYSIS**

### **A. MARKET RATE UNITS AND HOUSEHOLD INCOME**

This section describes the prototypical market rate residential units and the income of the purchaser and renter households. Market rate prototypes are representative of new residential units currently being built in Cupertino or that are likely to be built in Cupertino over the next several years. Household income is estimated based on the amount necessary for the mortgage or 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 additional 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 A.

#### **Recent Housing Market Activity and Prototypical Units**

KMA identified six residential prototypes in consultation with City staff (Table A-1); these prototypes are representative of the types of development that the City of Cupertino expects to see over the coming years. They are based on projects recently built or in the development pipeline in Cupertino. KMA then undertook a market survey of residential projects. There are no new ownership projects currently being marketed in Cupertino and limited new rental units. KMA collected market sales data on the most recent new home sales in the City. As another indicator of market values, KMA obtained data on sales of existing but newer homes in Cupertino, focusing on units built since 2005. KMA also assembled data on asking rents in newer apartment buildings in Cupertino, and new higher density apartment buildings in surrounding communities because this prototype has not yet been built in Cupertino.

The results of the market survey and the selection of the six residential prototypes are summarized in the table on the following page; more detail can be found in Table A-1 at the end of this section. The main objective of the survey was to establish current market sales prices or rents, per unit and per square foot, for the various residential project types in Cupertino.

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

In summary, the residential prototypes analyzed in the nexus analysis are as follows in Exhibit 1:

<b>Exhibit 1: Prototypical Residential Units</b>						
	<i>Larger Single Family</i>	<i>Smaller Single Family</i>	<i>Small Lot SF / Townhome</i>	<i>Condo-minium</i>	<i>Lower Density Apartment</i>	<i>Higher Density Apartment</i>
Avg. Unit Size*	3,850 SF	2,800 SF	1,850 SF	1,500 SF	1,250 SF	1,250 SF
Avg. No. of Bedrooms	5 BR	4 BR	3 BR	2.5 BR	2 BR	2 BR
Avg. Sales Price / Monthly Rent	\$2,600,000	\$1,750,000	\$1,110,000	\$800,000	\$3,250	\$4,000

\*Excludes garage space for single family and townhome units; gross unit size for condominiums and apartments.

Source: KMA market study; see Appendix A.

## **Income of Housing Unit Purchaser or Renter**

After the residential prototypes are established, the next step is to determine the income of the households purchasing or renting the prototypical units.

### *Ownership Units*

For ownership units, a set of mortgage underwriting terms are used to calculate the income necessary to purchase the unit. The terms for the purchase of residential units used in the analysis are slightly less favorable than what can be achieved at the current time since current terms are not likely to endure. The terms vary by the sales price of the units. KMA reviewed DataQuick's down payment data for recently sold homes in Cupertino. The data suggest that the larger lot single family homes have a median down payment of 35%, smaller single family homes have a median down payment of 30% and the small lot or attached homes have a median down payment of 25%.

The interest rate of 5.1% for conforming loans reflects an estimate of the longer term average based on the experience over the past ten years.<sup>2</sup> For loans larger than the conforming loan limit (\$625,000 in Santa Clara County), an additional 0.25% interest rate is assumed. Tables A-2 through A-5 at the end of this section provide the details.

All ownership product types include an estimate of total housing expense, which includes the primary mortgage principal and interest payment, homeowners' insurance, homeowner association dues, and property taxes, for purposes of determining mortgage eligibility<sup>3</sup>. The analysis estimates that the total housing expense is 35% of the gross household income. This

<sup>2</sup> Conforming loans are those that meet the guidelines for purchase by Fannie Mae and Freddie Mac. The interest rate is based on Freddie Mac Primary Mortgage Market Survey weekly average rates for 30 year fixed rate mortgages during the period from 2004 through 2014 in the West Region.

<sup>3</sup> Housing expenses are combined with other debt payments such as credit cards and auto loans to compute a Debt To Income (DTI) ratio which is a key criteria used for determining mortgage eligibility.

reflects the average for new purchase loans originated in the local area<sup>4</sup> and is consistent with criteria used by lenders to determine mortgage eligibility.<sup>5</sup>

### *Apartment 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 higher than the average for Cupertino reported by the Census of 22%.<sup>6</sup> While above the average from the Census, the 30% factor was referenced from the California Health and Safety Code Section 50052.5 standard for relating income to affordable rent levels.<sup>7</sup> Use of 30% produces a lower estimate of required gross household income and lower nexus impacts than if the Census average of 22% were used; therefore, this represents a conservative approach. The resulting relationship is that annual household income is 3.3 times annual rent.

The estimated required gross household incomes of the purchasers or renters of the prototype units are calculated in Tables A-2 through A-7 at the end of this section, and summarized in Exhibit 2.

<b>Exhibit 2: Household Income</b>						
	<i>Larger Single Family</i>	<i>Smaller Single Family</i>	<i>Small Lot SF / Townhome</i>	<i>Condominium</i>	<i>Lower Density Apartment</i>	<i>Higher Density Apartment</i>
Gross Household Income	\$445,000	\$300,000	\$208,000	\$154,000	\$130,000	\$160,000

Source: KMA; see Tables A-2 through A-7.

### **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

<sup>4</sup> New purchase loans in the local area have an average debt to income ratio of 35.4% based on data from Freddie Mac on its portfolio of mortgages within zip codes starting with 95 (includes Cupertino) and specific to principal residence purchase loans originated during the 4th quarter of 2012, the most recent period available at the time the data was accessed. Debt to income ratio includes other forms of debt such as student loans, credit cards, and auto loans, which suggests that a ratio including only housing expenses would be less than 35%. Applying a ratio below 35% in the analysis would have produced a higher estimate of gross household income and higher resulting nexus findings; therefore, application of a 35% ratio represents a conservative assumption for purposes of the nexus analysis.

<sup>5</sup> Fannie Mae mortgage underwriting eligibility criteria establishes a debt to income threshold of 36% above which tighter credit standards apply. A debt to income ratio of up to 45% is permitted for borrowers meeting specified credit criteria; however, most households have other forms of debt such as credit cards, student loans, and auto loans that would be considered as part of this ratio.

<sup>6</sup> 2011-2013 American Community Survey.

<sup>7</sup> Health and Safety Code Section 50052.5 defines affordable rent levels based on 30% of income.

handled internally within the model as part of the analysis of expenditures. Payroll deduction for medical benefits and pre-tax medical expenditures are also handled internally within the model. Housing costs are addressed separately, as described below, and so are not deducted as part of this adjustment step. Table A-8 at the end of this section shows the calculation of income available for expenditures.

Income available for expenditures is estimated to range from approximately 52% of gross income in the case of the larger single family prototype to 67% for the condominium prototype. The estimates are based on a review of data from the Internal Revenue Service (IRS) and California Franchise Tax Board tax tables, along with additional data on savings rate by income level. Per the IRS, households earning between \$250,000 and \$500,000 per year, or the residents of the prototypical larger lot single family units and the smaller single family units, who itemize deductions on their returns will pay an average of 21.2% of gross income for federal taxes. Households earning between \$200,000 and \$250,000 per year, or the residents of the small-lot single family/townhome units, who itemize deductions on their returns will pay an average of 16.8% of gross income for federal taxes. Residents of the condominium prototype fall into the \$100,000 to \$200,000 income range where households who itemize deductions pay an average of 12.3% of their gross income toward federal income taxes. Residents of the two rental prototypes fall into the \$100,000 to \$200,000 income range as well; households in this category who do not itemize deductions pay an average of 14.1% of their gross income to federal income taxes. State taxes are estimated to average 5% to 7% of gross income based on tax rates per the California Franchise Tax Board. The employee share of 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 401 K type programs as well as non-retirement household savings and investments. Debt repayment includes auto loans, credit cards, and all other non-mortgage debt. Overall, 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.

Data suggests that savings rate varies by income, however, with high income households saving a larger percentage of their gross income than the average. Data published by the National Bureau of Economic Research indicate that the average savings rate for households varies by income percentile, with households in the top 10% of income nationwide saving, on average, 20% of their income annually (the average for 2000-2012)<sup>8</sup>. Due to the high cost of housing and other living expenses in Silicon Valley, however, it is likely that savings rates do not approach the national average until households are at a much higher income level. For the purposes of the nexus analysis, therefore, we assume that households purchasing the larger

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<sup>8</sup> Emmanuel Saez and Gabriel Zucman. "Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data." National Bureau of Economic Research, Working Paper 20625. October 2014.

single family unit are saving 12% of their \$445,000 in gross income and the purchasers of the smaller single family unit are saving 10% of their \$300,000 in gross income.<sup>9</sup> The households purchasing the less expensive ownership prototypes or renting the two rental prototypes are assumed to have an average level of savings, at 8%.

Housing costs are not deducted from gross income prior to running the IMPLAN model. This 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 that other expenditures such as retail or restaurants do, but there is some limited maintenance and property management employment generated.

After deducting income taxes, Social Security, Medicare, savings, and repayment of debt, the estimated income available for expenditures ranges from 52% for the Larger Single Family prototype to 67% for the condominium prototype. The typical household renting the two rental prototypes would have an estimated 65% of income available for expenditures. These are the factors used to adjust from gross income to the income available for expenditures, which is the input for the IMPLAN model. As indicated above, other forms of taxation such as property tax are handled internally within the IMPLAN model.

Estimates of household income available for expenditures are presented in Exhibit 3; more detail can be found on Table A-8 at the end of this section.

<b>Exhibit 3: Income Available for Expenditures</b>						
	<i>Larger Single Family</i>	<i>Smaller Single Family</i>	<i>Small Lot SF / Townhome</i>	<i>Condo-minium</i>	<i>Lower Density Apartment</i>	<i>Higher Density Apartment</i>
Gross Household Income	\$445,000	\$300,000	\$208,000	\$154,000	\$130,000	\$160,000
Percent Income available for Expenditures	52%	55%	62%	67%	65%	65%
Household Income Available for Expenditures	\$231,000	\$165,000	\$129,000	\$103,000	\$85,000	\$104,000

Source: KMA; see Table A-8

The nexus analysis is conducted on 100-unit building modules for ease of presentation, and to avoid awkward fractions. Tables A-9 and A-10 summarize the conclusions of this section and calculate the household income for the 100-unit building modules. This is the input into the IMPLAN model.

<sup>9</sup> The nexus methodology calculates the minimum household income required to purchase the market rate units, by assuming households spend 35% of income on housing. These households, therefore, are not likely to be saving 20% of their gross income in addition to their housing expense. However, they are still high income households and therefore are likely to be saving more than the national average of 8%. The higher savings rates of 10% and 12% were selected to make the analysis more conservative than assuming an 8% savings rate.

**TABLE A-1**  
**Residential Prototypes with Market Sales Prices/Rents**  
**Residential Nexus Analysis**  
**City of Cupertino, CA**

Prototype	Larger Single Family	Smaller Single Family	Small Lot Single Family / Townhome	Condominium	Lower Density Rental Apartments	Higher Density Rental Apartments
<b>Examples</b>	20840 McClellan Road: Subdivision Approved 10114 Crescent Court: 2007 Bollinger Road: 2013	Blaney Subdivision: 2010 Charsan Lane: 2012	Foothill Blvd Live/Work: approved Murano Circle: 2005 Las Palmas: 2010 Stevens Canyon: 2007	Metropolitan: 2007 Villagio: 2006 Oak Park Village: 2008 Nineteen800: 2014	The Markham (formerly Villa Serra) Biltmore Adjacency: 2014 Main Street: Approved N. Foothill Blvd: Under Review	Monte Bello: 2003 (sold as condos) The Hamptons: see note
<b>Typical Building Type</b>	2-story homes	2-story homes	2-3 story homes	3 to 4-story on a podium	4-story on a podium	Up to 8-story on a podium
<b>Typical Net Unit Size (SF: excl. garage)<sup>1</sup></b>	3,850 SF	2,800 SF	1,850 SF	1,200 SF	1,000 SF	1,000 SF
<b>Typical Gross Unit Size (SF: incl. garage)<sup>1</sup></b>	4,270 SF	3,220 SF	2,270 SF	1,500 SF	1,250 SF	1,250 SF
<b>Typical Number of Bedrooms</b>	5 BR	4 BR	3 BR	2 and 3 BR units	1, 2 and 3 BR units	1, 2 and 3 BR units
<b>Parking Requirement</b>	4 per unit (2 car garage)	4 per unit (2 car garage)	2.8 per unit (2 car garage)	2 per unit (1 in garage)	2 per unit (1 in garage)	2 per unit (1 in garage)
<b>Typical Density (Du/acre)</b>	Lot Size: 9,500 sf 1 - 5 dua	Lot Size: 7,100 sf 4 - 6 dua	10 - 20 dua	25 - 35 dua	25 - 35 dua	35 - 110 dua
<b>Estimated Market Sales Price/ Rent per square foot</b>	\$2,600,000 \$675	\$1,750,000 \$625	\$1,110,000 \$600	\$800,000 \$667	\$3,250 \$3.25	\$4,000 \$4.00
<b>Notes</b>	Typically Located West of Highway 85				Rent data from Nineteen800 was included in analysis.	The Hamptons is a proposed Housing Element Site. The EIR was studied at up to 110 dua for this site.

1. Single family homes (SF) presented with and without garages (420 sf). Condominiums and apartments are presented as net rentable and gross building area, assuming an 80% building efficiency.

**TABLE A-2  
 PROTOTYPE 1: LARGER SINGLE FAMILY  
 SALES PRICE TO INCOME RATIO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF CUPERTINO, CA**

		<b>Prototype 1 Larger Single Family</b>
Sales Price	3,850 SF <sup>1</sup>	\$2,600,000 <sup>1</sup>
<b>Mortgage Payment</b>		
Downpayment @ 30%	30% <sup>2</sup>	\$780,000
Loan Amount		\$1,820,000
Interest Rate		5.35% <sup>3</sup>
Term of Mortgage		30 years
Annual Mortgage Payment	\$10,200 /month	\$122,000
<b>Other Costs</b>		
Property Taxes	1.25% of sales price <sup>4</sup>	\$32,500
HOA Dues	\$0 per month <sup>5</sup>	\$0
Homeowner Insurance	0.06% of sales price <sup>6</sup>	\$1,400
<b>Total Annual Housing Cost</b>	<b>\$13,000 /month</b>	<b>\$155,900</b>
<b>% of Income Spent on Hsg</b>		<b>35% <sup>7</sup></b>
<b>Annual Household Income Required</b>		<b>\$445,000</b>
<b>Sales Price to Income Ratio</b>		<b>5.8</b>

Notes

- (1) Based on Market Survey. Excludes garage space. Assumes location west of Highway 85.
- (2) Based on median down payment for larger single family homes built since 2005 and sold since 2012. Source: Dataquick.
- (3) Average mortgage interest rate for prior 10 years derived from Freddie Mac Primary Mortgage Market Survey, West Region. Includes a 0.25% premium to reflect the non-conforming nature of the loan (jumbo loan). Based on weekly average rates for 30 year fixed rate mortgages during the period from 10/2004 through 9/2014.
- (4) Property tax rate is inclusive of ad valorem taxes plus estimated fixed charges and assessments.
- (5) No HOA dues.
- (6) Estimated from quotes obtained from Progressive Insurance.
- (7) Based on Freddie Mac data on conforming mortgages originated in zip codes beginning with 95. The average debt to income ratio of 35% includes both housing expenses and other debt like auto loans and credit cards. Were other debt excluded, the ratio would likely be lower than 35%. Using a ratio less than 35% would have increased the supported maximum fee levels from those reflected in the analysis; therefore, 35% represents a conservative estimate.

**TABLE A-3  
 PROTOTYPE 2: SMALLER SINGLE FAMILY  
 SALES PRICE TO INCOME RATIO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF CUPERTINO, CA**

		<b>Prototype 2 Smaller Single Family</b>
Sales Price	2,800 SF <sup>1</sup>	\$1,750,000 <sup>1</sup>
<b>Mortgage Payment</b>		
Downpayment @ 30%	30% <sup>2</sup>	\$525,000
Loan Amount		\$1,225,000
Interest Rate		5.35% <sup>3</sup>
Term of Mortgage		30 years
Annual Mortgage Payment	\$6,800 /month	\$82,100
<b>Other Costs</b>		
Property Taxes	1.25% of sales price <sup>4</sup>	\$21,900
HOA Dues	\$0 per month <sup>5</sup>	\$0
Homeowner Insurance	0.06% of sales price <sup>6</sup>	\$1,000
<b>Total Annual Housing Cost</b>	<b>\$8,800 /month</b>	<b>\$105,000</b>
<b>% of Income Spent on Hsg</b>		<b>35% <sup>7</sup></b>
<b>Annual Household Income Required</b>		<b>\$300,000</b>
<b>Sales Price to Income Ratio</b>		<b>5.8</b>

Notes

(1) Based on Market Survey. Excludes garage space.

(2) Based on median down payment for smaller single family homes built since 2005 and sold since 2012. Source: Dataquick.

(3) Average mortgage interest rate for prior 10 years derived from Freddie Mac Primary Mortgage Market Survey, West Region. Includes a 0.25% premium to reflect the non-conforming nature of the loan (jumbo loan). Based on weekly average rates for 30 year fixed rate mortgages during the period from 10/2004 through 9/2014.

(4) Property tax rate is inclusive of ad valorem taxes plus estimated fixed charges and assessments.

(5) No HOA dues.

(6) Estimated from quotes obtained from Progressive Insurance.

(7) Based on Freddie Mac data on conforming mortgages originated in zip codes beginning with 95. The average debt to income ratio of 35% includes both housing expenses and other debt like auto loans and credit cards. Were other debt excluded, the ratio would likely be lower than 35%. Using a ratio less than 35% would have increased the supported maximum fee levels from those reflected in the analysis; therefore, 35% represents a conservative estimate.



**TABLE A-4**  
**PROTOTYPE 3: SMALL-LOT SF / TOWNHOME**  
**SALES PRICE TO INCOME RATIO**  
**RESIDENTIAL NEXUS ANALYSIS**  
**CITY OF CUPERTINO, CA**

		<b>Prototype 3</b>
		<b>Small-lot SF / Townhome</b>
Sales Price	1,850 SF <sup>1</sup>	\$1,110,000 <sup>1</sup>
<b>Mortgage Payment</b>		
Downpayment @ 25%	25% <sup>2</sup>	\$277,500
Loan Amount		\$832,500
Interest Rate		5.35% <sup>3</sup>
Term of Mortgage		30 years
Annual Mortgage Payment	\$4,700 /month	\$55,800
<b>Other Costs</b>		
Property Taxes	1.25% of sales price <sup>4</sup>	\$13,900
HOA Dues	\$200 per month <sup>5</sup>	\$2,400
Homeowner Insurance	0.06% sale price <sup>6</sup>	\$600
<b>Total Annual Housing Cost</b>	<b>\$6,100 /month</b>	<b>\$72,700</b>
<b>% of Income Spent on Hsg</b>		<b>35% <sup>7</sup></b>
<b>Annual Household Income Required</b>		<b>\$208,000</b>
<b>Sales Price to Income Ratio</b>		<b>5.3</b>

Notes

(1) Based on Market Survey. Excludes garage space.

