Appendix I1
Housing Needs Assessment

bae urban economics

Housing Needs Assessment for 123 Independence Drive Project

Prepared for the City of Menlo Park

June 1, 2022

bae urban economics

June 1, 2022

Katherine Waugh
Senior Project Manager
Dudek
Via email

Dear Katherine:

BAE is pleased to submit this Housing Needs Assessment for the proposed 123 Independence Drive project. We look forward to assisting you in moving forward with this project.

Sincerely,

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EXECUTIVE SUMMARY

BAE Urban Economics, Inc. (BAE) has been retained to prepare a housing needs assessment for the proposed 123 Independence Drive development project (the "Proposed Project"), which is currently slated to consist entirely of residential and open space uses, including 116 for-sale townhouses and 316 apartments, of which 18 townhouses and 48 apartments are designated as below-market units, for a total of 432 housing units. The development would demolish five existing industrial and office buildings that currently occupy the site. The analysis here is provided to satisfy the terms of the 2017 settlement agreement between the City of Menlo Park and the City of East Palo Alto, which states:

> *"The scope of the HNA will, to the extent possible, include an analysis of the multiplier effect for indirect and induced employment by that Development Project and its relationship to the regional housing market and displacement."*

Background Conditions

Menlo Park is currently home to approximately 35,000 persons and 13,000 households. This represents an increase since 2010 of 8.7 percent in population and 5.9 percent in households and indicates continued demand for new housing in the city. Regional projections show continued expected growth in south San Mateo County and the larger region consisting of San Mateo and Santa Clara Counties. Owners outnumber renters in Menlo Park, but there are over 5,000 renter-occupied housing units in the city, indicating a substantial local market for both owner and renter-occupied homes.

Menlo Park's household incomes are relatively high, showing affluence even above what is a high-income region, Nevertheless, there are numerous households in both the city and the region that cannot find affordable housing due to lower income levels.

Slightly more than 35 percent of Menlo Park households report moderate cost burdens, meaning that they pay 30 percent or more of income for shelter, with nearly half of those reporting severe cost burdens, paying more than 50 percent of their income for shelter. Regionally, over three hundred thousand households face excessive housing costs demonstrating the need for additional affordably-priced housing in the region.

Menlo Park has seen significant job growth in recent years, far exceeding population growth; between 2010 and 2019, employment more than doubled from approximately 23,000 to 53,000, as the tech economy has boomed. The rate of growth far outstrips the two-county region, even as the region showed an increase of almost 32 percent, or 370,000 jobs, over the same period. The local and regional growth have created substantial pressure on housing markets in Menlo Park and surrounding communities as workers are faced with the choice of high housing costs and/or long commutes.

Menlo Park has far more jobs than employed residents; there are 3.2 jobs for every employed resident in the city. As a result, Menlo Park has high net in-commuting; the Two-County Region also imports workers. Additional housing in Menlo Park would address the current imbalance between workers and jobs in the city, if not in the region overall, as workers seek to avoid long commutes and to live close to their workplace.

Most of the recent residential construction activity in the city has been in larger multifamily structures. From 2018 through 2021 building permits were issued for 343 multifamily units in buildings of five or more units, with the remaining 140 being for single-family units. As of December 2021, there are almost 3,900 additional housing units in the planning pipeline in Menlo Park. Most of these units are also in large multifamily projects.

Current rent levels, which continue to rise year over year, and rental vacancy rates in Menlo Park also indicate strong demand for additional new units in the city and surrounding communities. Condominium and townhome sale prices also indicate strong demand for denser ownership housing in Menlo Park.

Net Impact on Housing Supply and Demand by Income Level

Analysis of the net impacts of the Proposed Project on housing supply and demand, by income level is based on a model that steps through estimations of the following components:

- Change in housing supply by income level
- Net direct change in worker housing demand
- Indirect and induced job impacts and related regional worker housing demand
- Net effect on housing demand/supply

The analysis estimates the number of jobs that would be supported by the increased spending of new households associated with proposed housing units on goods and services within the two-county region. BAE has converted workers to households and used Census microdata to estimate the household income levels associated projected workers within the relevant industry sectors.

Net Housing Demand/Supply Effect

Aggregating the direct, indirect, and induced impact calculation from the preceding tasks, the net impacts on housing demand and supply are extremely small. The households in the new units in the Proposed Project are balanced by the new units they occupy, and the additional households associated with the induced jobs created by the expenditures of the new households in the project are roughly balanced out by the jobs linked to the closure of existing businesses at the project site.

In summary, there is an estimated net decrease in total housing demand of five units (see Table 1), but there is a net increase of ten units demand for units for extremely low, very low,

and low income households, which is more than offset by the decrease in demand for market-rate units.

It should be noted that these workers would not necessarily work or live in Menlo Park. However, the net housing unit demand regionally, which is negative, is so small that much of the analysis of the impacts specifically on Menlo Park and East Palo Alto conservatively assumes the impacts will occur within Menlo Park or East Palo Alto.

Table 1: Summary of Net Housing Demand/Supply

	Estimated Household Income as a Percent of AMI						
Change in Number of Households	**Extremely Low**	**Very Low**	**Low**	**Moderate**	**Above Moderate**	**Above 150%**	**Total**
Due to Closure of Existing Businesses	-9	-11	-17	-12	-12	-42	-103
New Onsite Employment	1	1	1	1	0	1	5
From New Housing (a)	12	35	41	187	124	126	525
Less New Units (b)	0	-22	-22	-176	-114	-98	-432
Net New Housing Demand	**4**	**3**	**3**	**-1**	**-1**	**-13**	**-5**

Notes:
(a) Includes households occupying Proposed Project and additional households for workers associated with the induced impacts of the project.
(b) Some of the market rate rental units have rent levels affordable to the Moderate and Above Moderate income categories.

Source: BAE, based on sources as cited in tables in the body of this report.

Following is additional information on the various components of this estimate. An even more detailed explanation can be found in the report chapter entitled "Net Impact on Housing Supply and Demand by Income Level."

The Proposed Project provides a variety of units at a variety of rent levels, including the below market units, and will generate homes for households at a variety of income levels and household sizes. These households will then spend money locally and regionally, creating additional demand for workers in various industries at various earnings levels, which will in turn create additional demand for housing across a range of costs. In economic terminology, the additional jobs generated by the project's households are a type of induced impacts, which are estimated here using the IMPLAN input-output model to estimate the number of new jobs created in the Two-County Region to serve the new project households.

Based on the assumptions regarding household income as driven by assumed rents and sale prices, household expenditures for the Proposed Project would result in an additional estimated 169 induced jobs in the Two-County Region.

To estimate the household income distribution of these workers, BAE turned again to the ACS PUMS data. Using Census data, BAE generated a matrix of workers by household incomes by

income category and major industry group. It is estimated that 92 households can be attributed to the estimated 196 induced jobs resulting from expenditures of households in the Proposed Project. Fifty-four of those households would have extremely low to moderate incomes.