(2) Based on median down payment for small-lot single family homes built since 2005 and sold since 2012. Source: Dataquick.

(3) Average mortgage interest rate for prior 10 years derived from Freddie Mac Primary Mortgage Market Survey, West Region. Includes a 0.25% premium to reflect the non-conforming nature of the loan (jumbo loan). Based on weekly average rates for 30 year fixed rate mortgages during the period from 10/2004 through 9/2014.

(4) Property tax rate is inclusive of ad valorem taxes plus estimated fixed charges and assessments.

(5) Based on HOA dues for the Murano Circle small lot homes, Las Palmas townhomes and the Stevens Canyon townhomes.

(6) Estimated from quotes obtained from Progressive Insurance.

(7) Based on Freddie Mac data on conforming mortgages originated in zip codes beginning with 95. The average debt to income ratio of 35% includes both housing expenses and other debt like auto loans and credit cards. Were other debt excluded, the ratio would likely be lower than 35%. Using a ratio less than 35% would have increased the supported maximum fee levels from those reflected in the analysis; therefore, 35% represents a conservative estimate.

**TABLE A-5  
 PROTOTYPE 4: CONDOMINIUM  
 SALES PRICE TO INCOME RATIO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF CUPERTINO, CA**

		<b>Prototype 4 Condominium</b>
	<u>Gross SF</u>	
Sales Price	1,500 SF <sup>1</sup>	\$800,000 <sup>1</sup>
<b>Mortgage Payment</b>		
Downpayment @ 25%	25% <sup>2</sup>	\$200,000
Loan Amount		\$600,000
Interest Rate		5.10% <sup>3</sup>
Term of Mortgage		30 years
Annual Mortgage Payment	\$3,300 /month	\$39,100
<b>Other Costs</b>		
Property Taxes	1.25% of sales price <sup>4</sup>	\$10,000
HOA Dues / Maintenance	\$375 per month <sup>5</sup>	\$4,500
Homeowner Insurance	0.06% sale price <sup>6</sup>	\$400
<b>Total Annual Housing Cost</b>	<b>\$4,500 /month</b>	<b>\$54,000</b>
<b>% of Income Spent on Hsg</b>		<b>35% <sup>7</sup></b>
<b>Annual Income Required</b>		<b>\$154,000</b>
<b>Sales Price to Income Ratio</b>		<b>5.2</b>

Notes

(1) Based on market survey. Gross unit size shown assumes 80% efficiency.

(2) Median down payment is based on Dataquick data for condominiums built since 2005 and sold since 2012.

(3) Average mortgage interest rate for prior 10 years derived from Freddie Mac Primary Mortgage Market Survey - West Region. Based on weekly average rates for 30 year fixed rate mortgages during the period from 10/2004 through 9/2014.

(4) Property tax rate is inclusive of ad valorem taxes plus estimated fixed charges and assessments.

(5) Based on HOA dues for condominiums currently or recently on the market in the Villagio and Oak Park Village projects.

(6) Estimated from quote obtained from Progressive Insurance.

(7) Based on Freddie Mac data on conforming mortgages originated in zip codes beginning with 95. The average debt to income ratio of 35% includes both housing expenses and other debt like auto loans and credit cards. Were other debt excluded, the ratio would likely be lower than 35%. Using a ratio less than 35% would have increased the supported maximum fee levels from those reflected in the analysis; therefore, 35% represents a conservative estimate.

**TABLE A-6  
 PROTOTYPE 5: LOWER DENSITY APARTMENTS  
 RENT TO INCOME RATIO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF CUPERTINO, CA**

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		<b>Prototype 5 Lower Density Apartments</b>
Market Rent	<u>Gross SF</u>	
Monthly	1,250 SF <sup>1</sup>	\$3,250 <sup>1</sup>
Annual		\$39,000
% of Income Spent on Rent (excludes utilities)		30% <sup>2</sup>
<b>Annual Household Income Required</b>		<b>\$130,000</b>
Annual Rent to Income Ratio		3.3

Notes

(1) Based on the results of the market survey. Represents rent levels applicable to new units. Gross unit size shown assumes 80% efficiency.

(2) While landlords may permit rental payments to represent a slightly higher share of total income, 30% represents an average.

**TABLE A-7  
 PROTOTYPE 6: HIGHER DENSITY APARTMENTS  
 RENT TO INCOME RATIO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF CUPERTINO, CA**

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**Prototype 6  
 Higher Density Apartments**

Market Rent	<u>Gross SF</u>	
Monthly	1,250 SF <sup>1</sup>	\$4,000 <sup>1</sup>
Annual		\$48,000
% of Income Spent on Rent (excludes utilities)		30% <sup>2</sup>
<b>Annual Household Income Required</b>		<b>\$160,000</b>
Annual Rent to Income Ratio		3.3

Notes

(1) Based on the results of the market survey for higher density projects in nearby towns. Represents rent levels applicable to new units. Gross unit size shown assumes 80% efficiency.

(2) While landlords may permit rental payments to represent a slightly higher share of total income, 30% represents an average.

**TABLE A-8**  
**INCOME AVAILABLE FOR EXPENDITURES<sup>1</sup>**  
**RESIDENTIAL NEXUS ANALYSIS**  
**CITY OF CUPERTINO, CA**

	<b>Prototype 1: Larger Single Family</b>	<b>Prototype 2: Smaller Single Family</b>	<b>Prototype 3: Small-lot SF / Townhome</b>	<b>Prototype 4: Condominium</b>	<b>Prototype 5: Lower Density Apartments</b>	<b>Prototype 6: Higher Density Apartments</b>
Gross Income	100%	100%	100%	100%	100%	100%
<u>Less:</u>						
Federal Income Taxes <sup>2</sup>	21.2%	21.2%	16.8%	12.3%	14.1%	14.1%
State Income Taxes <sup>3</sup>	7%	6%	6%	5%	5%	5%
FICA Tax Rate <sup>4</sup>	7.65%	7.65%	7.65%	7.65%	7.65%	7.65%
Savings & other deductions <sup>5</sup>	12%	10%	8%	8%	8%	8%
<b>Percent of Income Available for Expenditures <sup>6</sup></b> <b>[Input to IMPLAN model]</b>	<b>52%</b>	<b>55%</b>	<b>62%</b>	<b>67%</b>	<b>65%</b>	<b>65%</b>

Notes:

- <sup>1</sup> Gross income after deduction of taxes and savings. 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.
- <sup>2</sup> Reflects average tax rates (as opposed to marginal) based on U.S. Internal Revenue Services, Tax Statistics, Tables 1.1 and 2.1. Figures are for the 2011 tax year, the most recent for which data is available. Homeowners are assumed to itemize deductions. Renter households are assumed to take the standard deduction. For Prototypes 1 and 2, the average tax rate for AGI of \$250,000 to \$500,000 for those itemizing deductions at 21.2% is applied. For Prototype 3, tax rates for AGI of \$200,000 to \$250,000 for those itemizing deductions is applied at 16.8%. For Prototype 4, tax rates for AGI of \$100,000 to \$200,000 for those itemizing deductions is applied at 12.3%. For prototypes 5 and 6, the average rate for AGI of \$100,000 to \$200,000 for tax payers not itemizing deductions is applied at 14.1%.
- <sup>3</sup> 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.
- <sup>4</sup> 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).
- <sup>5</sup> 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 for households earning less than \$225,000 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 Its Disposition." Households earning more than \$225,000 are assumed to save a higher percentage of their income, based on data published by the National Bureau of Economic Research, "Wealth Inequality in the United States Since 1913: Evidence From Capitalized Income Tax Data," October 2014.
- <sup>6</sup> 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-9  
FOR SALE PROTOTYPES: SALES PRICE TO INCOME SUMMARY  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF CUPERTINO, CA**

	<b>Per Unit</b>	<b>Per Sq.Ft.</b>	<b>100 Unit Building Module</b>
<b>PROTOTYPE 1: LARGER SINGLE FAMILY</b>			
Units			<b>100 Units</b>
Building Sq.Ft. (excludes garage)	3,850		385,000
Sales Price	\$2,600,000	\$0	\$260,000,000
Sales Price to Income Ratio	5.8		5.8
Gross Household Income	\$445,000		\$44,500,000
Income Available for Expenditure <sup>1</sup> 52% of gross	\$231,000		<b>\$23,140,000</b>
<b>PROTOTYPE 2: SMALLER SINGLE FAMILY</b>			
Units			<b>100 Units</b>
Building Sq.Ft. (excludes garage)	2,800		280,000
Sales Price	\$1,750,000	\$0	\$175,000,000
Sales Price to Income Ratio	5.8		5.8
Gross Household Income	\$300,000		\$30,000,000
Income Available for Expenditure <sup>1</sup> 55% of gross	\$165,000		<b>\$16,500,000</b>
<b>PROTOTYPE 3: SMALL-LOT SF / TOWNHOME</b>			
Units			<b>100 Units</b>
Building Sq.Ft. (excludes garage)	1,850		185,000
Sales Price	\$1,110,000	\$0	\$111,000,000
Sales Price to Income Ratio	5.3		5.3
Gross Household Income	\$208,000		\$20,800,000
Income Available for Expenditure <sup>1</sup> 62% of gross	\$129,000		<b>\$12,900,000</b>
<b>PROTOTYPE 4: CONDOMINIUM</b>			
Units			<b>100 Units</b>
Building Sq.Ft. (gross)	1,500		150,000
Sales Price	\$800,000	\$0	\$80,000,000
Sales Price to Income Ratio	5.2		5.2
Gross Household Income	\$154,000		\$15,400,000
Income Available for Expenditure <sup>1</sup> 67% of gross	\$103,000		<b>\$10,320,000</b>

Notes:

(1) Represents net income available for expenditures after income tax, payroll taxes, and savings. See Table A-8 for derivation.

Source: See Tables A-2 through A-8.

**TABLE A-10  
NEW MARKET RATE RESIDENTIAL HOUSEHOLD SUMMARY  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF CUPERTINO, CA**

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	<u>Per Unit</u>	<u>100 Unit Building Module</u>
<b>PROTOTYPE 5: LOWER DENSITY APARTMENTS</b>		
Units		<b>100 Units</b>
Building Sq.Ft. (gross)	1,250	125,000
Rent		
Monthly	\$3,250	\$325,000
Annual	\$39,000	\$3,900,000
Rent to Income Ratio	3.3	3.3
Gross Household Income	\$130,000	\$13,000,000
Income Available for Expenditure <sup>1</sup> 65% of gross	\$85,000	<b>\$8,450,000</b>

**PROTOTYPE 6: HIGHER DENSITY APARTMENTS**

Units		<b>100 Units</b>
Building Sq.Ft. (gross)	1,250	125,000
Rent		
Monthly	\$4,000	\$400,000
Annual	\$48,000	\$4,800,000
Rent to Income Ratio	3.3	3.3
Gross Household Income	\$160,000	\$16,000,000
Income Available for Expenditure <sup>1</sup> 65% of gross	\$104,000	<b>\$10,400,000</b>

Notes:

(1) Represents net income available for expenditures after income tax, payroll taxes, and savings. See Table A-8 for derivation.

Source: Tables A-6 and A-7.

## **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 software package now commercially available through the IMPLAN Group, LLC. IMPLAN has been in use since 1979 and refined over time. It is a widely used tool for analyzing economic impacts for a broad range of applications.

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. 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 Cupertino or nearby. In addition, the employment impacts will extend throughout the County and beyond based on where jobs are located that serve Cupertino residents. In fact, Cupertino 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.



## Application of the IMPLAN Model to Estimate Job Growth

The IMPLAN model was applied to link income to household expenditures to job growth. 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 in Exhibit 4.

<b>Exhibit 4: Jobs Generated Per 100 Units</b>						
	<i>Larger Single Family</i>	<i>Smaller Single Family</i>	<i>Small Lot SF / Townhome</i>	<i>Condominium</i>	<i>Lower Density Apartment</i>	<i>Higher Density Apartment</i>
Annual Household Expenditures (100 Units)	\$23,140,000	\$16,500,000	\$12,900,000	\$10,320,000	\$8,450,000	\$10,400,000
Total Jobs Generated, 100 Units	142.2	101.4	79.3	63.4	50.8	63.9

Source: KMA, IMPLAN

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 Cupertino prototypes, all of the prototypes are in the \$150,000 and up income category, except for the Lower Density Apartment, which is in the \$100,000 to \$150,000 category. Estimated employment is shown for each IMPLAN industry sector representing 1% or more of total employment. The jobs that are generated 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**  
**EMPLOYMENT GENERATED**  
**RESIDENTIAL NEXUS ANALYSIS**  
**CITY OF CUPERTINO, CA**

*Per 100 Market Rate Units*

	Prototype 1: Larger Single Family	Prototype 2: Smaller Single Family	Prototype 3: Small-lot SF / Townhome	Prototype 4: Condominium	Prototype 5: Lower Density Apartments	Prototype 6: Higher Density Apartments	% of Jobs
<b>Household Expenditures (100 Market Rate Units) <sup>1</sup></b>	\$23,140,000	\$16,500,000	\$12,900,000	\$10,320,000	\$8,450,000	\$10,400,000	
<b>Jobs Generated by Industry <sup>2</sup></b>							
Retail Stores - General merchandise	5.8	4.1	3.2	2.6	2.0	2.6	4%
Retail Stores - Food and beverage	5.7	4.1	3.2	2.6	2.0	2.6	4%
Retail Stores - Motor vehicle and parts	3.3	2.4	1.8	1.5	1.1	1.5	2%
Retail Stores - Clothing and clothing accessories	3.3	2.3	1.8	1.5	1.1	1.5	2%
Retail Stores - Miscellaneous	3.2	2.2	1.8	1.4	1.1	1.4	2%
Retail Stores - Health and personal care	2.4	1.7	1.4	1.1	0.8	1.1	2%
Retail Stores - Building material and garden supply	1.7	1.2	1.0	0.8	0.6	0.8	1%
Retail Stores - Sporting goods, hobby, book and music	<u>1.4</u>	<u>1.0</u>	<u>0.8</u>	<u>0.6</u>	<u>0.5</u>	<u>0.6</u>	<u>1%</u>
Subtotal Retail	26.9	19.2	15.0	12.0	9.3	12.1	19%
Offices of physicians and dentists	8.4	6.0	4.7	3.8	3.6	3.8	6%
Private hospitals	6.4	4.6	3.6	2.9	2.7	2.9	5%
Nursing and residential care facilities	4.1	3.0	2.3	1.8	1.7	1.9	3%
Medical and diagnostic labs and outpatient care	<u>1.8</u>	<u>1.3</u>	<u>1.0</u>	<u>0.8</u>	<u>0.8</u>	<u>0.8</u>	<u>1%</u>
Subtotal Health Care	20.8	14.8	11.6	9.3	8.8	9.3	15%
Food services and drinking places	20.1	14.4	11.2	9.0	7.8	9.0	14%
Private jr. colleges, colleges, univ., profess. schools	5.5	3.9	3.0	2.4	1.2	2.5	4%
Private household operations	4.9	3.5	2.8	2.2	1.6	2.2	3%
Real estate including property management	4.6	3.3	2.5	2.0	1.9	2.1	3%
Other private educational services	3.3	2.4	1.8	1.5	0.8	1.5	2%
Private elementary and secondary schools	3.1	2.2	1.8	1.4	0.8	1.4	2%
Child day care services	2.4	1.7	1.4	1.1	0.6	1.1	2%
Individual and family services	2.3	1.7	1.3	1.0	0.8	1.1	2%
Personal care services	2.3	1.6	1.3	1.0	0.9	1.0	2%
Civic, social, professional, and similar organizations	2.3	1.6	1.3	1.0	0.8	1.0	2%
Securities, commodities, investments	2.2	1.6	1.2	1.0	0.8	1.0	2%
Wholesale trade businesses	2.0	1.4	1.1	0.9	0.9	0.9	1%
Services to buildings and dwellings	1.9	1.4	1.1	0.9	0.7	0.9	1%
Banking and depository credit	1.9	1.3	1.0	0.8	0.7	0.8	1%
Amusement parks, arcades, and gambling industries	1.8	1.2	1.0	0.8	0.6	0.8	1%
Automotive repair and maintenance, except car washes	1.5	1.1	0.8	0.7	0.6	0.7	1%
All Other	32.4	23.1	18.1	14.4	11.3	14.6	23%
<b>Total Number of Jobs Generated</b>	142.2	101.4	79.3	63.4	50.8	63.9	100%

<sup>1</sup> Estimated employment generated by expenditures of households within 100 prototypical market rate units. Employment estimates are based on the IMPLAN Group's economic model, IMPLAN, for Santa Clara County. Includes both full- and part-time jobs.

<sup>2</sup> For Industries representing more than 1% of total employment.

## C. THE KMA JOBS HOUSING NEXUS MODEL

This section presents a summary of the analysis linking the employment growth created by residential development, or the output of the IMPLAN model (see Section B), to the estimated number of affordable housing units required in each of three income categories, for each of the six residential prototype units.

### Analysis Approach and Framework

The analysis examines the employment growth created by the consumer spending of residents of new market-rate housing (in 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 needed to mitigate the impact of 100 market rate units.

The affordability levels used in the analysis are set by the income limits published by the California Department of Housing and Community Development (HCD). Exhibit 5 below shows HCD's 2014 Santa Clara County Area Median Income (AMI), as well as the income limits for the three categories that were evaluated: Very Low (50% of AMI), Low (80% of AMI), and Moderate (120% of AMI).

<b>Exhibit 5: 2014 Income Limits for Santa Clara County</b>						
	<i>Household Size (Persons)</i>					
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6 +</i>
Very Low Income	\$37,150	\$42,450	\$47,750	\$53,050	\$57,300	\$61,550
Low Income	\$59,400	\$67,900	\$76,400	\$84,900	\$91,650	\$98,450
Moderate Income	\$88,600	\$101,300	\$113,950	\$126,600	\$136,750	\$146,850
Median Income	\$73,850	\$84,400	\$94,950	\$105,500	\$113,950	\$122,400

Source: HCD

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 residential 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***

This step is an adjustment to take into account any declines, changes and shifts within all sectors of the economy and to recognize that new space is not always 100% equivalent to net new employees. A 20% adjustment is utilized to recognize the long-term shifts in employment occurring in Santa Clara County and the likelihood of continuing changes to the local economy.

### ***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 needed for new workers is less than the number of new workers. The workers-per-worker-household ratio eliminates from the denominator all non-working households, such as retired persons, students, and those on public assistance. If the average number of workers in *all* households were used, it would have resulted in a greater estimated demand for housing units. Excluding the non-worker households, therefore, makes the analysis more conservative.

The County average of 1.72 workers per worker household, whether full or part-time (from the U. S. Census Bureau 2011-2013 American Community Survey), is used for this step in the analysis. The number of jobs created is divided by 1.72 to determine the number of new households.

### ***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 2013 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.

Exhibit 6 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.