The Proposed Project is entirely residential, so the only new jobs created by the project will be related to property management. However, there will be a reduction in local jobs due to removal of the existing industrial and office buildings onsite; the total direct employment loss is estimated at 115 jobs.

These existing workers fall in a range of earning and household income categories, likely occupying housing across a broad range of values. Using a matrix of jobs by industry and by household income, there is an estimated decline of 61 households related to the direct worker loss, and of those 61 households, 27 would be extremely low to moderate income households. As with the increase in jobs due to household spending, the net loss of direct jobs at the Project site will lead to indirect job losses in the supply chain for the impacted businesses, and to induced job losses due to the decline in spending in the region by the direct workers no longer employed in the area. Overall, the indirect and induced job losses resulting from removal of the existing businesses from the project site total 77 estimated jobs. Applying PUMS-based estimates of average worker household size by income range, 41 households can be attributed to the estimated 77 indirect and induced jobs lost due to the redevelopment and conversion of the Proposed Project site from industrial and office to residential. Of those 41, 21 would be households with extremely low to moderate incomes.

While the removal of existing businesses from the Proposed Project will result in job loss, the housing units replacing those businesses will create demand for a very small number of onsite workers associated with property management and maintenance. Based on per unit employment generation factors from the National Apartment Association, it is estimated that the 316 apartments will generate a total of seven direct jobs and two additional indirect and induced jobs. Based on average worker household size by income level, the nine additional workers would be responsible for five additional households, four of them in the extremely low to moderate income range.

Menlo Park Share of Housing Impacts

This section provides an estimate of the share of new direct, indirect, and induced housing demand related to the Proposed Project that would occur in Menlo Park and East Palo Alto, based in large part on existing commute patterns. This section would normally include a sensitivity analysis to estimate the housing demand in Menlo Park and East Palo Alto to determine if housing demand among new workers differs somewhat from housing demand as indicated by existing commute patterns; but as discussed below, due to the extremely small number of units by income for which there is demand, the analysis will instead show what

percentage of the demand by income category would have to be captured in Menlo Park to reach the point where the resulting calculation of the share of housing demand within Menlo Park does not round down to zero.

According to the most recent data from the American Community Survey, 8.9 percent of persons working in Menlo Park are Menlo Park residents. ACS data processed for the 2012-2016 Census Transportation Planning Package estimate that 3.0 percent of Menlo Park workers live in East Palo Alto. The overall net regional change estimate, however, shows that overall, the Proposed Project would provide more units than would be demanded due to the net direct, indirect, and induced jobs generated by the project. Taking the current proportions of Menlo Park and East Palo Alto workers who also reside in the two cities based on commute data and applying that proportion to each unit type individually would result in demand estimates for zero units (rounded) beyond what is already included in the project, even after assigning all jobs created to Menlo Park, including those created by indirect and induced jobs. Although those indirect and induced jobs would not necessarily be in Menlo Park or East Palo Alto, they have all been assigned to Menlo Park to ensure this analysis is based on conservative assumptions.

It is important to note that the analysis here assumes that all of the households with workers whose jobs are estimated to be created by the Proposed Project, including the indirect and induced jobs that could occur elsewhere in the two-county region, would seek housing in Menlo Park and East Palo Alto at the same rate as the jobs created within Menlo Park itself, regardless of where the jobs are located in the region. Even assuming all the net housing demand generated by the project would occur in Menlo Park or East Palo Alto, the impacts in the two cities would be negligible.

These levels of demand are also near to nonexistent in the context of the overall housing market. Based on the ACS estimate of the proportion of workers living in Menlo Park or East Palo Alto (11.9 percent), and rounding to the nearest whole number, the housing need would be for zero units in the two cities. Increasing the capture rate to 13 percent would result in demand for one additional extremely low income unit in the two cities combined. Increasing the rate to 25 percent would result in demand for one additional unit each of extremely low, very low, and low income housing, and going to 50 percent would result in demand for two additional units at each of the three income levels.

Impacts on Local and Regional Housing Markets

The Proposed Project will result in a minimal impact on employment in Menlo Park and will also have only a minimal impact on employment at the regional level. The jobs removed (including directly, indirectly, and induced) due to the redevelopment of the project site will be balanced out by the very small number of new jobs onsite and the extremely limited indirect and induced employment linked to those jobs, along with the induced jobs resulting from the local and regional expenditures of the new residents of the Proposed Project. As a result,

based on the analysis presented in this report the Project is likely to have a negligible impact on the regional housing market, jobs-housing balance, and displacement pressures.

Potential Impacts on Housing Supply

The project has an estimated overall negligible positive net impact on the regional housing supply of 15 units, due largely to the removal of several job-generating businesses on the project site which are roughly balanced by the number of additional induced jobs generated by the project. Just within Menlo Park, there are approximately 3,900 units, including the Proposed Project, in the pipeline. It is likely that many of the new jobs linked to the project would actually be elsewhere in the two-county region, so the continued expansion of the housing supply just in Menlo Park, while critical to addressing regional housing challenges, could easily absorb demand from workers attributable to the Proposed Project who seek housing in Menlo Park, even without accounting for units made available through turnover of existing units.

Potential Impacts on Jobs-Housing Balance

The Proposed Project overall is estimated to create slightly more units than the net demand from worker households, but the change in demand would not be significantly different from the change in supply, thus resulting in little change in the overall jobs housing balance in the region. Even if the workers in the created offsite jobs all chose to reside in Menlo Park, there would be no meaningful change in the jobs-housing balance in the city. The net difference in housing demand is negligible. At lower income levels, there is a very slight net demand for more units, but this net demand is extremely small (ten units) in the context of the overall housing market for Menlo Park or especially the region.

Potential Displacement Impact Findings

Displacement and gentrification are a key issue locally and throughout the region and addressing the cumulative impact of the Proposed Project and other projects that generate new housing demand will be essential to addressing cumulative housing needs and mitigating displacement pressures over the long term. However, given the very limited potential net impacts of the Project on the local and regional housing supply and jobs-housing balance, the Project is not likely to have a perceptible impact on local and regional displacement pressures. Furthermore, the Proposed Project is located in an area that is transitioning from commercial and industrial uses to mixed use development including residential, rather than being located in an existing residential neighborhood in Menlo Park such as Belle Haven, or in East Palo Alto, where lower income households currently are concentrated. Due to the regional nature of the housing market, the Project is unlikely to have any measurable impact on displacement pressures in Menlo Park and East Palo Alto.