<b>Exhibit 6: Illustration of Model Step 4a.</b>						
A. IMPLAN Output by IMPLAN Industry Sector		B. Link to Corresponding NAICS Code		C. Aggregate at 4-Digit NAICS Code Level		
<u>Jobs</u>	<u>IMPLAN Sector</u>	<u>Jobs</u>	<u>NAICS Code</u>	<u>Jobs</u>	<u>% Total Employment</u>	<u>4-Digit NAICS</u>
0.7	399 - Child day care services	0.7	6244 Child day care services	0.7	100%	6244 Child day care services
9.2	413 - Food and Drinking Places	9.2	722 Food and Drinking Places	8.3	91%	7225 Restaurants and Other Eating Places
				0.6	6%	7223 Special Food Services
				0.3	3%	7224 Drinking Places (Alcoholic Beverages)

Source: KMA

#### *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 sales (16%), office and administrative support (16%), and food preparation and

serving (15% - 16%). 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 B Tables 1 through 4 provide 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 B, Tables 2 and 4. 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.

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

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. Probability factors are specific to Santa Clara County and are derived from the 2011 – 2013 American Community Survey. 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.

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 the 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 50% of AMI category. The methodology is repeated for each of the 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 in Exhibit 7 below. The exhibit shows the total demand for affordable housing units associated with 100 market rate units.

<b>Exhibit 7: New Worker Households by Income Level per 100 Market Rate Units</b>						
	<i>Larger Single Family</i>	<i>Smaller Single Family</i>	<i>Small Lot SF / Townhome</i>	<i>Condo-minium</i>	<i>Lower Density Apartment</i>	<i>Higher Density Apartment</i>
Very Low (Under 50% AMI)	30.2	21.5	16.8	13.5	10.9	13.6
Low (50%-80% AMI)	16.2	11.5	9.0	7.2	5.7	7.3
Moderate (80%-120% AMI)	8.8	6.3	4.9	3.9	3.1	4.0
<b>Total, Less than 120% AMI</b>	<b>55.2</b>	<b>39.4</b>	<b>30.8</b>	<b>24.6</b>	<b>19.7</b>	<b>24.8</b>
Greater than 120% AMI	11.0	7.9	6.2	4.9	4.0	5.0
<b>Total, New Households</b>	<b>66.2</b>	<b>47.2</b>	<b>36.9</b>	<b>29.5</b>	<b>23.7</b>	<b>29.8</b>

Source: KMA; see Table C-3

Housing demand for new worker households earning less than 120% of AMI ranges from 55 units per 100 market rate Larger Single Family units, to 19.7 units per 100 market rate lower density apartments. Housing demand is distributed across the lower income tiers with the greatest number of households in the Very Low tier. 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.

## Summary Findings Per Unit

The analysis thus far has calculated the impacts for 100 new residential units. In this step, the conclusions are translated to households *per unit* by income level (see Table C-4).

For example, for the larger single family units, household generation per unit by income level is shown in Exhibit 8, as follows:

<b>Exhibit 8: Larger Single Family Units</b>	
Up to 50% Median Income	0.30
50% to 80% Median Income	0.16
80% to 120% Median Income	0.09
<b>Total Under 120% AMI</b>	<b>0.55</b>

Source: KMA

## Inclusionary Percentages Supported

The analysis findings identify how many lower income households are generated for every 100 market rate units. These findings are adjusted to a supported inclusionary percentage which represents the percent of units provided onsite within a project that would fully mitigate the affordable housing impacts as documented in this nexus analysis.

The percentages are calculated including both market rate and affordable units (for example, 25 affordable units per 100 market rate units translates to a project of 125 units; 25 affordable units out of 125 units equals 20%).

Exhibit 9, below, presents the results of the analysis, drawn from Table C-5. Each tier is cumulative, or inclusive of the tiers above. The analysis supports maximum inclusionary percentages between 20% and 36%, for the for-sale prototypes. The supported inclusionary percentages for the rental prototypes are presented, although KMA notes that the *Palmer* case precludes cities from requiring the inclusion of affordable units in rental projects unless the developer receives a density bonus, certain regulatory concessions, or financial assistance and agrees by contract to restrict the rents.

<b>Exhibit 9: Cumulative Inclusionary Percentage Supported by Nexus Analysis</b>						
	<i>Larger Single Family</i>	<i>Smaller Single Family</i>	<i>Small Lot SF / Townhome</i>	<i>Condominium</i>	<i>Lower Density Apartment</i>	<i>Higher Density Apartment</i>
Very Low (Under 50% AMI)	23%	18%	14%	12%	10%	12%
Low (50%-80% AMI)	32%	25%	21%	17%	14%	17%
Moderate (80%-120% AMI)	36%	28%	24%	20%	16%	20%

Source: KMA; see Table C-5

The above percentages are supportive of Cupertino's existing 15% inclusionary requirement for ownership housing.



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

	<b>Prototype 1: Larger Single Family</b>	<b>Prototype 2: Smaller Single Family</b>	<b>Prototype 3: Small-lot SF / Townhome</b>	<b>Prototype 4: Condominium</b>	<b>Prototype 5: Lower Density Apartments</b>	<b>Prototype 6: Higher Density Apartments</b>
Step 1 - Employees <sup>1</sup>	142.2	101.4	79.3	63.4	50.8	63.9
Step 2 - Adjustment for Changing Industries (20%)	113.7	81.1	63.4	50.7	40.6	51.1
Step 3 - Adjustment for Number of Households (1.72) <sup>2</sup>	66.2	47.2	36.9	29.5	23.7	29.8
Step 4 - Occupation Distribution <sup>3</sup>						
Management Occupations	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Business and Financial Operations	3.7%	3.7%	3.7%	3.7%	3.5%	3.7%
Computer and Mathematical	1.3%	1.3%	1.3%	1.3%	1.2%	1.3%
Architecture and Engineering	0.3%	0.3%	0.3%	0.3%	0.2%	0.3%
Life, Physical, and Social Science	0.4%	0.4%	0.4%	0.4%	0.3%	0.4%
Community and Social Services	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
Legal	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
Education, Training, and Library	5.6%	5.6%	5.6%	5.6%	3.8%	5.6%
Arts, Design, Entertainment, Sports, and Media	1.4%	1.4%	1.4%	1.4%	1.2%	1.4%
Healthcare Practitioners and Technical	7.4%	7.4%	7.4%	7.4%	8.4%	7.4%
Healthcare Support	3.9%	3.9%	3.9%	3.9%	4.5%	3.9%
Protective Service	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
Food Preparation and Serving Related	15.3%	15.3%	15.3%	15.3%	16.3%	15.3%
Building and Grounds Cleaning and Maint.	6.0%	6.0%	6.0%	6.0%	5.8%	6.0%
Personal Care and Service	5.4%	5.4%	5.4%	5.4%	5.2%	5.4%
Sales and Related	16.0%	16.0%	16.0%	16.0%	15.8%	16.0%
Office and Administrative Support	15.7%	15.7%	15.7%	15.7%	15.8%	15.7%
Farming, Fishing, and Forestry	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Construction and Extraction	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
Installation, Maintenance, and Repair	3.4%	3.4%	3.4%	3.4%	3.6%	3.4%
Production	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Transportation and Material Moving	<u>4.5%</u>	<u>4.5%</u>	<u>4.5%</u>	<u>4.5%</u>	<u>4.4%</u>	<u>4.5%</u>
<b>Totals</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Management Occupations	2.7	1.9	1.5	1.2	0.9	1.2
Business and Financial Operations	2.4	1.7	1.3	1.1	0.8	1.1
Computer and Mathematical	0.8	0.6	0.5	0.4	0.3	0.4
Architecture and Engineering	0.2	0.1	0.1	0.1	0.1	0.1
Life, Physical, and Social Science	0.3	0.2	0.2	0.1	0.1	0.1
Community and Social Services	1.1	0.8	0.6	0.5	0.4	0.5
Legal	0.4	0.3	0.2	0.2	0.2	0.2
Education, Training, and Library	3.7	2.6	2.1	1.6	0.9	1.7
Arts, Design, Entertainment, Sports, and Media	0.9	0.7	0.5	0.4	0.3	0.4
Healthcare Practitioners and Technical	4.9	3.5	2.7	2.2	2.0	2.2
Healthcare Support	2.6	1.8	1.4	1.1	1.1	1.2
Protective Service	0.8	0.6	0.4	0.4	0.3	0.4
Food Preparation and Serving Related	10.1	7.2	5.6	4.5	3.9	4.5
Building and Grounds Cleaning and Maint.	4.0	2.9	2.2	1.8	1.4	1.8
Personal Care and Service	3.6	2.6	2.0	1.6	1.2	1.6
Sales and Related	10.6	7.6	5.9	4.7	3.7	4.8
Office and Administrative Support	10.4	7.4	5.8	4.6	3.7	4.7
Farming, Fishing, and Forestry	0.0	0.0	0.0	0.0	0.0	0.0
Construction and Extraction	0.5	0.3	0.3	0.2	0.2	0.2
Installation, Maintenance, and Repair	2.3	1.6	1.3	1.0	0.8	1.0
Production	1.0	0.7	0.6	0.4	0.3	0.4
Transportation and Material Moving	<u>3.0</u>	<u>2.1</u>	<u>1.7</u>	<u>1.3</u>	<u>1.0</u>	<u>1.3</u>
<b>Totals</b>	66.2	47.2	36.9	29.5	23.7	29.8

**Notes:**

<sup>1</sup> Estimated employment generated by expenditures of households within 100 prototypical market rate units. Employment estimates based on economic model, IMPLAN.

<sup>2</sup> Adjustment from number of workers to households using average of 1.72 workers per worker household derived from the U.S. Census American Community Survey 2011 to 2013.

<sup>3</sup> See Appendix B Tables 1 through 4 for additional information on Major Occupation Categories.

**TABLE C-2**  
**VERY LOW-INCOME EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED**  
**RESIDENTIAL NEXUS ANALYSIS**  
**CITY OF CUPERTINO, CA**

*Per 100 Market Rate Units*

	<b>Prototype 1: Larger Single Family</b>	<b>Prototype 2: Smaller Single Family</b>	<b>Prototype 3: Small-lot SF / Townhome</b>	<b>Prototype 4: Condominium</b>	<b>Prototype 5: Lower Density Apartments</b>	<b>Prototype 6: Higher Density Apartments</b>
<b>Step 5 &amp; 6 - Very Low Income Households (under 50% AMI) within Major Occupation Categories <sup>2</sup></b>						
Management	0.03	0.02	0.02	0.01	0.01	0.01
Business and Financial Operations	0.07	0.05	0.04	0.03	0.02	0.03
Computer and Mathematical	-	-	-	-	-	-
Architecture and Engineering	-	-	-	-	-	-
Life, Physical and Social Science	-	-	-	-	-	-
Community and Social Services	-	-	-	-	-	-
Legal	-	-	-	-	-	-
Education Training and Library	1.00	0.72	0.56	0.45	0.25	0.45
Arts, Design, Entertainment, Sports, & Media	-	-	-	-	-	-
Healthcare Practitioners and Technical	0.11	0.08	0.06	0.05	0.04	0.05
Healthcare Support	1.24	0.88	0.69	0.55	0.51	0.56
Protective Service	-	-	-	-	-	-
Food Preparation and Serving Related	7.86	5.60	4.38	3.50	2.99	3.53
Building Grounds and Maintenance	2.44	1.74	1.36	1.09	0.86	1.10
Personal Care and Service	2.26	1.61	1.26	1.01	0.78	1.02
Sales and Related	6.30	4.49	3.51	2.81	2.28	2.83
Office and Admin	3.44	2.45	1.92	1.53	1.23	1.54
Farm, Fishing, and Forestry	-	-	-	-	-	-
Construction and Extraction	-	-	-	-	-	-
Installation Maintenance and Repair	0.44	0.32	0.25	0.20	0.16	0.20
Production	-	-	-	-	-	-
Transportation and Material Moving	1.60	1.14	0.89	0.72	0.57	0.72
<b>Very Low Income Households - Major Occupations</b>	<b>26.79</b>	<b>19.11</b>	<b>14.94</b>	<b>11.95</b>	<b>9.72</b>	<b>12.04</b>
<b>VL Households<sup>1</sup> - all other occupations</b>	<b>3.39</b>	<b>2.42</b>	<b>1.89</b>	<b>1.51</b>	<b>1.21</b>	<b>1.53</b>
<b>Total VL Households<sup>1</sup></b>	<b>30.19</b>	<b>21.53</b>	<b>16.83</b>	<b>13.46</b>	<b>10.93</b>	<b>13.57</b>

<sup>1</sup> Includes households earning from zero through 50% of Santa Clara County Area Median Income.

<sup>2</sup> See Appendix B Tables 1 and 3 for additional information on Major Occupation Categories. Note that the model places individual employees into households. Many households have multiple income sources and therefore household income is higher than the wages shown in Appendix B Tables 2 and 4. The distribution of the number of workers per worker household and the distribution of household size are based on American Community Survey data.

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

**RESIDENTIAL UNIT DEMAND IMPACTS  
PER 100 MARKET RATE UNITS**

<b>Number of New Households<sup>1</sup></b>	<b>Prototype 1: Larger Single Family</b>	<b>Prototype 2: Smaller Single Family</b>	<b>Prototype 3: Small-lot SF / Townhome</b>	<b>Prototype 4: Condominium</b>	<b>Prototype 5: Lower Density Apartments</b>	<b>Prototype 6: Higher Density Apartments</b>
Under 50% Area Median Income	30.2	21.5	16.8	13.5	10.9	13.6
50% to 80% Area Median Income	16.2	11.5	9.0	7.2	5.7	7.3
80% to 120% Area Median Income	8.8	6.3	4.9	3.9	3.1	4.0
Subtotal through 120% of Median	55.2	39.4	30.8	24.6	19.7	24.8
Over 120% Area Median Income	11.0	7.9	6.2	4.9	4.0	5.0
<b>Total Employee Households</b>	<b>66.2</b>	<b>47.2</b>	<b>36.9</b>	<b>29.5</b>	<b>23.7</b>	<b>29.8</b>

**Percent of New Households<sup>1</sup>**

Under 50% Area Median Income	46%	46%	46%	46%	46%	46%
50% to 80% Area Median Income	24%	24%	24%	24%	24%	24%
80% to 120% Area Median Income	13%	13%	13%	13%	13%	13%
Subtotal through 120% of Median	83%	83%	83%	83%	83%	83%
Over 120% Area Median Income	17%	17%	17%	17%	17%	17%
<b>Total Employee Households</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Notes

<sup>1</sup> Households of retail, education, healthcare and other workers that serve residents of new market rate units.

**TABLE C-4  
IMPACT ANALYSIS SUMMARY PER UNIT  
EMPLOYEE HOUSEHOLDS GENERATED  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF CUPERTINO, CA**

**RESIDENTIAL UNIT DEMAND IMPACTS**

<b>Number of New Households<sup>1</sup></b>	<b>PER MARKET RATE UNIT</b>					
	<b>Prototype 1: Larger Single Family</b>	<b>Prototype 2: Smaller Single Family</b>	<b>Prototype 3: Small-lot SF / Townhome</b>	<b>Prototype 4: Condominium</b>	<b>Prototype 5: Lower Density Apartments</b>	<b>Prototype 6: Higher Density Apartments</b>
Under 50% Area Median Income	0.30	0.22	0.17	0.13	0.11	0.14
50% to 80% Area Median Income	0.16	0.12	0.09	0.07	0.06	0.07
80% to 120% Area Median Income	0.09	0.06	0.05	0.04	0.03	0.04
Subtotal through 120% of Median	0.55	0.39	0.31	0.25	0.20	0.25
Over 120% Area Median Income	0.11	0.08	0.06	0.05	0.04	0.05
<b>Total Employee Households</b>	<b>0.66</b>	<b>0.47</b>	<b>0.37</b>	<b>0.30</b>	<b>0.24</b>	<b>0.30</b>

Notes

<sup>1</sup> Households of retail, education, healthcare and other workers that serve residents of new market rate units.

**TABLE C-5  
 INCLUSIONARY REQUIREMENT SUPPORTED  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF CUPERTINO, CA**

	<b>Prototype 1: Larger Single Family</b>	<b>Prototype 2: Smaller Single Family</b>	<b>Prototype 3: Small-lot SF / Townhome</b>	<b>Prototype 4: Condominium</b>	<b>Prototype 5: Lower Density Apartments</b>	<b>Prototype 6: Higher Density Apartments</b>
<b>Supported Inclusionary Requirement</b>						
<b>Per 100 Market Rate Units - Cumulative Through</b>						
50% OF MEDIAN INCOME	30.2 Units	21.5 Units	16.8 Units	13.5 Units	10.9 Units	13.6 Units
80% OF MEDIAN INCOME	46.3 Units	33.0 Units	25.8 Units	20.7 Units	16.6 Units	20.8 Units
120% OF MEDIAN INCOME	55.2 Units	39.4 Units	30.8 Units	24.6 Units	19.7 Units	24.8 Units
<b>Supported Inclusionary Percentage - Cumulative Through <sup>1</sup></b>						
50% OF MEDIAN INCOME	23%	18%	14%	12%	10%	12%
80% OF MEDIAN INCOME	32%	25%	21%	17%	14%	17%
120% OF MEDIAN INCOME	36%	28%	24%	20%	16%	20%

Notes:

<sup>1</sup> Calculated by dividing the supported number of affordable units by the total number of units (supported affordable units + 100 market rate units).

## D. MITIGATION COSTS

This section takes the conclusions of the previous section on the number of households in each income category created by 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 maximum impact fee. 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 additional housing in Cupertino, known as the “affordability gap.” The cost of new housing is based on development costs for affordable projects recently built, or in the planning stages, in Cupertino and neighboring cities.

Affordability gaps are calculated for each of the three categories of area median income: Very Low (up to 50%), Low (50% to 80%), and Moderate (80% to 120%). The following summarizes the analysis of mitigation cost, which is based on the affordability gap or net cost to deliver units that are affordable to worker households in the lower income tiers. Detailed affordability gap calculations are presented in Appendix C.

KMA assumes that subsidized Very Low and Low Income households will reside in rental units, and subsidized Moderate Income households will reside in ownership units. For the Very Low Income households, the affordability gaps are calculated based upon rents affordable to households earning 50% of AMI. For Low Income households, the gaps are calculated based upon rents affordable to households earning 60% of AMI. Both of these standards are consistent with Health & Safety Code provisions regarding affordable rent. KMA and the City assume the availability of federal and state tax credit financing for new affordable rental developments. The assumed rent levels are therefore also consistent with the tax credit program. This is a conservative methodology for estimating the affordability gaps and likely understates the actual need, since applications for federal tax credits greatly exceed their availability.

For the Moderate Income tier, the affordable sales price is calculated for a household earning 110% of Median Income, also consistent with Health & Safety Code provisions.

Development costs are estimated based on a review of recent affordable rental tax credit projects, and an estimate of total development costs for a modest condominium unit. Additional information regarding the derivation of the affordability gaps may be found in Appendix C of this report. Note that the affordability gaps are the same as those assumed in the non-residential nexus analysis.

<b>Exhibit 10: Affordability Gaps</b>	
Very Low (0% - 50% AMI)	(\$241,000)
Low Income (51% - 80% AMI)	(\$213,000)
Moderate Income (81% - 120% AMI)	(\$123,000)

Source: KMA; see Appendix C.

AMI = Area Median Income

## Maximum Fees to Mitigate Impacts

The last step in the impact fee analysis marries the findings on the numbers of households in each of the lower income ranges to the affordability gaps, or the costs of delivering housing to them in Cupertino.

Table D-1 summarizes the analysis. The Affordability Gaps are drawn from the prior discussion. The “Maximum Fee per Market Rate Unit” shows the results of the following calculation: the affordability gap times the number of affordable units generated by each market rate unit. (Demand for affordable units for each of the income ranges is drawn from Table C-4 in the previous section.)

The maximum impact fees for each of the prototypes are shown in Exhibit 11, below:

<b>Exhibit 11: Maximum Impact Fee Per Market Rate Unit</b>							
	<i>Affordability Gap</i>	<i>Larger Single Family</i>	<i>Smaller Single Family</i>	<i>Small Lot SF / Townhome</i>	<i>Condo-minium</i>	<i>Lower Density Apartment</i>	<i>Higher Density Apartment</i>
Very Low (Under 50% AMI)	\$241,000	\$72,800	\$51,900	\$40,600	\$32,400	\$26,300	\$32,700
Low (50%-80% AMI)	\$213,000	\$34,400	\$24,500	\$19,200	\$15,300	\$12,200	\$15,500
Moderate (80%-120% AMI)	\$123,000	\$10,900	\$7,800	\$6,100	\$4,900	\$3,800	\$4,900
<b>Maximum Impact Fee Per Unit</b>		<b>\$118,100</b>	<b>\$84,200</b>	<b>\$65,900</b>	<b>\$52,600</b>	<b>\$42,300</b>	<b>\$53,100</b>

Source: KMA

The maximum impact fees, 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 A for more discussion of the prototypes. The results per square foot of building area are shown in Exhibit 12, as follows:

<b>Exhibit 12: Maximum Impact Fee Per Sq. Ft.</b>							
	<i>Affordability Gap</i>	<i>Larger Single Family</i>	<i>Smaller Single Family</i>	<i>Small Lot SF / Townhome</i>	<i>Condo-minium</i>	<i>Lower Density Apartment</i>	<i>Higher Density Apartment</i>
Unit Size*		3,850 SF	2,800 SF	1,850 SF	1,500 SF	1,250 SF	1,250 SF
Very Low (Under 50% AMI)	\$241,000	\$18.90	\$18.50	\$21.90	\$21.60	\$21.00	\$26.20
Low (50%-80% AMI)	\$213,000	\$8.90	\$8.80	\$10.40	\$10.20	\$9.80	\$12.40
Moderate (80%-120% AMI)	\$123,000	\$2.80	\$2.80	\$3.30	\$3.30	\$3.00	\$3.90
<b>Maximum Impact Fee Per Square Foot</b>		<b>\$30.60</b>	<b>\$30.10</b>	<b>\$35.60</b>	<b>\$35.10</b>	<b>\$33.80</b>	<b>\$42.50</b>

\*Excluding garages. For condominium and apartments, includes common areas.

Source: KMA

These costs express the total maximum impact fees for the six prototype developments in the City of Cupertino. 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.**

**TABLE D-1  
SUPPORTED FEE / NEXUS SUMMARY PER UNIT  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF CUPERTINO, CA**

**TOTAL NEXUS COST PER MARKET RATE UNIT**

	<b>Nexus Cost Per Market Rate Unit<sup>3</sup></b>						
	<b>Affordability Gap Per Unit<sup>1</sup></b>	<b>Prototype 1: Larger Single Family</b>	<b>Prototype 2: Smaller Single Family</b>	<b>Prototype 3: Small-lot SF / Townhome</b>	<b>Prototype 4: Condominium</b>	<b>Prototype 5: Lower Density Apartments</b>	<b>Prototype 6: Higher Density Apartments</b>
<b>Household Income Level</b>							
Under 50% Area Median Income	\$241,000 <sup>1</sup>	\$72,800	\$51,900	\$40,600	\$32,400	\$26,300	\$32,700
50% to 80% Area Median Income	\$213,000 <sup>1</sup>	\$34,400	\$24,500	\$19,200	\$15,300	\$12,200	\$15,500
80% to 120% Area Median Income	\$123,000 <sup>2</sup>	\$10,900	\$7,800	\$6,100	\$4,900	\$3,800	\$4,900
<b>Total Supported Fee / Nexus</b>		<b>\$118,100</b>	<b>\$84,200</b>	<b>\$65,900</b>	<b>\$52,600</b>	<b>\$42,300</b>	<b>\$53,100</b>

**TOTAL NEXUS COST PER SQUARE FOOT OF BUILDING AREA<sup>4</sup>**

	<b>Nexus Cost Per Square Foot (Gross Building Area)<sup>4</sup></b>						
	<b>Unit Size (SF)</b>	<b>Prototype 1: Larger Single Family</b>	<b>Prototype 2: Smaller Single Family</b>	<b>Prototype 3: Small-lot SF / Townhome</b>	<b>Prototype 4: Condominium</b>	<b>Prototype 5: Lower Density Apartments</b>	<b>Prototype 6: Higher Density Apartments</b>
<b>Household Income Level</b>							
Under 50% Area Median Income	3,850 SF	\$18.90	\$18.50	\$21.90	\$21.60	\$21.00	\$26.20
50% to 80% Area Median Income	2,800 SF	\$8.90	\$8.80	\$10.40	\$10.20	\$9.80	\$12.40
80% to 120% Area Median Income	1,850 SF	\$2.80	\$2.80	\$3.30	\$3.30	\$3.00	\$3.90
<b>Total Supported Fee / Nexus</b>	1,500 SF	<b>\$30.60</b>	<b>\$30.10</b>	<b>\$35.60</b>	<b>\$35.10</b>	<b>\$33.80</b>	<b>\$42.50</b>

**Notes:**

<sup>1</sup> Assumes affordable rental units. Affordability gaps represent the remaining affordability gap after tax credit financing.

<sup>2</sup> Affordability gap for moderate income households based on ownership unit priced at 110% AMI.

<sup>3</sup> Nexus cost per unit computed by multiplying affordable unit demand from Table C-4 by the affordability gap.

<sup>4</sup> Computed by dividing the nexus cost per unit by the square footage of the unit (gross square footage for condos and apartments).



### **III. ADDENDUM: ADDITIONAL BACKGROUND AND NOTES ON SPECIFIC ASSUMPTIONS**

#### **No Excess Supply of Affordable Housing**

The residential nexus analysis assumes there is no excess supply of affordable housing available to absorb or offset new demand; therefore, new affordable units are needed to mitigate the new affordable housing demand generated by development of new market rate residential units. The draft 2014-22 General Plan Housing Element documents that conditions in Cupertino are consistent with this underlying assumption. Housing vacancy is minimal. The City consistently maintains a waitlist of households seeking assisted affordable housing in Cupertino.

#### **Geographic Area of Impact**

The analysis quantifies all of the job 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. 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 Silicon Valley, 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.

#### **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 the type of unit to be delivered depends on the income/affordability level. In Cupertino, the City anticipates assisting the development of rental units for household with incomes of less than 80% of median and ownership units for households with incomes between 80 and 120%.

The affordable units assisted by the public sector 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 new market rates units; in other communities (particularly very high income communities), they may be smaller and more modest than new market rate units. 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 is 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).

### **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 and therefore 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 fee is a one-time requirement that addresses impacts generated over the life of the project. Recessions are temporary conditions; a healthy economy will return and the impacts will be experienced. 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, economic conditions will have likely improved.

### **The Burden of Paying for Affordable Housing**

Cupertino's Housing Mitigation Program does not place the entire burden for increasing the supply of affordable housing on new residential construction. The City of Cupertino also levies an affordable housing fee on new non-residential development. The burden of affordable housing is borne by many other sectors of the economy and society as well. 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). Additionally there are other federal grant and loan programs administered by the United States Department of Housing and Urban Development (HUD) and other federal agencies. The State of California Department of Housing and Community Development (HCD) 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 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 Housing Mitigation Program satisfies only a small percentage of the affordable housing needs in the City of Cupertino.

### **Non-Duplication: Residential and Non-Residential Fees**

Cupertino has adopted a Housing Mitigation Program fee for non-residential development and is considering modifying the fee, using a nexus analysis with a similar analytical framework as this residential nexus analysis. Under certain circumstances the two analyses could count some of the same jobs. KMA has conducted an analysis of potential double-counting of jobs; this analysis is contained in Appendix D and it concludes that no double-counting would occur, even if the residential fees increase to \$25.00 per square foot.

### **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's American Community Survey, California Employment Development Department (EDD) 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.

**APPENDIX A: MARKET SURVEY**

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## I. Introduction

One of the underlying components of the Residential Nexus Study is the identification of residential building prototypes that are expected to be developed in the City of Cupertino, both today and in the future, and what the market prices for those prototypes will be. These market prices 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 Appendix, KMA describes the residential building prototypes utilized for the analysis, summarizes the residential market data researched, and describes the market price point conclusions drawn therefrom.

## II. Residential Prototypes

A total of six market rate residential prototypes were selected by KMA and City staff for market pricing – four for-sale prototypes and two rental prototypes. The intent of the selected prototypes is to identify representative development prototypes that are envisioned to be developed in Cupertino in the future. It is noted that one prototype, the higher density rental apartments, is not currently being built in Cupertino, although there are examples from nearby communities. Cupertino expects to see this prototype built in the near future.

<b>Exhibit 13: Residential Prototypes</b>		
	<b>Lot Size / Density</b>	<b>Avg. Unit Size*</b>
<b>For-Sale Prototypes</b>		
1) Larger Single Family Detached Homes	9,500 sq. ft.	3,850 sq. ft.
2) Smaller Single Family Detached	7,100 sq. ft.	2,800 sq. ft.
3) Small-lot Single Family / Townhomes	10-20 du/acre	1,850 sq. ft.
4) Condominiums	25-35 du/acre	1,200 sq. ft.
<b>Rental Prototype</b>		
5) Lower Density Apartments	25-35 du/acre	1,000 sq. ft.
6) Higher Density Apartments	35-100 du/acre	1,000 sq. ft.

*\*Net sellable/rentable. Excluding garages and common areas.*

*Source: KMA in collaboration with City of Cupertino*

## III. Market Survey & Pricing Estimates

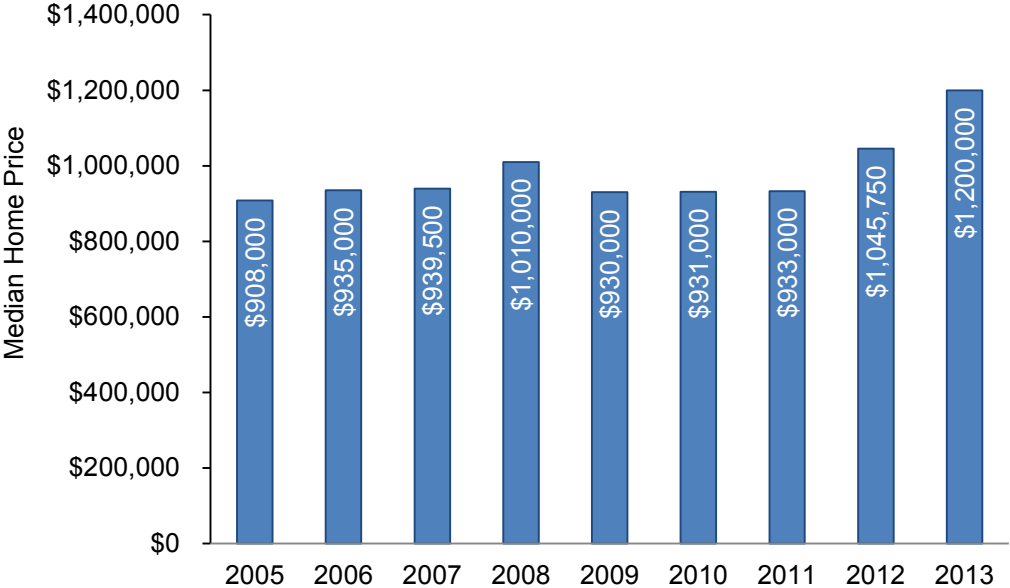
### a) Residential Building Activity

The housing market in Cupertino is very strong, fueled by the excellent public school system and proximity to high-tech employment. While the recession slowed the pace of new development, there have been a handful of new residential projects over the past few years. A slow pace of construction is to be expected in a City with such limited availability of developable land. There are several new residential developments in the pipeline at this time.

*Overview of For-Sale Market*

The strength of the residential market in Cupertino is evidenced by the stability of the median home price during the recession; the underlying fundamentals driving the housing market remained strong despite the recession. Between 2008 and 2009, there was a small 8% drop in the median home price followed by two years of stagnation. However, by the next year, 2012, the market surpassed its pre-recession price levels.

**Median Home Price Trends, City of Cupertino**



Source: Dataquick

In 2013, the median home price in Cupertino of \$1.2 million was almost double the median for Santa Clara County as a whole, at \$645,000. The median home price in Cupertino continued to rise through 2014, reaching \$1.435 million in November 2014.

*b) Recent Home Prices of Newer Units*

At the time of the market survey, there were no new for-sale projects being marketed in Cupertino. As a proxy for new home sales, KMA analyzed recent resale prices of homes built since 2005 and resold between 2012 and 2014.

Appendix A Table 1 presents a summary of the resale data. KMA categorized the single family detached sales data by lot size, to match the three detached prototypes (larger single family, smaller single family and small-lot single family). Condominiums are presented separately. KMA then calculated the median and average unit size and sales price, by lot size. Note that unit

sizes do not include garage space (for single family units) and represent net sellable area (for condominiums). The results are shown on Appendix A Table 1.

In Appendix A Table 2, KMA presents the unit size, bedroom counts, and resale data for select single family projects that are examples of the prototypes. In Appendix A Table 3, KMA presents detailed resale data for recent condominium projects in Cupertino.

*c) For-Sale Prototype Price Estimates*

The resale pricing of newer home developments combined with input from City staff and KMA's experience in other jurisdictions formed the basis for KMA's prototype price estimates. The prototype pricing estimates took into consideration the following factors:

- In general, newly built homes sell for a premium over re-sales, all else being equal;
- Typically, larger homes sell for a higher total price but a lower price per square foot than smaller homes. However, the Larger Single Family Detached home is assumed to be located West of 85, in the most desirable school district. The pricing of this prototype reflects a premium for this location, and therefore sells for more per square foot than the other ownership units.

Exhibit 14 below summarizes KMA's conclusions regarding current for-sale prototype unit size and pricing. Unit sizes for condominiums are presented on both a net and a gross basis. For Prototype 4, the net sellable unit size (1,200 square feet) is increased to gross unit size assuming 80% building efficiency. The City's methodology for fee calculation is based on gross building area for apartments and condominiums. Note that the City's current fee calculation for single family homes includes garage space; however, the City intends to change this practice and exclude garage space from the fee calculation going forward. Therefore, the nexus analysis is performed based on unit sizes excluding garages.

<b>Exhibit 14: For-Sale Prototype Price Estimates</b>				
	<b>Net Unit Size</b>	<b>Gross Unit Size</b>	<b>Price</b>	<b>Price PSF (net)</b>
Prototype 1: Larger Single Family Detached Homes	3,850 sf	n/a	\$2,600,000	\$675
Prototype 2: Smaller Single Family Detached	2,800 sf	n/a	\$1,750,000	\$625
Prototype 3: Small Lot Single Family / Townhomes	1,850 sf	n/a	\$1,110,000	\$600
Prototype 4: Condominium	1,200 sf	1,500 sf	\$800,000	\$667

*Source: KMA market study in collaboration with the City of Cupertino*

*d) Rental Housing Market*

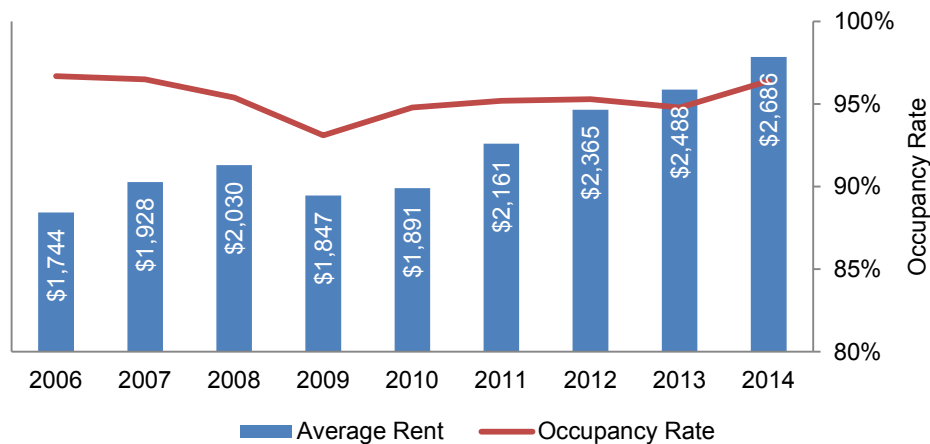
According to apartment market data source RealFacts, average apartment rents in Cupertino are the second highest in Santa Clara County, after Palo Alto. It is noted however that the RealFacts survey focuses on larger apartment developments and therefore does not include some small, older properties where rents would be lower than newer properties. Exhibit 15 below shows the Santa Clara County average apartment rents for second quarter, 2014.

<b>Exhibit 15: Santa Clara County Average Apartment Rents (Q2 2014)</b>		
1.	Palo Alto	\$3,203
2.	Cupertino	\$2,742
3.	Los Gatos	\$2,608
4.	Mountain View	\$2,588
5.	Santa Clara	\$2,443
6.	Sunnyvale	\$2,297
7.	Milpitas	\$2,236
8.	San Jose	\$2,169
9.	Campbell	\$1,952
10.	Gilroy	\$1,755

Source: RealFacts

In general, the apartment market throughout the Bay Area has enjoyed increasingly healthy conditions in the last few years, evidenced by rising rents and high occupancy rates.

**Average Apartment Rent & Occupancy Rate  
City of Cupertino**



Source: RealFacts

In the last few years Cupertino has seen activity in apartment development, with a few projects recently completed and several additional projects in the pipeline. Most existing and proposed apartment buildings are in the 25-35 dwelling units per acre range, three or four story buildings with structured parking.

The City anticipates that some apartments will be built in Cupertino at densities higher than 35 units to the acre. The City is considering allowing densities as high as 110 dwelling units per acre and eight stories on some key sites in the City. The Monte Bello project, which was built in 2003 as apartment units but then sold as condominiums, is one example of a higher density project in the City, with a density of 96 units to the acre.



KMA ran the nexus on both a lower density apartment (in the 25 - 35 dwellings unit per acre range, four-stories on a podium) and a higher density apartment (35 - 110 dwelling units per acre, up to 8 stories on a podium).