INTRODUCTION

BAE Urban Economics, Inc. (BAE) has been retained to prepare a housing needs assessment for the proposed 123 Independence Drive development project (the "Proposed Project"), which is currently slated to consist entirely of residential and related uses, including 116 for-sale townhouses and 316 apartments, of which 18 townhouses and 48 apartments are designated as below-market units, for a total of 432 housing units. The development would demolish five existing industrial and office buildings that currently occupy the site. The analysis here is provided to satisfy the terms of the 2017 settlement agreement between the City of Menlo Park and the City of East Palo Alto, which states:

> *"The scope of the HNA will, to the extent possible, include an analysis of the multiplier effect for indirect and induced employment by that Development Project and its relationship to the regional housing market and displacement."*

To accomplish this, the analysis includes background analysis of the local and regional housing market context; identification of the proposed project's net impact on housing supply and demand across income levels; estimation of the impacts felt within Menlo Park; and an evaluation of the broader impacts on the balance of supply and demand within the regional housing market. The latter includes a qualitative assessment of the potential for displacement of lower-income residents within the local area.

Based on the current development program, the project will provide the mix of housing units shown in Table 2.

Table 2: Current Development Program

APARTMENTS

Below Market Rate	# of Units	Income Target		
		Very Low	Low	Moderate
Studio	14	5	5	4
1 BR / 1 ba	28	9	9	10
2 BR / 2 ba	6	2	2	2

Market Rate	# of Units
Studio	75
1 BR / 1 ba	157
2 BR / 2 ba	36

TOWNHOMES

Below Market Rate	# of Units	Income Target		
		Very Low	Low	Moderate
2 BR / 1.5 ba	6	2	2	2
4 BR / 2 ba, 4 BR 2.5 ba	12	4	4	4

Market Rate	# of Units
2 BR / 2.5 ba	34
3 BR / 3.5 ba	64
BMR Apartments	48
BMR Townhomes	18
Apartments Total	316
Townhomes Total	116
Grand Total	**432**

Source: City of Menlo Park; BAE, 2022.

BACKGROUND CONDITIONS

To set the stage for the impact analysis, BAE has collected and analyzed background data on demographic and housing market characteristics in Menlo Park and the wider region. The analysis covers both Menlo Park and the San Mateo County/Santa Clara County region of the Bay Area, and includes information on basic population and household trends, household income levels, housing cost burden, overcrowding, renter and owner occupancy rates, residential rents and sale prices, typical residential turnover rates, recent residential construction activity, recent employment growth, projected household growth, and projected employment growth, as well as on the number and type of units in the residential development pipeline in Menlo Park.

Demographic and Economic Trends

The following analysis looks at Menlo Park in the context of a larger region which provide workers and potential residents for Menlo Park at its location in the core of the Bay Area's high-tech economy. Since the city sits at the boundary of two counties, the larger region is defined as consisting of both San Mateo County and Santa Clara County, i.e., the "Two-County Region."

Data sources used in this analysis include the California Department of Finance, the U.S. Census Bureau, American Community Survey and Longitudinal Employer-Household Dynamics (LEHD), and *Plan Bay Area 2050* from the Association of Bay Area Governments & Metropolitan Transportation Commission.

Population and Households

Menlo Park is currently home to approximately 35,000 persons and 13,000 households. This represents an increase since 2010 of 8.7 percent in population and 5.9 percent in households (see Table 3). As a result of the difference in growth rates, the average household size in the city has grown to 2.60 persons in 2021. The Two-County Region has seen similar growth, with the 2021 population at about 2.7 million, in 915,000 households.

Table 3: Population and Housing Trends, 2010-2021

Population	2010	2021	% Change 2000-2021
Menlo Park	32,026	34,825	8.7%
San Mateo & Santa Clara Counties	2,500,093	2,699,416	8.0%

Households	2010	2021	% Change 2000-2021
Menlo Park	12,347	13,079	5.9%
San Mateo & Santa Clara Counties	862,041	915,315	6.2%

Average Household Size	2010	2021
Menlo Park	2.53	2.60
San Mateo & Santa Clara Counties	2.85	2.91

Sources: California Department of Finance, E-5 Reports; BAE, 2021.

This growth generates demand for additional housing in Menlo Park and the region, as also indicated by rising rents and home prices as discussed below.

Household Income

As illustrated in Table 4, Menlo Park's household incomes are relatively high, showing affluence even above what is a high-income region, with a median annual household income of over $160,000 compared to $124,000 for the region - by comparison the statewide median household income for the same period is only $75,235. Nevertheless, there are numerous households in both the city and the region with incomes where the cost of market-rate housing may result in high housing cost burdens.

Table 4: Household Income Distribution and Median Annual Household Income

	City of Menlo Park		San Mateo and Santa Clara Counties	
Household Income	Number	Percent	Number	Percent
Less than $14,999	734	6.2%	48,211	5.3%
$15,000 to $24,999	543	4.6%	38,244	4.2%
$25,000 to $34,999	424	3.6%	39,964	4.4%
$35,000 to $49,999	543	4.6%	58,461	6.5%
$50,000 to $74,999	1,247	10.5%	96,299	10.7%
$75,000 to $99,999	832	7.0%	91,657	10.1%
$100,000 to $149,999	1,347	11.3%	156,622	17.3%
$150,000 and above	6,236	52.4%	374,300	41.4%
Total Households	**11,906**	**100.0%**	**903,758**	**100.0%**
Median Household Income	**$160,784**		**$123,699**	

Note:
Incomes are in 2019 dollars.

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Tables B19001 and S1903.

Tenure

Owners outnumber renters in Menlo Park, accounting for approximately 58 percent of all households, as illustrated in Table 5 below. This distribution is extremely similar to that of the two-county region. Nevertheless, there are over 5,000 renter-occupied housing units in the city, indicating a substantial local market for both owner and renter-occupied homes.