In order to estimate apartment rents for newly built units in Cupertino, KMA conducted a survey of the newer apartment developments in Cupertino, including the new Nineteen800 project, which was built as condominiums but is now being rented out. The results of the market rent survey are shown in Appendix A Table 4 and summarized below in Exhibit 16.

<b>Exhibit 16: Apartment Survey</b>			
	<b>Average Sq. Ft.</b>	<b>Average Rent</b>	<b>Rent/Sq. Ft.</b>
1-Bedroom	729 sf	\$2,531 - \$2,684	\$3.53 - \$3.71
2-Bedroom	1,165 sf	\$3,440 - \$3,724	\$2.97 - \$3.09
All 1 and 2-BR Units	1,013 sf	\$3,123 - 3,465	\$3.16 - \$3.41

*Does not include 3-bedroom units (very few units in survey).*

*Source: KMA Survey (October 2014)*

#### *e) Higher Density Apartments in Comparable Communities*

Apartments built at densities approaching 100 units to the acre are more expensive to develop than apartments in the 25-35 units to the acre range. Therefore, in order for the project to be feasible, developers must expect to achieve higher rents on these units. Because Cupertino does not have apartments built at this density, KMA looked at asking rents for new higher density apartment buildings in Sunnyvale and Mountain View. The results are shown in Appendix A Table 5. The asking rents for the higher density units average \$4.28 per square foot, or \$3,960 per month and an average of 941 square feet per unit.

#### *f) Rental Prototypes Rent Estimates*

Exhibit 17 presents KMA's unit size and rent estimates for the Cupertino rental prototypes. As with home prices, rents for newly built apartment projects will be higher than older properties, all else being equal. Net rentable unit sizes are converted to gross unit size assuming 80% building efficiency, to account for hallways, common areas, elevators, etc.

<b>Exhibit 17: Rental Prototype Rent Estimates</b>				
	<b>Net Sq. Ft.</b>	<b>Gross Sq. Ft.</b>	<b>Rent/Month</b>	<b>Rent/Net Sq. Ft.</b>
Prototype 5: Lower Density Apartment	1,000 sf	1,250	\$3,250	\$3.25
Prototype 6: Higher Density Apartment	1,000 sf	1,250	\$4,000	\$4.00

*Source: KMA survey (October 2014)*

## **IV. Market Survey Conclusions**

A full description of the prototypes, including examples of recent developments, average unit sizes, bedroom mix, parking ratios, and densities are shown in Appendix A Table 6. The prototypes are the starting point of the nexus analysis.

Appendix 1 Table 1  
Recent Sales of Single Family Homes  
Residential Nexus Analysis  
City of Cupertino, CA

Units Built Since 2005, Sold January 2012 - October 2014

	Unit Size	Lot Size	Number of BRs	Sales Price	Price/SF	Number of Records
<b>ALL DETACHED UNITS SOLD IN 2012-2014</b>						
Average	2,937 SF	7,514 SF	4.2	\$1,813,342	\$628	73
Median	2,882 SF	6,649 SF	4.0	\$1,700,000	\$638	73
<b>ALL DETACHED UNITS SOLD IN 2014</b>						
Average	3,436 SF	8,779 SF	4.1	\$2,292,405	\$678	21
Median	3,678 SF	9,600 SF	4.0	\$2,401,500	\$695	21
<b>Lots ≤ 5,000 SF</b>						
Average	1,955 SF	3,048 SF	3.2	\$1,230,071	\$638	14
Median	1,803 SF	2,302 SF	3.0	\$1,232,500	\$611	14
<b>Lots 5,000 SF - 8,500 SF</b>						
Average	2,616 SF	6,246 SF	4.2	\$1,597,414	\$631	29
Median	2,426 SF	6,218 SF	4.0	\$1,575,000	\$668	29
<b>Lots &gt; 8,500 SF</b>						
Average	3,705 SF	10,825 SF	4.5	\$2,294,267	\$621	30
Median	3,764 SF	10,000 SF	4.0	\$2,400,750	\$640	30
<b>Condominium Units</b>						
Average	1,287 SF	n/a	2.2	\$788,817	\$626	35
Median	1,158 SF	n/a	2.0	\$750,000	\$610	35

Does not include sales <\$250,000, or partial sales.  
Source: Dataquick.

**Appendix 1 Table 2**  
**Recent Sales of Newer Units in Single Family Developments**  
**Residential Nexus Analysis**  
**City of Cupertino, CA**

12-Oct-14

	Units	BD	BA	Lot SF	Net Unit SF	Garage	Sale Price	\$/SF	Sale Date
<b>Larger Single Family</b>									
<b>McClellan Development - Bollinger Road</b>									
7801 Bollinger Road	1	4.0	3.5	7,130	2,746	455	\$2,125,000	\$774	Nov 2013
7806 Bollinger Road	1	4.0	3.5	7,616	2,972	445	\$2,200,000	\$740	Dec 2013
2013									
<b>Smaller Single Family</b>									
<b>11508 Charsan Lane</b>	1	4.0	3.0	6,550	2,428	440	\$1,700,000	\$700	Feb 2013
McClellan Development									
2012									
<b>Small Single Family / Townhomes</b>									
<b>Las Palmas</b>									
10849 N Stelling Road	1	3.0	2.5		1,404		\$893,500	\$636	Nov 2013
<b>Stevens Canyon</b>									
10724 Stevens Canyon Road	1	3.0	2.5		2,128		\$1,201,000	\$564	Jul 2013
10728 Stevens Canyon Road	1	3.0	2.5		2,090		\$1,160,000	\$555	Jul 2013
<b>Murano</b>									
2005	1	3.0	3.0	4,998	1,818		\$1,225,000	\$674	June 2014
	1	3.0	2.5	1,742	1,788		\$1,240,000	\$694	Aug 2013
	1	3.0	2.0	4,947	1,820		\$1,280,000	\$703	June 2013
	1	3.0	2.5	2,426	1,533		\$1,290,000	\$841	May 2013
	1	3.0	4.0	1,913	1,948		\$1,180,000	\$606	Mar 2013
	1	3.0	2.5	1,764	1,788		\$1,040,000	\$582	July 2012
	1	3.0	4.0	1,774	2,003		\$1,079,500	\$539	June 2012
	1	3.0	2.5	1,742	1,788		\$968,000	\$541	May 2012
	1	4.0	3.0	<u>4,875</u>	<u>1,735</u>		<u>\$1,250,000</u>	<u>\$720</u>	March 2012
				2,414	1,852		\$1,103,500	\$598	

Source: Developers website, www.zillow.com and Dataquick, October 2014.

**Appendix A Table 3**  
**Recent Sales of Condominiums and Townhomes**  
**Residential Nexus Analysis**  
**City of Cupertino, CA**

12-Oct-14

	Units	BD	BA	Net SF	Sale Price	\$/SF	Sale Date
<b>Units Built Since 2005 and Sold Since January 2012</b>							
<b>Oak Park Terrace</b>	1	2.0	2.5	1,755	\$850,500	\$485	Mar 2013
10745 De Anza Blvd.	<u>1</u>	<u>2.0</u>	<u>2.0</u>	<u>1,178</u>	<u>\$900,000</u>	<u>\$764</u>	Aug 2014
Built 2008	2	2.0	2.3	1,467	\$875,250	\$597	
	1	3.0	2.0	1,460	\$891,000	\$610	May 2014
	<u>1</u>	<u>3.0</u>	<u>2.0</u>	<u>1,638</u>	<u>\$980,000</u>	<u>\$598</u>	Mar 2014
	2	3.0	2.0	1,549	\$935,500	\$604	
	<hr/>						
	4	2.5	2.1	1,508	\$905,375	\$600	
<b>Metropolitan</b>	1	1.0	1.0	1,106	\$500,000	\$452	Jan 2013
19503 Stevens Creek Blvd							
Built 2006	1	2.0	2.0	1,111	\$590,000	\$531	May 2012
	1	2.0	2.0	1,111	\$600,000	\$540	June 2012
	1	2.0	2.0	1,087	\$642,000	\$591	Sep 2013
	1	2.0	2.0	1,158	\$715,000	\$617	Sep 2013
	1	2.0	2.0	1,104	\$750,000	\$679	Feb 2014
	1	2.0	2.0	1,102	\$860,000	\$780	Sep 2014
	1	2.0	2.0	1,131	\$933,000	\$825	Aug 2014
	1	2.0	2.0	1,102	\$933,000	\$847	Apr 2014
	<u>1</u>	<u>2.0</u>	<u>2.5</u>	<u>1,589</u>	<u>\$775,100</u>	<u>\$488</u>	<u>Oct 2012</u>
	9	2.0	2.1	1,166	\$755,344	\$648	
	1	3.0	2.0	1,478	\$928,000	\$628	Aug 2012
	<u>1</u>	<u>3.0</u>	<u>2.0</u>	<u>1,502</u>	<u>\$855,000</u>	<u>\$569</u>	<u>July 2013</u>
	2	3.0	2.0	1,490	\$891,500	\$598	
	<hr/>						
	12	2.1	2.0	1,215	\$756,758	\$623	
<b>Adobe Terrace</b>	1	1.0	1.0	610	\$367,000	\$602	Jul 2012
20128 Stevens Creek Blvd							
Built 2008	1	2.0	2.0	919	\$720,000	\$783	Jun 2013
	<u>1</u>	<u>2.0</u>	<u>2.0</u>	<u>919</u>	<u>\$750,000</u>	<u>\$816</u>	<u>Apr 2014</u>
	2	2.0	2.0	919	\$735,000	\$800	
	<hr/>						
	3	1.7	1.7	816	\$612,333	\$750	

**Appendix A Table 3**  
**Recent Sales of Condominiums and Townhomes**  
**Residential Nexus Analysis**  
**City of Cupertino, CA**

12-Oct-14

	Units	BD	BA	Net SF	Sale Price	\$/SF	Sale Date
<b>Villagio</b>	1	1.0	1.0	743	\$637,000	\$857	May 2014
Town Center Lane							
Built 2006	1	2.0	2.0	1,125	\$580,000	\$516	Jun 2012
	1	2.0	2.0	1,230	\$605,000	\$492	Apr 2012
	1	2.0	2.0	1,230	\$670,000	\$545	Oct 2012
	1	2.0	2.0	1,125	\$725,000	\$644	Aug 2013
	1	2.0	2.0	1,116	\$730,000	\$654	Nov 2013
	1	2.0	2.0	1,116	\$750,000	\$672	Apr 2013
	<u>1</u>	<u>2.0</u>	<u>2.0</u>	<u>1,116</u>	<u>\$775,000</u>	<u>\$694</u>	<u>Mar 2014</u>
	7	2.0	2.0	1,151	\$690,714	\$600	
	1	3.0	2.0	1,350	\$882,500	\$654	Feb 2014
(Townhome)	<u>1</u>	<u>3.0</u>	<u>2.5</u>	<u>1,670</u>	<u>\$1,050,000</u>	<u>\$629</u>	<u>Mar 2013</u>
	2	3.0	2.3	1,510	\$966,250	\$640	
	10	2.1	2.0	1,182	\$740,450	\$626	
<b>Other</b>							
20183 Civic Park Lane	1	2.0	2.5	1,433	\$810,000	\$565	Nov 2013
10287 Park Green Lane	<u>1</u>	<u>2.0</u>	<u>2.5</u>	<u>1,433</u>	<u>\$680,000</u>	<u>\$475</u>	Jan 2012
	2	2.0	2.5	1,433	\$745,000	\$520	
10280 Park Green Lane	1	3.0	2.5	1,670	\$1,120,000	\$671	May 2013

Source: Dataquick, October 2014.

Appendix A Table 4  
 Asking Apartment Rents - Select Developments  
 Residential Nexus Analysis  
 City of Cupertino

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	<u>Net Sq. Ft.</u>	<u>Low Rent</u>	<u>High Rent</u>	<u>Low \$/SF</u>	<u>High \$/SF</u>
<b>Biltmore Apartments (new units only)</b>					
<i>10159 S Blaney Ave., Cupertino, CA 95014</i>					
1 BD/1 BA	622	\$2,738	\$3,018	\$4.40	\$4.85
1 BD/1 BA	747	\$2,310	\$2,750	\$3.09	\$3.68
2 BD/2 BA	1,087	\$3,724		\$3.43	
2 BD/2 BA	1,212	\$3,500	\$3,780	\$2.89	\$3.12
2 BD/2 BA	1,219	\$3,500	\$3,560	\$2.87	\$2.92
2 BD/2 BA	<u>1,335</u>	<u>\$3,500</u>	<u>\$3,651</u>	<u>\$2.62</u>	<u>\$2.73</u>
Average	1,037	\$3,212	\$3,352	\$3.22	\$3.46
<b>Nineteen800</b>					
<i>19770 Stevens Creek Blvd., Cupertino, CA 95014 (Built 2014)</i>					
2 BD/2 BA	1,219	\$3,240	\$3,433	\$2.66	\$2.82
2 BD/2 BA	1,264	\$3,584	\$3,726	\$2.84	\$2.95
2 BD/2 BA	1,314	\$3,630	\$4,033	\$2.76	\$3.07
2 BD/2 BA	1,281	\$3,768	\$3,900	\$2.94	\$3.04
2 BD/2 BA	1,387	\$3,868	\$4,290	\$2.79	\$3.09
2 BD/2 BA	1,310	\$3,479	\$3,630	\$2.66	\$2.77
2 BD/2 BA	1,443	\$4,363	\$4,536	\$3.02	\$3.14
3 BD/2 BA	1,402	\$4,564	\$4,794	\$3.26	\$3.42
3 BD/2 BA	1,523	\$4,799	\$4,987	\$3.15	\$3.27
3 BD/2 BA	1,590	\$6,320	\$6,481	\$3.98	\$4.08
3 BD/2 BA	1,690	\$5,344	\$5,495	\$3.16	\$3.25
2 BD/ 2 BA	<u>1,784</u>	<u>\$6,687</u>	<u>\$7,008</u>	<u>\$3.75</u>	<u>\$3.93</u>
Average	1,434	\$4,471	\$4,693	\$3.08	\$3.24
<b>Lyon Aviare</b>					
<i>20415 Via Pavisio, Cupertino, CA 95014 (Built 1997)</i>					
1 BD/ 1 BA	740	\$2,550		\$3.45	
1 BD/ 1 BA	829	\$2,650		\$3.20	
2 BD/ 2 BA	<u>1,005</u>	<u>\$3,320</u>		<u>\$3.30</u>	
Average	858	\$2,840		\$3.32	
<b>The Hamptons</b>					
<i>19500 Pruneridge Ave, Cupertino, CA 95014 (Built 1998)</i>					
1 BD/ 1 BA	734	\$2,455		\$3.34	
1 BD/ 1 BA	753	\$2,475	\$2,540	\$3.29	\$3.37
2 BD/ 2 BA	956	\$2,840		\$2.97	
2 BD/ 2 BA	987	\$2,825	\$2,880	\$2.86	\$2.92
2 BD/ 2 BA	1,062	\$3,005	\$3,055	\$2.83	\$2.88
2 BD/ 2 BA	1,112	\$3,110	\$3,250	\$2.80	\$2.92
2 BD/ 2 BA	1,132	\$3,240	\$3,310	\$2.86	\$2.92
3 BD/ 2 BA	1,211	\$3,355	\$3,510	\$2.77	\$2.90
3 BD/ 2 BA	1,275	\$3,415	\$3,440	\$2.68	\$2.70
3 BD/ 2 BA	<u>1,387</u>	<u>\$3,780</u>		<u>\$2.73</u>	
Average	1,061	\$3,050	\$3,141	\$2.91	\$2.94

Appendix A Table 4  
 Asking Apartment Rents - Select Developments  
 Residential Nexus Analysis  
 City of Cupertino

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	<u>Net Sq. Ft.</u>	<u>Low Rent</u>	<u>High Rent</u>	<u>Low \$/SF</u>	<u>High \$/SF</u>
<b>The Markham</b>					
<i>20800 Homestead Road, Cupertino, 95014</i>					
<i>(2011, new units and remodeled units)</i>					
1 BD/ 1 BA	750	\$2,473	\$2,523	\$3.30	\$3.36
1 BD/ 1 BA	795	\$2,466	\$2,591	\$3.10	\$3.26
1 BD/ 1 BA	660	\$2,397		\$3.63	
1 BD/ 1 BA	770	\$2,397		\$3.11	
2 BD/ 2 BA	1,092	\$3,440		\$3.15	
2 BD/ 2 BA	1,187	\$3,433	\$3,523	\$2.89	\$2.97
2 BD/ 2 BA	1,045	\$3,390		\$3.24	
2 BD/ 2 BA	1,025	\$3,231	\$3,367	\$3.15	\$3.28
2 BD/ 2 BA	930	\$3,187		\$3.43	
2 BD/ 2 BA	981	\$3,122	\$3,198	\$3.18	\$3.26
Average	924	\$2,954	\$3,040	\$3.22	\$3.23
<b>Arioso</b>					
<i>19608 Pruneridge Avenue, Cupertino, 95014 (Built 1999)</i>					
1 BD/ 1 BA	829	\$2,856	\$3,658	\$3.45	\$4.41
1 BD/ 1 BA	546	\$2,569	\$3,292	\$4.71	\$6.03
1 BD/ 1 BA	829	\$2,757	\$3,078	\$3.33	\$3.71
1 BD/ 1 BA	792	\$2,504	\$2,809	\$3.16	\$3.55
1 BD/ 1 BA	546	\$2,375	\$2,700	\$4.35	\$4.95
2 BD/ 2 BA	1,197	\$3,572	\$4,113	\$2.98	\$3.44
2 BD/ 2 BA	1,197	\$3,554	\$4,113	\$2.97	\$3.44
2 BD/ 2 BA	1,197	\$3,587	\$4,130	\$3.00	\$3.45
2 BD/ 2 BA	1,237	\$3,653	\$4,225	\$2.95	\$3.42
2 BD/ 2 BA	1,197	\$3,666	\$4,220	\$3.06	\$3.53
Average	957	\$3,109	\$3,634	\$3.40	\$3.99

Source: Project websites, ApartmentGuide.com, RealFacts (October 2014)

**Appendix A Table 5**  
**Asking Apartment Rents - New Higher Density Projects in Neighboring Towns**  
**Residential Nexus Analysis**  
**City of Cupertino**

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	<u>Net Sq. Ft.</u>	<u>Low Rent</u>	<u>High Rent</u>	<u>Low \$/SF</u>	<u>High \$/SF</u>
<b>Madera Apartments - Mountain View (Prometheus)</b>					
about 60 dua					
1 BD/1 BA	745	\$3,400	\$3,591	\$4.56	\$4.82
1 BD/1 BA	760	\$3,604	\$3,679	\$4.74	\$4.84
1 BD/1 BA	810	\$3,708	\$3,758	\$4.58	\$4.64
1 BD/1 BA	850	\$3,507	\$3,642	\$4.13	\$4.28
1 BD/1 BA	860	\$3,648	\$3,988	\$4.24	\$4.64
1 BD/1 BA	875	\$3,720		\$4.25	
1 BD/1 BA	885	\$3,556		\$4.02	
1 BD/1 BA	890	\$3,871	\$3,946	\$4.35	\$4.43
1 BD/1 BA	900	\$3,746		\$4.16	
1 BD/1 BA	830	\$3,400	\$3,781	\$4.10	\$4.56
1 BD/1 BA	900	\$3,774		\$4.19	
2 BD/2 BA	1,080	\$4,329	\$4,914	\$4.01	\$4.55
2 BD/2 BA	1,110	\$4,575	\$5,070	\$4.12	\$4.57
2 BD/2 BA	1,135	\$4,528	\$4,930	\$3.99	\$4.34
2 BD/2 BA	1,135	\$4,779		\$4.21	
2 BD/2 BA	1,135	\$4,500	\$4,775	\$3.96	\$4.21
2 BD/2 BA	1,170	\$4,605	\$5,120	\$3.94	\$4.38
2 BD/2 BA	1,230	\$4,763	\$5,178	\$3.87	\$4.21
2 BD/2 BA	1,260	\$4,884	\$5,287	\$3.88	\$4.20
2 BD/2 BA	1,270	\$4,647	\$4,841	\$3.66	\$3.81
2 BD/2 BA	1,270	\$4,647		\$3.66	
2 BD/2 BA	<u>1,340</u>	<u>\$5,897</u>		<u>\$4.40</u>	
Average	1,020	\$4,186	\$4,433	\$4.14	\$4.43

**Carmel the Village - Mountain View (Carmel Partners)**

about 60 dua

Studio	537	\$2,845		\$5.30	
Studio	549	\$2,755		\$5.02	
1 BD/1 BA	693	\$3,065		\$4.42	
1 BD/1 BA	678	\$3,280		\$4.84	
1 BD/1 BA	693	\$3,115		\$4.49	
1 BD/1 BA	693	\$3,165	\$3,255	\$4.57	\$4.70
1 BD/1 BA	585	\$2,985	\$3,075	\$5.10	\$5.26
1 BD/1 BA	585	\$3,035	\$3,125	\$5.19	\$5.34
2 BD/2 BA	1,054	\$4,310		\$4.09	
2 BD/2 BA	1,434	\$5,860		\$4.09	
2 BD/2 BA	1,355	\$5,125		\$3.78	



**Appendix A Table 5**  
**Asking Apartment Rents - New Higher Density Projects in Neighboring Towns**  
**Residential Nexus Analysis**  
**City of Cupertino**

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	<u>Net Sq. Ft.</u>	<u>Low Rent</u>	<u>High Rent</u>	<u>Low \$/SF</u>	<u>High \$/SF</u>
<b>Carmel the Village - Mountain View (Carmel Partners) cont'd</b>					
2 BD/2 BA	1,098	\$4,660		\$4.24	
2 BD/2 BA	1,080	\$4,580		\$4.24	
2 BD/2 BA	<u>1,054</u>	<u>\$4,560</u>		<u>\$4.33</u>	
Average	974	\$3,810	\$3,152	\$4.55	\$5.10

**Loft House - Sunnyvale (Carmel Partners)**

84 dua

1 BD/1 BA	782	\$3,345		\$4.28	
1 BD/1 BA	727	\$3,170		\$4.36	
1 BD/1 BA	721	\$3,220		\$4.47	
1 BD/1 BA	675	\$3,170		\$4.70	
1 BD/1 BA	727	\$3,245		\$4.46	
1 BD/1 BA	681	\$3,245		\$4.77	
1 BD/1 BA	727	\$3,245		\$4.46	
1 BD/1 BA	727	\$3,345		\$4.60	
1 BD/1 BA	721	\$3,395		\$4.71	
1 BD/1 BA	727	\$3,345		\$4.60	
2 BD/2 BA	1,011	\$5,920		\$5.86	
2 BD/2 BA	1,011	\$5,720		\$5.66	
2 BD/2 BA	1,065	\$3,820		\$3.59	
2 BD/2 BA	1,053	\$3,895		\$3.70	
2 BD/2 BA	1,107	\$4,095		\$3.70	
2 BD/2 BA	1,053	\$3,995		\$3.79	
2 BD/2 BA	1,053	\$3,895		\$3.70	
2 BD/2 BA	1,053	\$3,895		\$3.70	
2 BD/2 BA	1,053	\$3,995		\$3.79	
2 BD/2 BA	1,096	\$4,120		\$3.76	
2 BD/2 BA	1,053	\$3,970		\$3.77	
2 BD/2 BA	1,053	\$4,070		\$3.87	
2 BD/2 BA	<u>1,116</u>	<u>\$4,070</u>		<u>\$3.65</u>	
Average	968	\$3,834		\$4.26	

A  
**Residential Prototypes with Market Sales Prices/Rents**  
**Residential Nexus Analysis**  
**City of Cupertino, CA**

Prototype	Larger Single Family	Smaller Single Family	Small Lot Single Family / Townhome	Condominium	Lower Density Rental Apartments	Higher Density Rental Apartments
<b>Examples</b>	20840 McClellan Road: Subdivision Approved 10114 Crescent Court: 2007 Bollinger Road: 2013	Blaney Subdivision: 2010 Charsan Lane: 2012	Foothill Blvd Live/Work: approved Murano Circle: 2005 Las Palmas: 2010 Stevens Canyon: 2007	Metropolitan: 2007 Villagio: 2006 Oak Park Village: 2008 Nineteen800: 2014	The Markham (formerly Villa Serra) Biltmore Adjacency: 2014 Main Street: Approved N. Foothill Blvd: Under Review	Monte Bello: 2003 (sold as condos) The Hamptons: see note
<b>Typical Building Type</b>	2-story homes	2-story homes	2-3 story homes	3 to 4-story on a podium	4-story on a podium	Up to 8-story on a podium
<b>Typical Net Unit Size (SF: excl. garage)<sup>1</sup></b>	3,850 SF	2,800 SF	1,850 SF	1,200 SF	1,000 SF	1,000 SF
<b>Typical Gross Unit Size (SF: incl. garage)<sup>1</sup></b>	4,270 SF	3,220 SF	2,270 SF	1,500 SF	1,250 SF	1,250 SF
<b>Typical Number of Bedrooms</b>	5 BR	4 BR	3 BR	2 and 3 BR units	1, 2 and 3 BR units	1, 2 and 3 BR units
<b>Parking Requirement</b>	4 per unit (2 car garage)	4 per unit (2 car garage)	2.8 per unit (2 car garage)	2 per unit (1 in garage)	2 per unit (1 in garage)	2 per unit (1 in garage)
<b>Typical Density (Du/acre)</b>	Lot Size: 9,500 sf 1 - 5 dua	Lot Size: 7,100 sf 4 - 6 dua	10 - 20 dua	25 - 35 dua	25 - 35 dua	35 - 110 dua
<b>Estimated Market Sales Price/ Rent per square foot</b>	\$2,600,000 \$675	\$1,750,000 \$625	\$1,110,000 \$600	\$800,000 \$667	\$3,250 \$3.25	\$4,000 \$4.00
<b>Notes</b>	Typically Located West of Highway 85				Rent data from Nineteen800 was included in analysis.	The Hamptons is a proposed Housing Element Site. The EIR was studied at up to 110 dua for this site.

1. Single family homes (SF) presented with and without garages (420 sf). Condominiums and apartments are presented as net rentable and gross building area, assuming an 80% building efficiency.

**APPENDIX B: SUPPORTING TECHNICAL TABLES**

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**APPENDIX B - TABLE 1  
 WORKER OCCUPATION DISTRIBUTION, 2013  
 SERVICES TO HOUSEHOLDS EARNING \$100,000 TO \$150,000  
 RESIDENTIAL NEXUS STUDY  
 CUPERTINO, CA**

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<b>Worker Occupation Distribution<sup>1</sup>          Services to Households Earning          \$100,000 to \$150,000</b>
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**Major Occupations (2% or more)**

Management Occupations	3.9%
Business and Financial Operations Occupations	3.5%
Education, Training, and Library Occupations	3.7%
Healthcare Practitioners and Technical Occupations	8.2%
Healthcare Support Occupations	4.4%
Food Preparation and Serving Related Occupations	15.9%
Building and Grounds Cleaning and Maintenance Occupations	5.7%
Personal Care and Service Occupations	5.1%
Sales and Related Occupations	15.4%
Office and Administrative Support Occupations	15.3%
Installation, Maintenance, and Repair Occupations	3.5%
Transportation and Material Moving Occupations	4.3%
All Other Worker Occupations - Services to Households Earning \$100,000 to \$150,000	<u>11.1%</u>
<b>INDUSTRY TOTAL</b>	<b>100.0%</b>

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<sup>1</sup> 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.

**APPENDIX B - TABLE 2**  
**AVERAGE ANNUAL WORKER COMPENSATION, 2014**  
**SERVICES TO HOUSEHOLDS EARNING \$100,000 TO \$150,000**  
**RESIDENTIAL NEXUS STUDY**  
**CUPERTINO, CA**

Occupation <sup>3</sup>	2014 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total , Resident Services Workers
<i>Management Occupations</i>			
Chief Executives	\$218,600	3.3%	0.1%
General and Operations Managers	\$150,100	33.4%	1.3%
Sales Managers	\$173,400	5.1%	0.2%
Administrative Services Managers	\$116,000	4.0%	0.2%
Financial Managers	\$162,300	7.6%	0.3%
Food Service Managers	\$55,900	6.2%	0.2%
Medical and Health Services Managers	\$139,800	7.3%	0.3%
Property, Real Estate, and Community Association Managers	\$75,700	9.1%	0.4%
All other Management Occupations (Avg. All Categories)	<u>\$157,100</u>	<u>23.9%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$141,400</b>	<b>100.0%</b>	<b>3.9%</b>
<i>Business and Financial Operations Occupations</i>			
Human Resources Specialists	\$84,400	5.2%	0.2%
Labor Relations Specialists	\$61,700	3.6%	0.1%
Management Analysts	\$104,600	5.3%	0.2%
Training and Development Specialists	\$83,800	3.8%	0.1%
Market Research Analysts and Marketing Specialists	\$104,000	6.2%	0.2%
Business Operations Specialists, All Other	\$95,400	12.2%	0.4%
Accountants and Auditors	\$87,800	19.8%	0.7%
Financial Analysts	\$112,200	5.7%	0.2%
Personal Financial Advisors	\$90,300	7.1%	0.2%
Loan Officers	\$82,700	6.2%	0.2%
All Other Business and Financial Operations Occupations (Avg. All Categories)	<u>\$91,200</u>	<u>24.9%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$91,500</b>	<b>100.0%</b>	<b>3.5%</b>
<i>Education, Training, and Library Occupations</i>			
Health Specialties Teachers, Postsecondary	\$76,200	3.1%	0.1%
Vocational Education Teachers, Postsecondary	\$63,100	4.3%	0.2%
Postsecondary Teachers, All Other	\$67,500	3.5%	0.1%
Preschool Teachers, Except Special Education	\$39,900	11.2%	0.4%
Elementary School Teachers, Except Special Education	\$70,100	7.1%	0.3%
Middle School Teachers, Except Special and Career/Technical Education	\$68,000	3.2%	0.1%
Secondary School Teachers, Except Special and Career/Technical Education	\$73,500	4.9%	0.2%
Self-Enrichment Education Teachers	\$45,200	8.4%	0.3%
Substitute Teachers	\$40,200	3.5%	0.1%
Teachers and Instructors, All Other, Except Substitute Teachers	\$61,900	6.5%	0.2%
Teacher Assistants	\$30,200	13.1%	0.5%
All Other Education, Training, and Library Occupations (Avg. All Categories)	<u>\$58,300</u>	<u>31.3%</u>	<u>1.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$54,000</b>	<b>100.0%</b>	<b>3.7%</b>

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**APPENDIX B - TABLE 2  
AVERAGE ANNUAL WORKER COMPENSATION, 2014  
SERVICES TO HOUSEHOLDS EARNING \$100,000 TO \$150,000  
RESIDENTIAL NEXUS STUDY  
CUPERTINO, CA**

Occupation <sup>3</sup>	2014 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total , Resident Services Workers
<i>Healthcare Practitioners and Technical Occupations</i>			
Pharmacists	\$135,400	4.4%	0.4%
Physicians and Surgeons, All Other	\$147,700	4.5%	0.4%
Registered Nurses	\$124,600	29.6%	2.4%
Dental Hygienists	\$96,800	4.0%	0.3%
Pharmacy Technicians	\$46,300	6.0%	0.5%
Licensed Practical and Licensed Vocational Nurses	\$58,800	8.4%	0.7%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Categories)	<u>\$108,400</u>	<u>43.0%</u>	<u>3.5%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$107,800</b>	<b>100.0%</b>	<b>8.2%</b>
<i>Healthcare Support Occupations</i>			
Home Health Aides	\$25,100	16.9%	0.7%
Nursing Assistants	\$34,400	31.3%	1.4%
Massage Therapists	\$33,200	3.4%	0.2%
Dental Assistants	\$41,500	11.7%	0.5%
Medical Assistants	\$39,100	19.5%	0.9%
All Other Healthcare Support Occupations (Avg. All Categories)	<u>\$37,000</u>	<u>17.1%</u>	<u>0.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$35,000</b>	<b>100.0%</b>	<b>4.4%</b>
<i>Food Preparation and Serving Related Occupations</i>			
First-Line Supervisors of Food Preparation and Serving Workers	\$35,400	7.0%	1.1%
Cooks, Fast Food	\$20,500	4.7%	0.7%
Cooks, Restaurant	\$25,900	9.1%	1.5%
Food Preparation Workers	\$23,000	6.5%	1.0%
Bartenders	\$25,200	4.9%	0.8%
Combined Food Preparation and Serving Workers, Including Fast Food	\$22,200	26.3%	4.2%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$21,000	3.6%	0.6%
Waiters and Waitresses	\$23,000	20.9%	3.3%
Dining Room and Cafeteria Attendants and Bartender Helpers	\$19,900	3.2%	0.5%
Dishwashers	\$20,500	4.1%	0.7%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$20,200	3.2%	0.5%
All Other Food Preparation and Serving Related Occupations (Avg. All Categories)	<u>\$23,900</u>	<u>6.5%</u>	<u>1.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$23,600</b>	<b>100.0%</b>	<b>15.9%</b>

**APPENDIX B - TABLE 2  
AVERAGE ANNUAL WORKER COMPENSATION, 2014  
SERVICES TO HOUSEHOLDS EARNING \$100,000 TO \$150,000  
RESIDENTIAL NEXUS STUDY  
CUPERTINO, CA**

Occupation <sup>3</sup>	2014 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total , Resident Services Workers
<i>Building and Grounds Cleaning and Maintenance Occupations</i>			
First-Line Supervisors of Housekeeping and Janitorial Workers	\$50,400	3.4%	0.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$27,500	51.2%	2.9%
Maids and Housekeeping Cleaners	\$28,800	11.8%	0.7%
Landscaping and Groundskeeping Workers	\$31,600	24.9%	1.4%
All Other Building and Grounds Cleaning and Maintenance Occupations (Avg. All Categories)	<u>\$30,000</u>	<u>8.7%</u>	<u>0.5%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$29,700</b>	<b>100.0%</b>	<b>5.7%</b>
<i>Personal Care and Service Occupations</i>			
First-Line Supervisors of Personal Service Workers	\$45,500	3.8%	0.2%
Nonfarm Animal Caretakers	\$29,000	4.9%	0.3%
Amusement and Recreation Attendants	\$24,600	6.5%	0.3%
Hairdressers, Hairstylists, and Cosmetologists	\$23,900	18.1%	0.9%
Manicurists and Pedicurists	\$19,300	3.9%	0.2%
Childcare Workers	\$29,600	13.0%	0.7%
Personal Care Aides	\$26,600	22.2%	1.1%
Fitness Trainers and Aerobics Instructors	\$53,300	5.3%	0.3%
Recreation Workers	\$28,100	4.7%	0.2%
All Other Personal Care and Service Occupations (Avg. All Categories)	<u>\$29,000</u>	<u>17.6%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$28,800</b>	<b>100.0%</b>	<b>5.1%</b>
<i>Sales and Related Occupations</i>			
First-Line Supervisors of Retail Sales Workers	\$48,400	10.4%	1.6%
Cashiers	\$25,800	26.9%	4.1%
Counter and Rental Clerks	\$34,400	3.7%	0.6%
Retail Salespersons	\$27,100	40.8%	6.3%
Sales Representatives, Services, All Other	\$90,900	3.1%	0.5%
All Other Sales and Related Occupations (Avg. All Categories)	<u>\$54,200</u>	<u>15.1%</u>	<u>2.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$35,300</b>	<b>100.0%</b>	<b>15.4%</b>
<i>Office and Administrative Support Occupations</i>			
First-Line Supervisors of Office and Administrative Support Workers	\$67,300	6.7%	1.0%
Bookkeeping, Accounting, and Auditing Clerks	\$49,300	7.2%	1.1%
Customer Service Representatives	\$46,500	9.5%	1.5%
Receptionists and Information Clerks	\$34,600	7.9%	1.2%
Stock Clerks and Order Fillers	\$28,300	12.0%	1.8%
Executive Secretaries and Executive Administrative Assistants	\$65,400	3.1%	0.5%
Medical Secretaries	\$44,900	4.7%	0.7%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$43,300	10.1%	1.6%
Office Clerks, General	\$39,500	13.4%	2.0%
All Other Office and Administrative Support Occupations (Avg. All Categories)	<u>\$45,400</u>	<u>25.5%</u>	<u>3.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$44,000</b>	<b>100.0%</b>	<b>15.3%</b>

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**APPENDIX B - TABLE 2  
 AVERAGE ANNUAL WORKER COMPENSATION, 2014  
 SERVICES TO HOUSEHOLDS EARNING \$100,000 TO \$150,000  
 RESIDENTIAL NEXUS STUDY  
 CUPERTINO, CA**

Occupation <sup>3</sup>	2014 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total , Resident Services Workers
<i>Installation, Maintenance, and Repair Occupations</i>			
First-Line Supervisors of Mechanics, Installers, and Repairers	\$77,700	7.9%	0.3%
Telecommunications Equipment Installers and Repairers, Except Line Installers	\$65,500	3.8%	0.1%
Automotive Body and Related Repairers	\$47,800	5.7%	0.2%
Automotive Service Technicians and Mechanics	\$51,600	21.9%	0.8%
Tire Repairers and Changers	\$30,300	3.4%	0.1%
Maintenance and Repair Workers, General	\$49,000	31.6%	1.1%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories)	<u>\$54,700</u>	<u>25.7%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$53,200</b>	<b>100.0%</b>	<b>3.5%</b>
<i>Transportation and Material Moving Occupations</i>			
Bus Drivers, School or Special Client	\$36,100	6.5%	0.3%
Driver/Sales Workers	\$35,200	8.9%	0.4%
Heavy and Tractor-Trailer Truck Drivers	\$46,600	9.9%	0.4%
Light Truck or Delivery Services Drivers	\$36,500	11.3%	0.5%
Taxi Drivers and Chauffeurs	\$31,500	3.7%	0.2%
Parking Lot Attendants	\$21,600	4.9%	0.2%
Automotive and Watercraft Service Attendants	\$27,000	3.1%	0.1%
Cleaners of Vehicles and Equipment	\$25,800	7.9%	0.3%
Laborers and Freight, Stock, and Material Movers, Hand	\$31,200	21.5%	0.9%
Packers and Packagers, Hand	\$23,600	7.6%	0.3%
All Other Transportation and Material Moving Occupations (Avg. All Categories)	<u>\$35,600</u>	<u>14.8%</u>	<u>0.6%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$33,100</b>	<b>100.0%</b>	<b>4.3%</b>
			<b>88.9%</b>

<sup>1</sup> 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.