Table 5: Distribution of Homeowners by Tenure Type

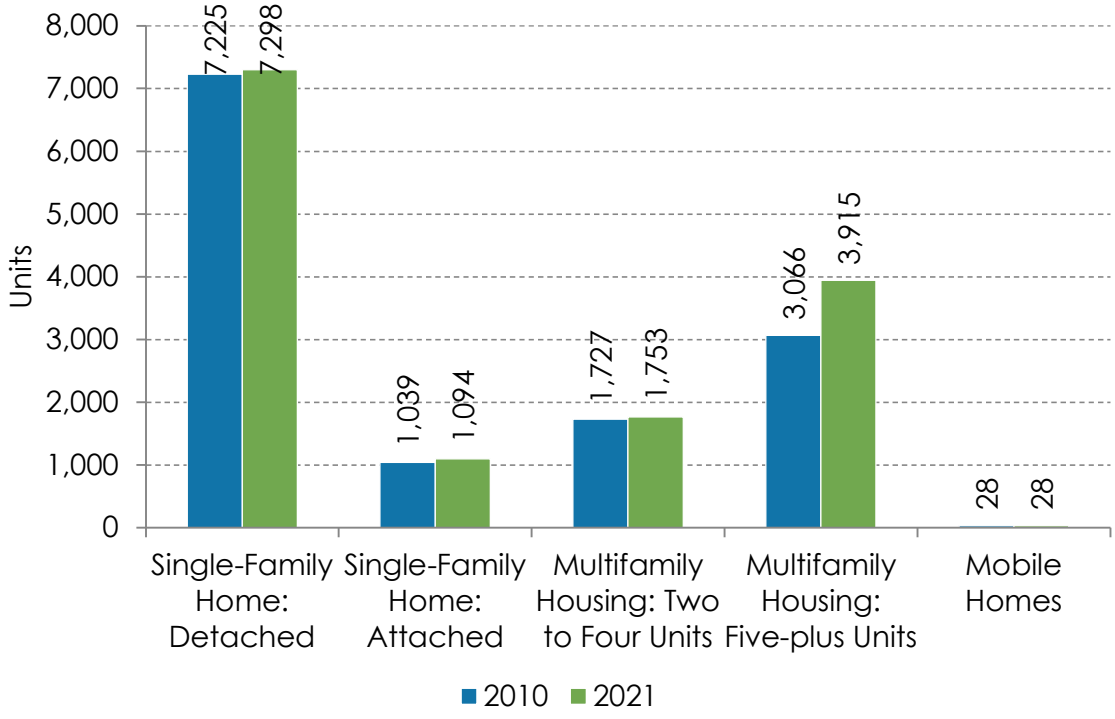
	City of Menlo Park		San Mateo and Santa Clara Counties	
Tenure Type	**Number**	**Percent**	**Number**	**Percent**
Owner	6,896	57.9%	519,648	57.5%
Renter	5,010	42.1%	384,110	42.5%
Total Occupied Households	**11,906**	**100.0%**	**903,758**	**100.0%**

Source: U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Table B25003.

Housing Trends

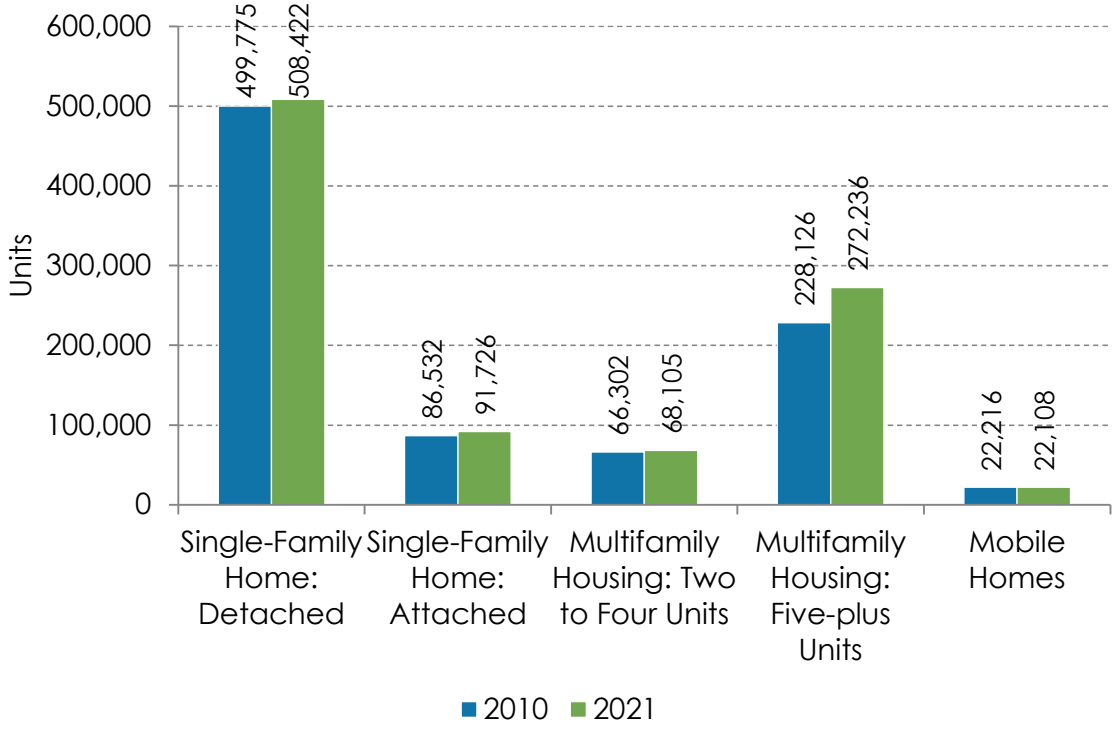
Slightly more than half of Menlo Park's housing units are single-family detached homes. However, almost all of the residential growth in the city and the region since 2010 has been in multifamily units in buildings of five or more units (see Figure 1 and Figure 2). This indicates that as density has increased in the region, housing similar to the proposed 123 Independence project is becoming more prevalent.

Figure 1: Menlo Park Housing Units, 2010 and 2021



Source: California Department of Finance E-5 Report, 2021.

Figure 2: San Mateo and Santa Clara Counties Housing Units, 2010 and 2021



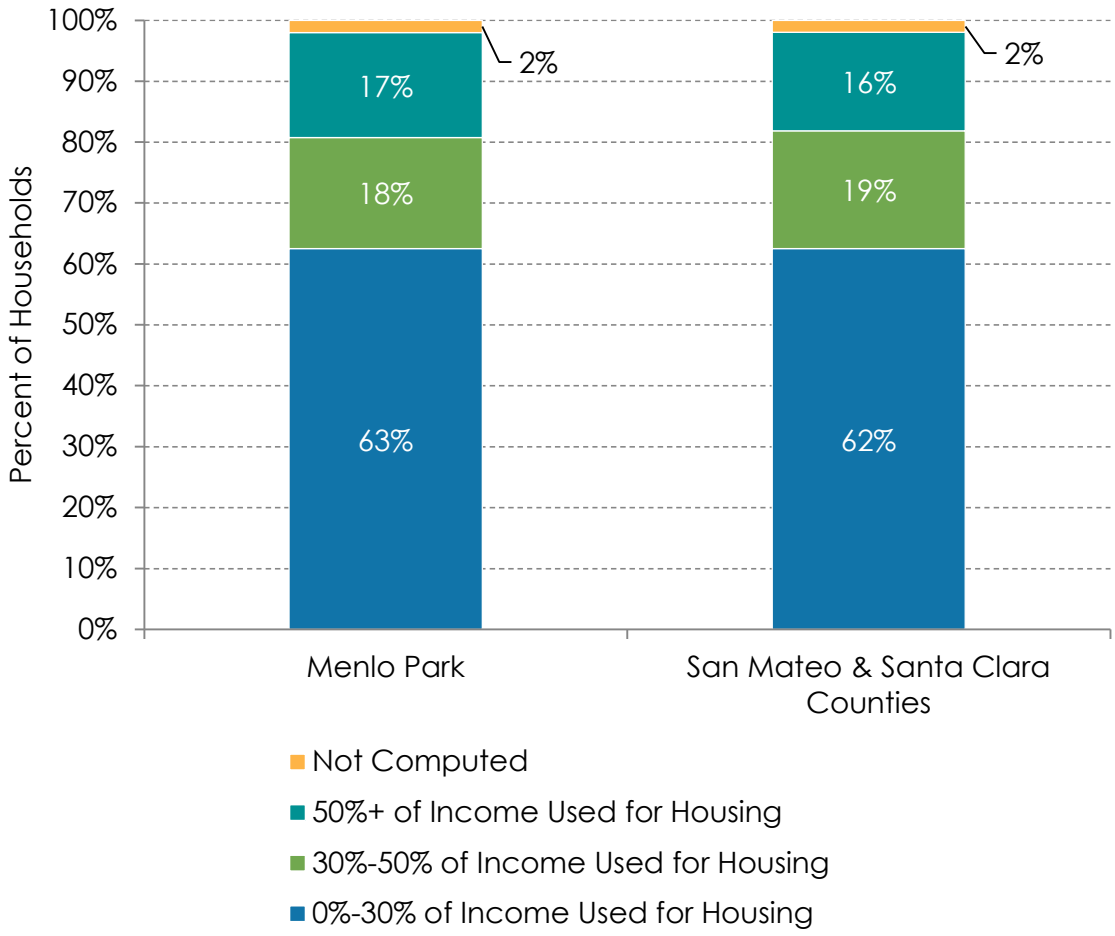
Source: California Department of Finance E-5 Report, 2021.

Cost Burden

Housing cost burden is the ratio of housing costs to household income; for renters, housing cost is gross rent (contract rent plus utilities), and for owners, housing cost is "select monthly owner costs," which includes mortgage payment, utilities, association fees, insurance, and real estate taxes. Moderately cost-burdened households are typically defined as those whose housing costs exceed 30 percent of income, while severely cost-burdened households are those whose housing costs are more than half of their income.

Based on 2015 to 2019 Census data, slightly more than 35 percent of Menlo Park households (4,221) report cost burdens exceeding 30 percent of income, with nearly half of those (2,052) reporting severe cost burdens (see Figure 3). The region shows very similar proportions of moderate and severely cost-burdened households, indicating that over three hundred thousand households face excessive housing costs; this demonstrates the need for additional affordably-priced housing in the region.

Figure 3: Housing Costs as a Percent of Household Income, Menlo Park and the Two-County Region



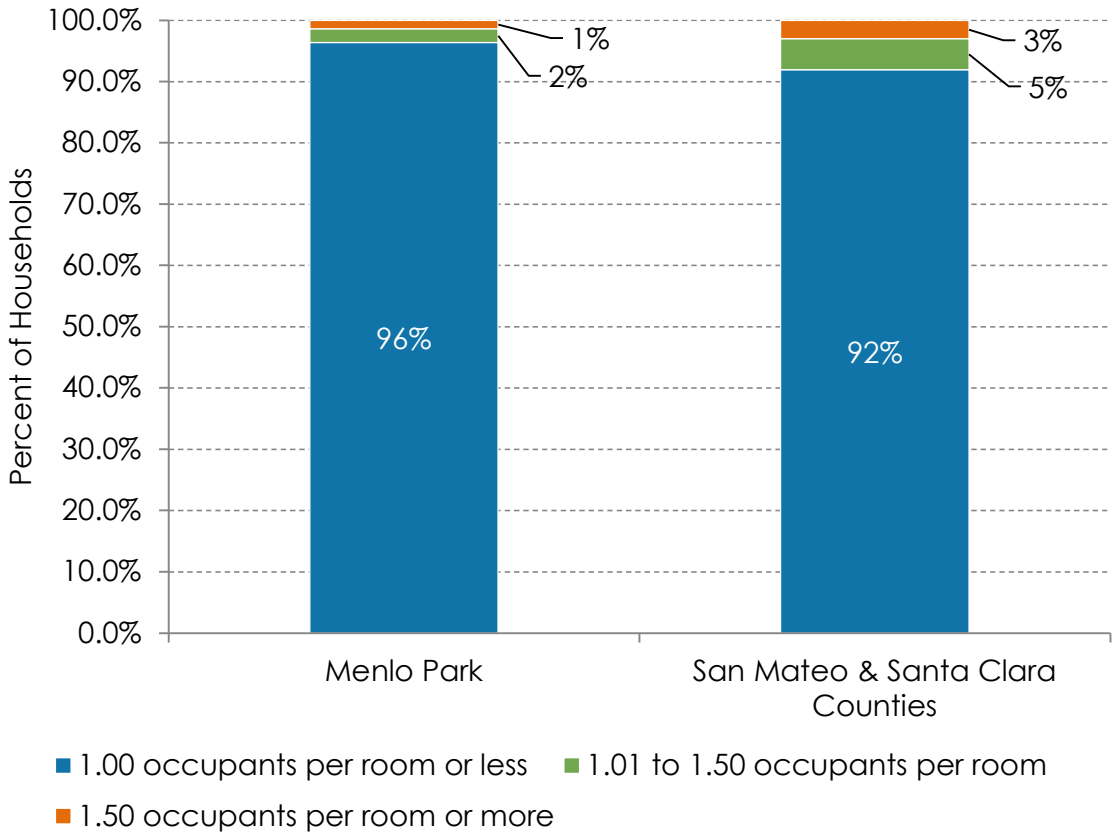
Source: U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Table B25070, B25091.

Overcrowding

Households having difficulty finding suitable housing at affordable prices can lead to "doubling up" or other types of overcrowding as households rent or buy smaller less expensive units. The Census Bureau defines an overcrowded unit as one occupied by 1.01 persons or more per room (excluding bathrooms and kitchens), and units with more than 1.5 persons per room are considered severely overcrowded.

As illustrated in Figure 4, Menlo Park has few households living with overcrowded conditions. Only four percent of households have more than one person per room, and only one percent of households are severely overcrowded. Regionally, overcrowding is more of an issue, with eight percent of households at more than one person per room, and three percent severely overcrowded. New market-rate and affordable housing in Menlo Park could provide additional housing options for households in the city and nearby and provide a small step toward relieving overcrowded conditions.

Figure 4: Persons per Room, Menlo Park and the Two-County Region



Source: U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Table B25014.

Recent Employment Growth

Menlo Park has seen significant job growth in recent years, far exceeding population growth; between 2010 and 2019, employment more than doubled from approximately 23,000 to 53,000, as the tech economy has boomed. The rate of growth far outstrips the two-county region, even as the region showed an increase of almost 32 percent, or 370,000 jobs, over the same period. The local and regional growth have created substantial pressure on housing markets in Menlo Park and surrounding communities.

Table 6: Employment Growth, 2010-2019

Year	Menlo Park	Two-County Region
2010	22,721	1,169,299
2011	27,316	1,194,144
2012	29,406	1,227,291
2013	30,830	1,294,054
2014	33,414	1,343,934
2015	38,993	1,394,800
2016	39,091	1,443,509
2017	43,265	1,466,300
2018	48,548	1,512,815
2019	52,830	1,538,448
Percent Change, 2010-2019	133%	32%

Sources: U.S. Census Bureau, Longitudinal Employer-Household Dynamics via OnTheMap,; BAE, 2021.