<sup>2</sup> Occupation percentages are based on the 2013 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2013 Occupational Employment Survey data for Santa Clara and San Benito Counties, updated by the California Employment Development Department to 2014 wage levels.

<sup>3</sup> Including occupations representing 3% or more of the major occupation group.



**APPENDIX B - TABLE 3  
 WORKER OCCUPATION DISTRIBUTION, 2013  
 SERVICES TO HOUSEHOLDS EARNING MORE THAN \$150,000  
 RESIDENTIAL NEXUS STUDY  
 CUPERTINO, CA**

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<b>Worker Occupation Distribution<sup>1</sup>          Services to Households Earning          More Than \$150,000</b>
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**Major Occupations (2% or more)**

Management Occupations	4.0%
Business and Financial Operations Occupations	3.6%
Education, Training, and Library Occupations	5.4%
Healthcare Practitioners and Technical Occupations	7.2%
Healthcare Support Occupations	3.8%
Food Preparation and Serving Related Occupations	14.9%
Building and Grounds Cleaning and Maintenance Occupations	5.9%
Personal Care and Service Occupations	5.3%
Sales and Related Occupations	15.6%
Office and Administrative Support Occupations	15.3%
Installation, Maintenance, and Repair Occupations	3.3%
Transportation and Material Moving Occupations	4.4%
All Other Worker Occupations - Services to Households Earning More Than \$150,000	<u>11.2%</u>
<b>INDUSTRY TOTAL</b>	<b>100.0%</b>

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<sup>1</sup> 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.

**APPENDIX B - TABLE 4  
AVERAGE ANNUAL WORKER COMPENSATION, 2014  
SERVICES TO HOUSEHOLDS EARNING MORE THAN \$150,000  
RESIDENTIAL NEXUS STUDY  
CUPERTINO, CA**

Occupation <sup>3</sup>	2014 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total , Resident Services Workers
<i>Page 1 of 4</i>			
<i>Management Occupations</i>			
Chief Executives	\$218,600	3.4%	0.1%
General and Operations Managers	\$150,100	33.3%	1.3%
Sales Managers	\$173,400	4.9%	0.2%
Administrative Services Managers	\$116,000	4.1%	0.2%
Financial Managers	\$162,300	7.5%	0.3%
Education Administrators, Postsecondary	\$110,300	3.7%	0.1%
Food Service Managers	\$55,900	5.7%	0.2%
Medical and Health Services Managers	\$139,800	6.2%	0.2%
Property, Real Estate, and Community Association Managers	\$75,700	7.8%	0.3%
Social and Community Service Managers	\$80,200	3.0%	0.1%
Managers, All Other	\$164,700	3.1%	0.1%
All other Management Occupations (Avg. All Categories)	<u>\$157,100</u>	<u>17.3%</u>	<u>0.7%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>4.0%</b>
<i>Business and Financial Operations Occupations</i>			
Human Resources Specialists	\$84,400	5.1%	0.2%
Labor Relations Specialists	\$61,700	3.5%	0.1%
Management Analysts	\$104,600	5.4%	0.2%
Training and Development Specialists	\$83,800	4.1%	0.1%
Market Research Analysts and Marketing Specialists	\$104,000	6.2%	0.2%
Business Operations Specialists, All Other	\$95,400	12.7%	0.5%
Accountants and Auditors	\$87,800	19.2%	0.7%
Financial Analysts	\$112,200	5.7%	0.2%
Personal Financial Advisors	\$90,300	7.1%	0.3%
Loan Officers	\$82,700	6.0%	0.2%
All Other Business and Financial Operations Occupations (Avg. All Categories)	<u>\$91,200</u>	<u>25.1%</u>	<u>0.9%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>3.6%</b>
<i>Education, Training, and Library Occupations</i>			
Health Specialties Teachers, Postsecondary	\$76,200	3.3%	0.2%
Vocational Education Teachers, Postsecondary	\$63,100	4.4%	0.2%
Postsecondary Teachers, All Other	\$67,500	3.8%	0.2%
Preschool Teachers, Except Special Education	\$39,900	10.9%	0.6%
Elementary School Teachers, Except Special Education	\$70,100	6.8%	0.4%
Middle School Teachers, Except Special and Career/Technical Education	\$68,000	3.1%	0.2%
Secondary School Teachers, Except Special and Career/Technical Education	\$73,500	4.7%	0.3%
Self-Enrichment Education Teachers	\$45,200	7.9%	0.4%
Substitute Teachers	\$40,200	3.3%	0.2%
Teachers and Instructors, All Other, Except Substitute Teachers	\$61,900	6.5%	0.4%
Teacher Assistants	\$30,200	12.6%	0.7%
All Other Education, Training, and Library Occupations (Avg. All Categories)	<u>\$58,300</u>	<u>32.5%</u>	<u>1.8%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>5.4%</b>

**APPENDIX B - TABLE 4  
 AVERAGE ANNUAL WORKER COMPENSATION, 2014  
 SERVICES TO HOUSEHOLDS EARNING MORE THAN \$150,000  
 RESIDENTIAL NEXUS STUDY  
 CUPERTINO, CA**

Occupation <sup>3</sup>	2014 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total , Resident Services Workers
<i>Healthcare Practitioners and Technical Occupations</i>			
Pharmacists	\$135,400	5.0%	0.4%
Physicians and Surgeons, All Other	\$147,700	4.4%	0.3%
Registered Nurses	\$124,600	28.9%	2.1%
Dental Hygienists	\$96,800	3.8%	0.3%
Pharmacy Technicians	\$46,300	6.8%	0.5%
Licensed Practical and Licensed Vocational Nurses	\$58,800	8.2%	0.6%
All Other Healthcare Practitioners and Technical Occupations (Avg. All Categories)	<u>\$108,400</u>	<u>42.8%</u>	<u>3.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$107,400</b>	<b>100.0%</b>	<b>7.2%</b>
<i>Healthcare Support Occupations</i>			
Home Health Aides	\$25,100	17.4%	0.7%
Nursing Assistants	\$34,400	31.0%	1.2%
Massage Therapists	\$33,200	3.5%	0.1%
Dental Assistants	\$41,500	11.5%	0.4%
Medical Assistants	\$39,100	19.1%	0.7%
All Other Healthcare Support Occupations (Avg. All Categories)	<u>\$37,000</u>	<u>17.5%</u>	<u>0.7%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$34,900</b>	<b>100.0%</b>	<b>3.8%</b>
<i>Food Preparation and Serving Related Occupations</i>			
First-Line Supervisors of Food Preparation and Serving Workers	\$35,400	7.0%	1.0%
Cooks, Fast Food	\$20,500	4.7%	0.7%
Cooks, Restaurant	\$25,900	9.0%	1.3%
Food Preparation Workers	\$23,000	6.7%	1.0%
Bartenders	\$25,200	5.0%	0.7%
Combined Food Preparation and Serving Workers, Including Fast Food	\$22,200	26.2%	3.9%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$21,000	3.7%	0.6%
Waiters and Waitresses	\$23,000	20.8%	3.1%
Dining Room and Cafeteria Attendants and Bartender Helpers	\$19,900	3.2%	0.5%
Dishwashers	\$20,500	4.1%	0.6%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$20,200	3.1%	0.5%
All Other Food Preparation and Serving Related Occupations (Avg. All Categories)	<u>\$23,900</u>	<u>6.7%</u>	<u>1.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$23,600</b>	<b>100.0%</b>	<b>14.9%</b>

**APPENDIX B - TABLE 4**  
**AVERAGE ANNUAL WORKER COMPENSATION, 2014**  
**SERVICES TO HOUSEHOLDS EARNING MORE THAN \$150,000**  
**RESIDENTIAL NEXUS STUDY**  
**CUPERTINO, CA**

Occupation <sup>3</sup>	2014 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total Resident Services Workers
<i>Building and Grounds Cleaning and Maintenance Occupations</i>			
First-Line Supervisors of Housekeeping and Janitorial Workers	\$50,400	3.4%	0.2%
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	\$52,300	3.0%	0.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$27,500	51.7%	3.0%
Maids and Housekeeping Cleaners	\$28,800	10.9%	0.6%
Landscaping and Groundskeeping Workers	\$31,600	25.2%	1.5%
All Other Building and Grounds Cleaning and Maintenance Occupations (Avg. All Categories)	<u>\$30,000</u>	<u>5.8%</u>	<u>0.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$30,300</b>	<b>100.0%</b>	<b>5.9%</b>
<i>Personal Care and Service Occupations</i>			
First-Line Supervisors of Personal Service Workers	\$45,500	3.8%	0.2%
Nonfarm Animal Caretakers	\$29,000	5.2%	0.3%
Ushers, Lobby Attendants, and Ticket Takers	\$20,100	3.0%	0.2%
Amusement and Recreation Attendants	\$24,600	7.0%	0.4%
Hairdressers, Hairstylists, and Cosmetologists	\$23,900	15.6%	0.8%
Manicurists and Pedicurists	\$19,300	3.3%	0.2%
Childcare Workers	\$29,600	16.9%	0.9%
Personal Care Aides	\$26,600	20.4%	1.1%
Fitness Trainers and Aerobics Instructors	\$53,300	5.7%	0.3%
Recreation Workers	\$28,100	4.7%	0.2%
All Other Personal Care and Service Occupations (Avg. All Categories)	<u>\$29,000</u>	<u>14.5%</u>	<u>0.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$28,900</b>	<b>100.0%</b>	<b>5.3%</b>
<i>Sales and Related Occupations</i>			
First-Line Supervisors of Retail Sales Workers	\$48,400	10.5%	1.6%
Cashiers	\$25,800	27.0%	4.2%
Counter and Rental Clerks	\$34,400	3.5%	0.5%
Retail Salespersons	\$27,100	41.4%	6.5%
Securities, Commodities, and Financial Services Sales Agents	\$94,600	3.0%	0.5%
Sales Representatives, Services, All Other	\$90,900	3.2%	0.5%
All Other Sales and Related Occupations (Avg. All Categories)	<u>\$54,200</u>	<u>11.4%</u>	<u>1.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$36,400</b>	<b>100.0%</b>	<b>15.6%</b>
<i>Office and Administrative Support Occupations</i>			
First-Line Supervisors of Office and Administrative Support Workers	\$67,300	6.7%	1.0%
Bookkeeping, Accounting, and Auditing Clerks	\$49,300	7.2%	1.1%
Customer Service Representatives	\$46,500	9.6%	1.5%
Receptionists and Information Clerks	\$34,600	7.3%	1.1%
Stock Clerks and Order Fillers	\$28,300	12.2%	1.9%
Executive Secretaries and Executive Administrative Assistants	\$65,400	3.3%	0.5%
Medical Secretaries	\$44,900	4.0%	0.6%
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$43,300	10.5%	1.6%
Office Clerks, General	\$39,500	13.7%	2.1%
All Other Office and Administrative Support Occupations (Avg. All Categories)	<u>\$45,400</u>	<u>25.6%</u>	<u>3.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$44,000</b>	<b>100.0%</b>	<b>15.3%</b>

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**APPENDIX B - TABLE 4  
AVERAGE ANNUAL WORKER COMPENSATION, 2014  
SERVICES TO HOUSEHOLDS EARNING MORE THAN \$150,000  
RESIDENTIAL NEXUS STUDY  
CUPERTINO, CA**

Occupation <sup>3</sup>	2014 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total , Resident Services Workers
<i>Installation, Maintenance, and Repair Occupations</i>			
First-Line Supervisors of Mechanics, Installers, and Repairers	\$77,700	7.9%	0.3%
Telecommunications Equipment Installers and Repairers, Except Line Installers	\$65,500	3.4%	0.1%
Automotive Body and Related Repairers	\$47,800	5.6%	0.2%
Automotive Service Technicians and Mechanics	\$51,600	22.3%	0.7%
Tire Repairers and Changers	\$30,300	3.6%	0.1%
Maintenance and Repair Workers, General	\$49,000	30.7%	1.0%
All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories)	<u>\$54,700</u>	<u>26.4%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$53,200</b>	<b>100.0%</b>	<b>3.3%</b>
<i>Transportation and Material Moving Occupations</i>			
Bus Drivers, School or Special Client	\$36,100	8.2%	0.4%
Driver/Sales Workers	\$35,200	8.3%	0.4%
Heavy and Tractor-Trailer Truck Drivers	\$46,600	9.6%	0.4%
Light Truck or Delivery Services Drivers	\$36,500	10.9%	0.5%
Taxi Drivers and Chauffeurs	\$31,500	4.2%	0.2%
Parking Lot Attendants	\$21,600	5.1%	0.2%
Cleaners of Vehicles and Equipment	\$25,800	7.5%	0.3%
Laborers and Freight, Stock, and Material Movers, Hand	\$31,200	20.7%	0.9%
Packers and Packagers, Hand	\$23,600	7.4%	0.3%
All Other Transportation and Material Moving Occupations (Avg. All Categories)	<u>\$35,600</u>	<u>18.0%</u>	<u>0.8%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$33,300</b>	<b>100.0%</b>	<b>4.4%</b>
			<hr/> <hr/> 88.8%

<sup>1</sup> 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.

<sup>2</sup> Occupation percentages are based on the 2013 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2013 Occupational Employment Survey data for Santa Clara and San Benito Counties, updated by the California Employment Development Department to 2014 wage levels.

<sup>3</sup> Including occupations representing 3% or more of the major occupation group.

## **APPENDIX C: AFFORDABILITY GAPS**

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A key component of the nexus analysis is the size of the gap between what households can afford and the cost of producing new housing in Cupertino, known as the “affordability gap.” In this section, we document the calculation of the affordability gaps used in the nexus analysis.

## **I. Affordable Housing 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. Typically, rental units are produced for households in the Very Low (less than 50% of median income) and Low (50 – 80% of median income) income categories, and ownership units are produced for households in the Moderate (80% - 120% of median income) income category.

To estimate the cost of developing new affordable units in Cupertino, KMA reviewed the development pro forma created by MidPen Housing for a proposed affordable rental housing development located at 19160 Stevens Creek Boulevard in Cupertino. In addition, KMA reviewed tax credit application information for several other recent projects in the local area, including projects in Mountain View and Palo Alto. KMA also gathered input from affordable housing developers and funders active in the area. KMA estimates that, on average, the new affordable rental units have 2.0 bedrooms. The affordable ownership units are assumed to be condominium units with a mix of unit sizes averaging 2.5 bedrooms per unit.

The analysis assumes that tax credit financing is available for the rental income units. The level of tax credit equity per unit represents a blend of 4% and 9% tax credit projects, based on the sample pro formas and tax credit applications reviewed.

## **II. Affordable Rent Levels**

Affordable rent levels are a function of the income level for which the unit is aimed to be affordable. KMA utilized the maximum rents published by the California Tax Credit Allocation Committee (CTCAC). The published rents include utilities, so KMA subtracted out a utility allowance calculated using the 2015 schedule published by the Santa Clara County Housing Authority. The two-bedroom Very Low Income unit is assumed to rent for \$1,086 per month and the Low Income unit for \$1,316, after utilities. See Appendix C Table 1 for more detail on the calculation of these rent levels.

## **III. Affordable Sales Price**

For the ownership unit affordable to Moderate Income households, City of Cupertino staff calculated affordable sales prices for a 3-bedroom unit and a 2-bedroom unit earning 110% of median. The City calculation assumes a household spends 35% of its income on housing, HOA dues are \$300 per month, and the household acquires a mortgage with 5% down and a 5% interest rate. The maximum affordable sales price for a 2-bedroom unit at 110% of Area Median

Income is \$360,000 and for a 3-bedroom unit, \$410,000. The calculations are shown on Appendix C Table 2.

KMA averages the sales prices for the two unit sizes to represent the average unit size of 2.5 bedrooms. The average is \$385,000 for a moderate income household of 3.5 persons.

#### **IV. Affordability Gaps**

For the ownership units, the affordability gap is the amount of subsidy dollars required to bridge the difference between total development costs and the value of the affordable unit. The unit value of an affordable ownership unit is the affordable sales price.

For the rental units, the affordability gap is calculated slightly differently because we assume that these units will receive tax credit financing. For these units, KMA estimates the total sources of funds (including permanent debt, tax credits and a deferred developer fee) and compares that to the total development costs; the difference is the affordability gap, or the amount of additional subsidy dollars necessary to make the project feasible.

##### *a) Development Costs*

For the purposes of the nexus analysis, KMA prepared an estimate of total development cost for typical affordable rental units. Total development costs include land, direct construction, all fees and permits, financing and other indirect costs, including profit. KMA drew this estimate from the total costs in the development pro forma for the recent and proposed tax credit projects in Cupertino and neighboring jurisdictions, which ranged from about \$465,000 per unit to over \$650,000 per unit. In addition, KMA received input from staff at Housing Trust Silicon Valley, a funder of affordable housing projects. The high cost of development is driven significantly by high land costs in Cupertino. For the proposed MidPen project, land acquisition is almost \$190,000 per unit. KMA estimated that a new affordable rental unit has total development costs of \$500,000 per unit.

The City has not recently assisted with the development of affordable ownership units (with the exception of a Cleo Avenue Habitat project, completed in 2013) although it has reviewed a recent proposal for a small ownership development. For the purposes of this analysis, therefore, KMA developed an estimate based on current land costs, the recent proposal reviewed by the City, and our experience with construction costs in other jurisdictions. Total development costs are intended to be conservative but reflective of the expensive land costs in Cupertino. KMA estimates that a new affordable condominium unit in Cupertino would cost \$508,000 per unit to develop, for a 1,100 square foot unit. The proposed project in Cupertino, which consisted of small single family units (just under 1,200 square feet per unit) estimated total development costs at \$752,000. KMA's estimate assumes a land value at \$5 million per acre, or \$143,000 per unit.



For many new developments, particularly City-assisted developments, total development costs are likely to be higher than those estimated here. The conservative estimate of development costs results in a lower supportable nexus amount.

*b) Unit Values*

To calculate the value of the restricted rental units, KMA first estimated the Net Operating Income generated by the units. The first step is to convert monthly gross rent to an annual gross rent by multiplying by twelve; annual gross rent is then adjusted for vacancy rates during turnover, and then operating costs are netted out. Lost income due to vacancy is estimated at 5% of gross rents. Operating costs cover management, property taxes, and certain other expenses. Based on the proposed MidPen affordable housing project, operating expenses are estimated at \$6,600 per unit per year including replacement reserves but excluding property taxes. The rental units are assumed to be owned by a non-profit general partner and therefore exempt from property taxes. Net Operating Income is calculated by netting out vacancy, operating costs and property taxes from the gross income generated by the unit.