Jobs Housing Balance

Menlo Park has far more jobs than employed residents; there are 3.2 jobs for every employed resident in the city (see Table 7). The two-county region is more balanced but still has more jobs than employed residents, at 1.14 jobs per working resident. As a result, Menlo Park has high net in-commuting, and the region also imports workers. Additional housing in Menlo Park would address the current imbalance between workers and jobs in the city, if not in the region overall, as workers seek to avoid long commutes and to live close to their workplace,

Table 7: Jobs to Working Residents, 2019

	Menlo Park	Two-County Region
Total Jobs	52,830	1,538,448
Employed Residents	16,518	1,350,416
Ratio, Jobs to Employed Residents	3.20	1.14

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2019).

Household and Employment Projections

The Metropolitan Transportation (MTC) and Association of Bay Area Governments (ABAG) released Plan Bay Area 2050 in October 2021. This study includes household and employment estimates for 2050, from a 2015 baseline. Currently, the projections are only available for counties and "superdistricts," which are subareas of the nine counties in the ABAG region, with no estimates specifically for Menlo Park.

Plan Bay Area projects that South San Mateo County, which includes Menlo Park, will gain 26,000 additional households and 44,000 additional jobs between 2015 and 2050. The Two-County

Region will see an increase of 581,000 households and 625,000 jobs over the same period. As a result, there will be continued demand for new housing over the next few decades both locally in Menlo Park and regionally.

Table 8: Household and Employment Projections, 2050

South San Mateo County (a)	2015	2050	Annual Growth
Household	80,000	106,000	0.8%
Employment	152,000	196,000	0.7%
San Mateo and Santa Clara Counties	**2015**	**2050**	**Annual Growth**
Household	888,000	1,469,000	1.4%
Employment	1,492,000	2,117,000	1.0%

(a) Atherton, Menlo Park, Redwood City, Woodside, East Palo Alto, Portola Valley, San Carlos are the primary jurisdictions in the South San Mateo Superdistrict.

Source: "Plan Bay Area 2050: Forecasting and Modeling Report," Association of Bay Area Governments & Metropolitan Transportation Commission, October 2021.

Real Estate Market Conditions

This section provides information on current and recent housing market conditions in Menlo Park. This includes discussion of recent and proposed residential projects, current rent and vacancy trends, and prices for condominiums and townhomes.

Recent and Planned Residential Construction in Menlo Park

Most of the recent residential construction activity in the city has been in larger multifamily structures. As shown in Table 9, from 2018 through 2021 building permits were issued for 343 multifamily units in buildings of five or more units, with the remaining 140 being for single-family units.[1] However, the multifamily permits were all issued in 2018 and in 2019. In 2020 and 2021, permits have only been issued for 35 single-family units.

However, as of December 2021 there are almost 3,900 additional housing units in the planning pipeline in Menlo Park, as shown in Appendix A. Most of these units are in large multifamily projects.

[1] Issuance of a permit usually leads to actual construction, but not always.

Table 9: Residential Construction Activity, City of Menlo Park, 2018-2021

Building Permits by Type of Structure	2018		2019		2020		2021	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Single-Family Units	56	27.6%	49	20.0%	12	100.0%	23	100.0%
Multifamily 2 units	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Multifamily 3-4 units	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Multifamily 5+ units	147	72.4%	196	80.0%	0	0.0%	0	0.0%
Total Permitted Units	**203**	**100.0%**	**245**	**100.0%**	**12**	**100.0%**	**23**	**100.0%**

Sources: U.S. Department of Housing and Urban Development State of the Cities Data System (SCODS); BAE, 2022.

Multifamily Market Overview

CoStar, a real estate data vendor tracking rental residential and other property types, shows three projects in Menlo Park built in 2016 or thereafter (see Table 10), containing a total of 735 units. Vacancies are low in these projects, at only 2.3 percent as of the third quarter of 2021. Rents increased by ten percent from a year before, with the average asking rent at over $3,600 per month, or $3.96 per square foot. Because of the limited inventory of recently constructed projects in Menlo Park, BAE also looked at market conditions in Redwood City, which has seen almost 2,000 new rental apartments come onto the market since the beginning of 2016. Vacancies appear high, due to the gradual absorption of new units, but asking rents are slightly higher than in Menlo Park, at more than $3,700 per month or $4.20 per square foot. The rent levels and the increase year-over-year point to a strong rental housing market for new units in Menlo Park and nearby communities.

Table 10: Multifamily Rental Summary for Recently Built Projects, 3rd Quarter 2021

Multifamily Summary, Market-Rate (a)	City of Menlo Park	City of Redwood City	Two-County Region
Inventory, Q3 2021 (bldgs) (b)	**3**	**9**	**12,785**
Inventory, Q3 2021 (units) (b)	**735**	**1,957**	**242,774**
Occupied Units	718	1,413	226,179
Vacant Units	17	369	16,172
Vacancy Rate	2.3%	20.7%	
Average Inventory Size, Q3 2021 (sf)	**918**	**885**	**857**
Average Asking Rents			
Average Asking Rent, Q3 2020	$3,303	$3,359	$2,610
Average Asking Rent, Q3 2021	$3,632	$3,715	$2,761
% Change Q3 2020 - Q3 2021	10.0%	10.6%	5.8%
Average Asking Rents psf			
Average Asking Rent psf, Q3 2020	$3.60	$3.80	$3.08
Average Asking Rent psf, Q3 2021	$3.96	$4.20	$3.26
% Change Q3 2020 - Q3 2021	10.0%	10.5%	5.8%

Notes:
(a) Market-rate units represent those that are in market-rate and market-rate/affordable-mix properties. Affordable units in 100 percent affordable-rent properties were excluded.
(b) Inventory reflects properties built in 2016 or later.

Sources: CoStar Group, 2021; BAE, 2021.

Rents from Selected Apartment Properties

To further analyze the local rental market, BAE gathered more detailed information on specific newer projects in Menlo Park and Redwood City comparable to the proposed 123 Independence apartment component. For the seven properties considered, the average asking contract rents ranged from $3,373 to $3,952. By unit size, studio rents ranged from $2,719 to $3,035; one bedroom units from $2,834 to $3,554; two bedroom units from $4,035 to $4,636; and three bedroom units from $4,809 to $6,630. None of these market-rate projects contained units larger than three bedrooms.

Table 11: Multifamily Rents from Selected Menlo Park and Redwood City Properties

Unit Size	Avg SF	Total Units		Direct Vacant Units		Avg. Asking Rent		Avg. Effective Rent	
		Number	Percent	Number	Percent	per Unit	per SF	per Unit	per SF
Menlo Park Anton Menlo - 3639 Haven Ave.									
Studio	568	40	10.2%	1	14.3%	(a)	(a)	(a)	(a)
1 BR	761	174	44.2%	5	71.4%	$3,554	$4.76	$3,545	$4.74
2 BR	1,104	150	38.1%	1	14.3%	$4,472	$3.71	$4,461	$3.71
3 BR	1,553	30	7.6%	0	0.0%	(a)	(a)	(a)	(a)
Total Bedrooms	**932**	**394**	**100.0%**	**7**	**100.0%**	**$3,819**	**$4.34**	**$3,810**	**$4.33**
Menlo Park Elan Menlo - 3549 Haven Ave.									
Studio	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
1 BR	763	74	50.7%	3	60.0%	$3,268	$4.34	$3,132	$4.16
2 BR	1,017	66	45.2%	1	20.0%	$4,035	$3.90	$3,866	$3.74
3 BR	1,249	6	4.1%	1	20.0%	$4,869	$3.90	$4,666	$3.74
Total Bedrooms	**898**	**146**	**100.0%**	**5**	**100.0%**	**$3,510**	**$4.23**	**$3,364**	**$4.05**
Menlo Park 777 Hamilton - 777 Hamilton Ave.									
Studio	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
1 BR	740	117	60.0%	4	57.1%	$2,834	$3.83	$2,816	$3.81
2 BR	1,029	52	26.7%	2	28.6%	$4,159	$4.00	$4,134	$3.98
3 BR	1,391	26	13.3%	1	14.3%	$4,809	$3.50	$4,779	$3.48
Total Bedrooms	**904**	**195**	**100.0%**	**7**	**100.0%**	**$3,373**	**$3.81**	**$3,352**	**$3.79**
Redwood City Encore - 855 Veterans Blvd. (a)									
Studio	674	8	8.9%	0	n.a.	$2,731	$4.05	$2,722	$4.04
1 BR	823	37	41.1%	0	n.a.	$3,424	$4.16	$3,412	$4.15
2 BR	1,128	38	42.2%	0	n.a.	$4,442	$3.94	$4,429	$3.93
3 BR	1,399	7	7.8%	0	n.a.	$5,474	$3.91	$5,455	$3.90
Total Bedrooms	**983**	**90**	**100.0%**	**0**	**0.0%**	**$3,952**	**$4.02**	**$3,939**	**$4.01**
Redwood City Huxley - 1355 El Camino Real									
Studio	646	23	16.8%	2	25.0%	$2,789	$4.53	$2,770	$4.50
1 BR	782	79	57.7%	3	37.5%	$3,260	$4.08	$3,238	$4.05
2 BR	1,162	35	25.5%	3	37.5%	$4,257	$3.60	$4,229	$3.57
3 BR	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
Total Bedrooms	**856**	**137**	**100.0%**	**8**	**100.0%**	**$3,604**	**$3.87**	**$3,580**	**$3.84**
Redwood City Indigo - 675 Bradford St.									
Studio	547	55	11.9%	0	0.0%	$2,719	$5.05	$2,692	$5.00
1 BR	759	298	64.4%	8	66.7%	$3,395	$4.53	$3,361	$4.49
2 BR	1,174	95	20.5%	4	33.3%	$4,636	$3.92	$4,590	$3.88
3 BR	1,481	15	3.2%	0	0.0%	$6,630	$4.48	$6,564	$4.43
Total Bedrooms	**842**	**463**	**100.0%**	**12**	**100.0%**	**$3,726**	**$4.39**	**$3,689**	**$4.34**
Redwood City Blu Harbor - 1 Blue Harbor Blvd.									
Studio	588	28	7.0%	0	0.0%	$3,035	$5.16	$3,017	$5.13
1 BR	842	231	57.5%	9	52.9%	$3,383	$4.02	$3,363	$3.99
2 BR	1,265	112	27.9%	6	35.3%	$4,223	$3.34	$4,199	$3.32
3 BR	1,560	31	7.7%	2	11.8%	$5,863	$3.76	$5,824	$3.73
Total Bedrooms	**998**	**402**	**100.0%**	**17**	**100.0%**	**$3,784**	**$3.79**	**$3,762**	**$3.77**

(a) Because there are no vacant units, rents reflect CoStar estimates and not actual average asking rent estimates.

Sources: CoStar Group, 2021; BAE, 2021.

Home Sales Prices

In addition to rental apartments the Proposed Project includes for sale townhome units. Table 12 below provides information on condominium and townhome sales in the local market. A period back to December 2018 is considered in order to provide a sufficient sampling of units for each size (by number of bedrooms). The overall median sale price for these two unit types over the period was $1.41 million, with medians ranging from approximately $1.18 million for two-bedroom units to $1.95 million for four-bedroom units. These housing prices indicate strong demand for higher density housing in Menlo Park and nearby communities.

Table 12: Home Sale Prices for Condominiums and Townhomes in Menlo Park and Redwood City, December 2018 to October 2021

Sale Price Range	2 BR	3 BR	4+ BR	Total	Percent of Total
Less than $1,250,000	24	3	0	27	**27.6%**
$1,250,000-$1,499,999	13	19	0	32	**32.7%**
$1,500,000-$1,749,999	0	20	2	22	**22.4%**
$1,750,000 or more	2	5	10	17	**17.3%**
Total Units Sold	**39**	**47**	**12**	**98**	**100.0%**
Percent of Total					
Median Sale Price	**$1,175,000**	**$1,500,000**	**$1,950,000**	**$1,406,500**	
Average Sale Price	**$1,228,218**	**$1,533,634**	**$2,155,324**	**$1,488,216**	
Average Unit Size (SF	**1,457**	**1,792**	**2,102**	**1,697**	
Median Price per SF	**$833.00**	**$837.00**	**$956.00**	**$839.50**	
Average Price per SF	**$845.31**	**$861.32**	**$1,032.00**	**$875.85**	

Sources: Redfin, 2021; BAE, 2021.

NET IMPACT ON HOUSING SUPPLY AND DEMAND BY INCOME LEVEL

To serve as the basis for the impact assessment, this section estimates the net impacts of the Proposed Project on housing supply and demand, by income level. This estimate steps through estimations of the following components:

- Change in housing supply by income level
- Net direct change in worker housing demand
- Indirect and induced job impacts and related regional worker housing demand
- Net effect on housing demand/supply

As part of the analysis, BAE has estimated the indirect and induced housing demand generated by household spending associated with the proposed project's new housing component as inputs for the IMPLAN ("IMpact analysis for PLANning") model. The model estimates the number of jobs that would be supported by the increased spending of new households associated with proposed housing units on goods and services within the two-county area. BAE has converted workers to households and used Public Use Microdata Sample (PUMS) data from the U.S. Census American Community Survey to estimate the household income levels associated with projected workers within the relevant industry sectors.