The Net Operating Income is used to estimate the amount of permanent debt the project can support, given the underwriting assumptions assumed by MidPen Housing in their proposal (5.5% interest for 30 years with a 1.4 debt coverage ratio). Additional sources of funds include the market value of the tax credits (estimated at \$190,000 per unit based on a blend of 4% and 9% projects) and a deferred developer fee of \$5,000 per unit. Altogether, these Sources of Funds total \$259,000 per Very Low income unit and \$287,000 per Low Income unit.

For the Moderate Income units, the unit value is the affordable sales price, or \$385,000.

The results are summarized below in Exhibit 18 and also referenced in Appendix C Tables 1 and 3.

<b>Exhibit 18: Supported Unit Values</b>		
	<i>Net Operating Income</i>	<i>Unit Value</i>
Very Low Income	\$6,115 per year	\$259,000
Low Income	\$8,737 per year	\$287,000*
Moderate Income	n/a	\$385,000

\*Total Sources of Funds, which includes permanent debt, tax credits and deferred developer fee.

Source: KMA

As shown in the tables above and below, the affordable units do not generate enough value to cover the total development costs of the unit. The resulting gap between unit value and development costs is referred to as the Affordability Gap.

c) *Affordability Gaps*

The affordability gap conclusions are presented in Appendix C Tables 1 and 3, and summarized below in Exhibit 19.

<b>Exhibit 19: Affordability Gaps</b>			
<i>Income Level</i>	<i>Unit Value</i>	<i>Development Cost</i>	<i>Affordability Gap</i>
Very Low Income	\$259,000	\$500,000	\$241,000
Low Income	\$287,000	\$500,000	\$213,000
Moderate Income	\$385,000	\$508,000	\$123,000

Source: KMA

These affordability gaps represent the required subsidy per affordable unit, by income level. They are entered into the nexus analysis to calculate the maximum supported impact fees.

**APPENDIX C, TABLE 1**  
**Nexus Affordability Gaps for Very Low and Low Income Households**  
**Housing Mitigation Program Revision**  
**City of Cupertino**

	<u>50% AMI</u>	<u>60% AMI</u>
<b>I. Affordable Rent</b>		
Average Number of Bedrooms <sup>(1)</sup>	2 Bedrooms	2 Bedrooms
Maximum Rent per CTCAC	\$1,147	\$1,377
(Less) Utility Allowance <sup>(2)</sup>	(\$61)	(\$61)
Maximum Monthly Rent per CTCAC	<u>\$1,086</u>	<u>\$1,316</u>
<b>II. Net Operating Income (NOI)</b>		
	<u>Per Unit</u>	<u>Per Unit</u>
Gross Scheduled Income (GSI)		
Monthly	\$1,086	\$1,316
Annual	\$13,032	\$15,792
Other Income	\$36	\$36
(Less) Vacancy	5%	5%
	<u>(\$653)</u>	<u>(\$791)</u>
Effective Gross Income (EGI)	\$12,415	\$15,037
(Less) Operating Expenses <sup>(3)</sup>	(\$6,300)	(\$6,300)
(Less) Property Taxes	exempt <sup>(4)</sup>	exempt <sup>(4)</sup>
Net Operating Income (NOI)	<u>\$6,115</u>	<u>\$8,737</u>
<b>III. Capitalized Value and Affordability Gap</b>		
A. Net Operating Income (NOI)	\$6,115	\$8,737
B. Sources of Funds		
Supportable Debt <sup>(5)</sup>	\$64,000	\$92,000
Average Value of Tax Credits <sup>(6)</sup>	\$190,000	\$190,000
Deferred Developer Fee	<u>\$5,000</u>	<u>\$5,000</u>
C. Total Sources of Funds	\$259,000	\$287,000
D. (Less) Total Development Costs <sup>(7)</sup>	(\$500,000)	(\$500,000)
<b>E. Affordability Gap Per Unit</b>	<b><u>(\$241,000)</u></b>	<b><u>(\$213,000)</u></b>

<sup>(1)</sup> Average unit size based on a proposed project by MidPen Housing at 19160 Stevens Creek Blvd.

<sup>(2)</sup> Utility allowances from Santa Clara County Housing Authority; assumes gas heat and cooking, and basic electricity.

<sup>(3)</sup> Includes replacement reserves. Based on MidPen's proposed 19160 Stevens Creek Blvd project pro forma.

<sup>(4)</sup> Assumes non-profit general partner.

<sup>(5)</sup> Based on underwriting assumptions in the MidPen proposed 19160 Stevens Creek Blvd project pro forma.

<sup>(6)</sup> Average tax credit equity based on a mix of 4% and 9% tax credits. From four pro formas for projects in Cupertino, Mountain View and Palo Alto.

<sup>(7)</sup> New construction of units only. Development costs based on the average of four tax-credit project pro formas, in Cupertino, Mountain View and Palo Alto.

Sources: City of Cupertino/MidPen Housing, California Tax Credit Allocation Committee staff reports.

**APPENDIX C, TABLE 2**  
**Affordable Sales Price Estimates**  
**Housing Mitigation Program Revision**  
**City of Cupertino**

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**MODERATE INCOME**

*City of Cupertino methodology, assumptions and estimates.*

<i>Income Available for Housing Expenses</i>	<b>2 Bedroom</b>	<b>3 Bedroom</b>
Household Size	3 person HH	4 person HH
Santa Clara County Median Income	\$94,950	\$105,500
Affordability Target	110%	110%
Income for Price Calculation	\$104,445	\$116,050
Percent of Income Available for Housing	35%	35%
Available Income	\$36,556	\$40,618
<i>Available Income per month</i>	\$3,046	\$3,385
<i>Monthly Housing Expenses</i>		
Principal and Interest Payment	5% interest \$1,868	\$2,128
HOA Dues	\$300	\$300
Property Tax	1.25% \$375	\$427
Homeowner's Insurance	\$40	\$40
Mortgage Insurance	1.35% mortgage \$391	\$446
<i>Total Expenses per Month</i>	\$2,975	\$3,340
<i>Sales Price</i>		
Total Loan Amount	\$347,985	\$396,316
(Less) Upfront Mortgage Insurance	\$5,985	\$6,816
Mortgage Amount	\$342,000	\$389,500
Downpayment	5% \$18,000	\$20,500
<b><i>Affordable Sales Price</i></b>	<b>\$360,000</b>	<b>\$410,000</b>

Source: Memo to Keyser Marston Associates from City of Cupertino, "City of Cupertino Below Market Rate 2014 Sales Price Analysis."

**APPENDIX C, TABLE 3**  
**Nexus Affordability Gap Calculation for Moderate Income**  
**Housing Mitigation Program Revision**  
**City of Cupertino**

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**I. City-Assisted Affordable For-Sale Prototype**

Building Type	Multi-family Condominiums
Density (units/acre)	35
Average Number of Bedrooms	2.5
Average Unit Size	1,100 SF

***Estimated Development Costs***

	<u>Per Unit</u>	<u>Per SF</u>
Land <sup>(1)</sup>	\$143,000	\$130
Hard Costs	\$220,000	\$200
Fees & Permits <sup>(2)</sup>	\$70,000	\$64
Soft Costs (@ 25% of Hard Costs)	\$55,000	\$50
Financing	<u>\$20,000</u>	<u>\$18</u>
<b>Total</b>	<b>\$508,000</b>	<b>\$462</b>

**II. Affordable Sales Price**

Per Unit

Household Size	3.5 person HH
Maximum Affordable Sales Price <sup>(3)</sup> (Moderate Income)	\$385,000

**III. Moderate Income Affordability Gap**

	<u>Per Unit</u>
Estimated Total Development Costs	\$508,000
(Less) Affordable Price	( <u>\$385,000</u> )
<b>Affordability Gap per unit</b>	<b>\$123,000</b>

1. Assumes residential land value of \$5 million per acre. Current market rate land values are in the \$5 - \$6 million per acre range.

2. Fees & permits estimated based on pro forma for Habitat for Humanity's proposed Cleo Avenue project. Includes city fees and utility connection fees.

3. An average of the 2 Bedroom and 3 Bedroom BMR sales prices, shown on Appendix C Table 2.

**APPENDIX D: NON-DUPLICATION BETWEEN  
POTENTIAL RESIDENTIAL AND NON-RESIDENTIAL FEE PROGRAMS**

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The City of Cupertino charges an impact fee on non-residential and residential construction to help mitigate the impacts of the new buildings on the demand for affordable housing the City. KMA conducted both a Non-Residential Jobs-Housing Nexus Analysis and a Residential Below Market Rate (BMR) Nexus Analysis to assist the City in updating its Housing Mitigation programs; in this appendix, KMA conducts an 'overlap analysis' to determine whether any double-counting of impacts is possible.

To briefly summarize the Non-Residential Jobs-Housing Nexus Analysis the logic begins with jobs located in new workplace buildings including office buildings, retail spaces and hotels. The nexus analysis then identifies the compensation structure of the new jobs depending on the building type, the income of the new worker households, and the housing affordability level of the new worker households, concluding with the number of new worker households in the lower income affordability levels.

In the Residential Below Market Rate (BMR) Housing Nexus Analysis, the logic begins with the households purchasing or renting new market rate units. The purchasing power of those households generates new jobs in the local economy. The nexus analysis quantifies the jobs created by the spending of the new households and then identifies the compensation structure of the new jobs, the income of the new worker households, and the housing affordability level of the new worker households, concluding with the number of new worker households in the lower income affordability levels.

Some of the jobs that are counted in the Non-Residential Jobs-Housing Nexus Analysis are also counted in the Residential Below Market Rate (BMR) Housing Nexus Analysis. The overlap potential exists in jobs generated by the expenditures of City residents, such as expenditures for food, personal services, restaurant meals and entertainment. Many jobs counted in the residential nexus are not addressed in the jobs housing analysis at all. For example, school and government employees are counted in the residential nexus analysis but are not counted in the jobs housing analysis which is limited to private sector office and industrial buildings, hotels, and retail/restaurant space.

Theoretically, there is a set of conditions in which 100% of the jobs counted for purposes of the Non-Residential Jobs-Housing Nexus Analysis are also counted for purposes of the Residential Below Market Rate (BMR) Housing Nexus Analysis. For example, a small retail store or restaurant might be located on the ground floor of a new apartment building and entirely dependent upon customers from the apartments in the floors above. The commercial space on the ground floor pays the Non-Residential fee and the apartments would pay a Residential Impact fee. In this special case, the two programs mitigate the affordable housing demand of the very same workers. The combined requirements of the two programs to fund construction of affordable units must not exceed 100% of the demand for affordable units generated by employees in the new commercial space.

Complete overlap between jobs counted in the Non-Residential Jobs-Housing Nexus Analysis and jobs counted in the Residential Below Market Rate (BMR) Housing Nexus Analysis could occur only in a very narrow set of circumstances. The following analysis demonstrates that the combined mitigation requirements do not exceed the nexus even if every job counted in the Residential Below Market Rate (BMR) Housing Nexus Analysis is also counted in the Non-Residential Jobs-Housing Nexus Analysis.

*Non-Residential Requirement under Consideration as a Percent of Maximum Fee*

The Non-Residential Jobs-Housing Nexus Analysis calculates the maximum mitigation amount supported by the analysis. City staff has indicated that they are considering recommending a fee in the range of \$20.00 per square foot for office, R&D and industrial space, and \$10.00 per square foot for retail and hotel development. The overlap analysis is conducted on these fee levels; if the City ultimately selects a higher fee level, the overlap analysis should be rerun at the higher fee level. Exhibit 20 below indicates the proposed fee as a percentage maximum fee amount.

<b>Exhibit 20: Non Residential Proposed Requirement as a Percent of Maximum Fee</b>			
	<i>Maximum Fee Amount</i>	<i>Proposed Fee</i>	<i>Percent of Maximum</i>
Office/R&D/Industrial	\$129.05 psf	\$20.00	15%
Hotel	\$49.15 psf	\$10.00	20%
Retail / Restaurant	\$222.32 psf	\$10.00	4%

Source: KMA, City of Cupertino

The conclusion is that the fee level under consideration represents 4% to 20% of the nexus cost. So, the Non-Residential fee mitigates approximately 4% to 20% of the demand for affordable units generated by the new non-residential space.

*Residential Requirement under Consideration as a Percent of Maximum Fee*

City Staff is considering recommending an increase in the affordable housing impact fee for new residential development in the City. The fees currently under consideration by Staff range from \$15.00 to \$25.00 per square foot. Exhibit 21 below compares the maximum supported fee amounts for residential buildings with Staff's recommended fee levels.

<b>Exhibit 21: Proposed Fee as Percent of Maximum Fee Amount, Residential Units</b>						
	<i>Larger Single Family</i>	<i>Smaller Single Family</i>	<i>Small Lot SF / Townhome</i>	<i>Condo-minium</i>	<i>Lower Density Apartment</i>	<i>Higher Density Apartment</i>
Maximum Impact Amount	<b>\$30.60</b>	<b>\$30.10</b>	<b>\$35.60</b>	<b>\$35.10</b>	<b>\$33.80</b>	<b>\$42.50</b>
Proposed Fee (psf)	\$15.00	\$15.00	\$16.50	\$20.00	\$20.00	\$25.00
Fee as Percent of Maximum	49%	50%	46%	57%	59%	59%

Source: KMA, City of Cupertino



The conclusion is that the affordable housing impact fee levels under consideration by City Staff are equal to 46% - 59% of the maximums supported by the Residential Nexus analysis.

### **Combined Requirements within Nexus Maximums**

The Non-Residential Housing Mitigation fee levels under consideration are 4% to 20% of the maximum supported impact fee amount and the Residential Housing Mitigation Fee levels under consideration for new residential units are between 46% and 59% of the maximum supported impact fee amount. Therefore, the combined affordable housing mitigations would not exceed the nexus even if there were 100% overlap in the jobs counted in the two nexus analyses.

## **APPENDIX E: SUMMARY OF OTHER CITIES' BMR PROGRAMS**

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It is always of interest to policy maker to know whether other jurisdictions have similar affordable housing programs in place. Appendix E Table 1 at the end of this section is a chart summarizing the program in nearby jurisdictions selected by the City: San Jose, Mountain View, Sunnyvale, Palo Alto and Fremont. Each city in the chart was in the process of updating its BMR program when the information was assembled at the end of 2014.

The fee levels in Cupertino, at \$3.00 per square foot, are lower than the fees in the other jurisdictions. For rental projects, San Jose recently adopted a fee of \$17 per square foot, Mountain View's City Council has approved a fee increase to \$17 per square foot, Sunnyvale is considering a fee in the \$10-\$20 per square foot range, and Fremont has approved fees of \$17.50 per square foot. Palo Alto's rental program is currently suspended; the former in-lieu fee was set at 7.5% of the appraised value of the development.

For ownership projects, Cupertino's onsite requirements are fairly consistent with the other cities'. The onsite requirements for the cities analyzed are in the 10% – 15% range, with the exception of San Jose, who has suspended their ownership requirements given a pending court case, and Fremont, which has a combined onsite obligation plus fee payment program. Under certain circumstances, Palo Alto requires a higher percentage of units to be set aside.

Cupertino's fees, however, are significantly lower than the other cities' fees. At \$3 per square foot (including garages in the square footage calculation), the fee ranges from \$4,500 to \$12,810 per unit for the ownership prototypes. Several cities structure their in-lieu fee as a percent of the market rate sales price. In Cupertino, a fee equal to 3% of sales price would result in in-lieu fees ranging from \$24,000 per unit to \$78,000 per unit for the ownership prototypes.

**APPENDIX E, TABLE 1  
COMPARISON OF BELOW MARKET RATE HOUSING PROGRAMS  
CITY OF CUPERTINO, CA**

	<b>Cupertino</b>	<b>San Jose</b>	<b>Mountain View</b>	<b>Sunnyvale</b>	<b>Fremont</b>	<b>Palo Alto</b>
<b>Year Adopted / Updated</b>	Est. 1993; update in process.	Est. 2010; inclusionary program suspended. Rental Fee 2014	Est. 1999; Rental Impact Fee in 2012; update in process	update in process	Nexus-based program est. in 2002; updated March 2015; full phase-in July 2017	Est. 1974; nexus analysis in process.
<b>Residential Nexus?</b>	In Process	For rental.	Yes.	Completed in 2012.	Yes.	In Process
<b>Minimum Project Size</b>						
For Fee Obligation	1 unit	1 unit	FS: 3 units R: 5 units Mixed: 6 units	8 units	2 units	5 units
For Build Requirement	7 units	n/a	10 units	20 units <sup>1</sup>	No build req.	5 units
<b>For Sale Onsite Requirement</b>						
Percent of Units	15%	Suspended.	10%	12.5%	Attached 3.5% plus \$18.50 psf Detached 4.5% plus \$17.50 psf	Base: 15% 20% if site > 5 acres 25% if loss of rentals
Income Level (% AMI)	1/2 @ 80-100% AMI 1/2 @ 100 - 120% AMI		80% - 100% AMI	Up to 120% AMI	Moderate: 80-110% (120% w/approval)*	Base: 10% @ 80-100% 5% @ 100-120%
<b>Rental Onsite Option?</b>	As alternative to fee.	No.	As alternative to fee.	In Process	No.	In Process
<b>Impact / In-Lieu Fee</b>	\$3 psf	R: \$17 psf Downtown highrises exempted for 5 years.	FS: 3% of sales price R: \$17 psf	FS: 7% of sales price R: \$17 psf.	<b>FS:</b> Attached \$18.50 w. aff units; \$27.00 no units Detached \$17.50 w aff units \$26.00 no units R: \$17.50 no map; \$27.00 w map	FS: 7.5% of sales price 10% of sales price is site > 5 acres 12.5% of sales price if loss of rental units
<b>Fractional Units</b>	<1 unit owed: pay fee >1 unit owed: round	n/a	pay fee or provide unit	pay fee or provide unit	pay fee or provide unit	pay fee or provide unit
<b>Alternatives to Onsite Provision</b>						
Fee Option	6 or Fewer Units	n/a	9 or Fewer Units	yes	yes	if infeasible onsite or offsite (w City approval)
Land Dedication (w City approval)	yes		no	no	yes	yes
Offsite (w city approval)	yes		no	yes	yes	yes
Other (W City approval)				Purchase existing units and convert to affordable. Preserve & rehab expiring units.	Purchase existing units and convert to affordable. Preserve at-risk units.	Rehab units.
<b>Design of Inclusionary Units</b>						
Smaller Units	not specified	n/a	no	yes	no	no
Lesser Interior Finishes	yes		no	no	yes	yes (FS only)
Other Design Standards	not specified				May be attached units; may be single story.	
<b>Other Concessions</b>	Fee waivers - park dedication and construction tax.	Downtown highrises exempted for 5 years.				

1. Not specified in Ordinance, but City documents indicate that projects with fewer than 20 units are eligible to pay fee.

Note: This chart presents an overview and terms have been simplified. Consult code and City staff for more information.

Abbreviations: R = Rental FS = For Sale PSF = Per Square Foot NSF = Net Square Feet