Change in Housing Supply by Income Level

Table 2 above presents the proposed development plan, which shows the net increase in housing supply, since no existing housing is being removed by the Proposed Project. Based on rents and sales prices in the area as discussed in the real estate market section and the most recent income limits in effect (2021), Table 13 presents estimates of the rent levels and sales prices for both the below market and market rate components of the Proposed Project, along with the average estimated incomes associated with each unit type by rent/sales price.

Table 13: Rents, Sale Prices, and Required Household Incomes

GROSS APARTMENT RENTS BY UNIT TYPE

Below Market Rate	# of Units	Assumed Gross Rent			Household Income		
		Very Low	Low	Moderate	Very Low	Low	Moderate
Studio	14	$1,598	$2,558	$3,141	$63,950	$102,320	$125,650
1 BR / 1 ba	28	$1,713	$2,741	$3,366	$68,525	$109,640	$134,625
2 BR / 2 ba	6	$2,056	$3,290	$4,039	$82,250	$131,600	$161,550

Market Rate	# of Units	Assumed Gross Rent	Household Income
Studio	75	$2,978	$119,120
1 BR / 1 ba	157	$3,472	$138,880
2 BR / 2 ba	36	$4,537	$181,480

TOWNHOME UNIT PRICES

Below Market Rate	# of Units	Assumed Sale Price			Household Income		
		Very Low	Low	Moderate	Very Low	Low	Moderate
2 BR / 1.5 ba	6	$240,763	$468,707	$605,758	$82,250	$131,750	$161,550
4 BR / 2 ba, 4 BR 2.5 ba	12	$350,012	$643,897	$820,691	$106,000	$169,800	$208,200

Market Rate	# of Units	Assumed Sale Price	Household Income
2 BR / 2.5 ba	34	$1,200,000	$290,594
3 BR / 3.5 ba	64	$1,500,000	$355,781

Sources: CA Dept of Housing and Community Development; CA Tax Credit Allocation Committee; City of Menlo Park; CoStar; BAE.

Since the Proposed Project provides a variety of units at a variety of rent levels, including the below market units, the project will generate households at a variety of income levels and household sizes. These households will then spend money locally and regionally, creating additional demand for workers in various industries at various earnings levels, which will in turn create additional demand for housing across a range of costs. In economic terminology, the additional jobs generated by the project's households are a type of *induced* impacts. To estimate these impacts, the analysis here uses the IMPLAN input-output model, which provides estimates of the number of new jobs created in the Two-County Region to serve the new project households. IMPLAN is a widely-recognized and utilized model and is described in detail in Appendix B.

For the housing supply analysis, the analysis requires the creation of IMPLAN household income events, based on the total household income in each of a range of household incomes. IMPLAN defines household income somewhat differently than other sources, so the household incomes must be adjusted somewhat from those found above in Table 13. As part of this adjustment, the number of workers per households is estimated, and for this analysis the numbers are based on data from the Public Use Microdata Sample (PUMS) from the most recently available American Community Survey (ACS) conducted by the US Census Bureau. PUMS data is a sample of individual responses to the ACS, with some responses edited to preserve confidentiality. This source allows analysis not available from published ACS data, including cross-tabulations of detailed variables. For this analysis, it can provide a frequency distribution of the number of workers by income level by unit size (as measured by number of bedrooms). The average number of workers by unit size and income

category is shown in Table 14. This also shows how the PUMS data is utilized to differentiate the number of workers per household by income level rather than applying an overall average; households at the lowest household income levels contain less workers per household.

Table 14: Average Number of Workers per Household by Income and Unit Size

	Average Number of Workers per Household					
Income Level	Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom	All Worker Households
Extremely Low	1.00	1.24	1.46	1.48	1.48	1.40
Very Low	1.00	1.49	1.75	1.81	1.79	1.71
Low	1.00	1.46	1.87	2.05	2.13	1.89
Moderate	1.00	1.44	1.82	2.09	2.19	1.93
Above Moderate	1.00	1.40	1.76	2.04	2.27	1.94
Above 150%	1.00	1.52	1.84	2.02	2.05	1.96

Sources: HUD; CA Dept. of Housing and Community Development; US Census Bureau American Community Survey 2015-2019 Public Use Microdata Sample; BAE, 2022.

These figures are then used in the analysis to calculate the adjusted income levels to input into IMPLAN, as detailed in Appendix C. The adjusted household income, and the total income associated with each unit type, are shown in Table 15. The aggregate incomes are then used in IMPLAN across the IMPLAN income categories to estimate the total number of induced jobs associated with the Proposed Project.

Table 15: Adjusted Household Income Summary

APARTMENTS

Very Low Income	Studio	1 BR	2 BR
Total Adjusted HH Personal Income	$70,022	$75,032	$90,060
Number of Units	5	9	2
Aggregate Adjusted HH Personal Income	$350,112	$675,287	$180,120

Low Income	Studio	1 BR	2 BR
Total Adjusted HH Personal Income	$112,036	$120,051	$144,096
Number of Units	5	9	2
Aggregate Adjusted HH Personal Income	$560,180	$1,080,459	$288,193

Moderate Income	Studio	1 BR	2 BR
Total Adjusted HH Personal Income	$125,650	$147,409	$176,890
Number of Units	4	10	2
Aggregate Adjusted HH Personal Income	$502,600	$1,474,085	$353,780

Market Rate	Studio	1 BR	2 BR
Total Adjusted HH Personal Income	$130,431	$152,068	$198,713
Number of Units	75	157	36
Aggregate Adjusted HH Personal Income	$9,782,342	$23,874,608	$7,153,658

TOWNHOMES

Very Low Income	2 BR	4 BR
Total Adjusted HH Personal Income	$90,060	$116,065
Number of Units	2	4
Aggregate Adjusted HH Personal Income	$180,120	$464,262

Low Income	2 BR	4 BR
Total Adjusted HH Personal Income	$144,261	$185,924
Number of Units	2	4
Aggregate Adjusted HH Personal Income	$288,521	$743,694

Moderate Income	2 BR	4 BR
Total Adjusted HH Personal Income	$176,890	$227,970
Number of Units	2	4
Aggregate Adjusted HH Personal Income	$353,780	$911,880

Market Rate	2 BR	3 BR
Total Adjusted HH Personal Income	$318,187	$393,008
Number of Units	34	64
Aggregate Adjusted HH Personal Income	$10,818,369	$25,152,540

Sources: HUD; CA Dept. of Housing and Community Development; US Bureau of Labor Statistics; IMPLAN; BAE, 2022.

Based on the household income as estimated above, IMPLAN estimates that household expenditures for the Proposed Project would result in an additional 169 induced jobs in the Two-County Region. IMPLAN uses a 546-sector scheme to allocate this employment; BAE has grouped this employment by major industry sector, as shown in Table 16 below. Sectors showing the most employment (over 20 jobs) included retail trade; finance, insurance, and real estate; health care and social assistance; and leisure and hospitality.

Table 16: Resident-Generated Induced Employment

NAICS Code	Industry	Total Jobs (a)
Private Sector		
11, 21	Agriculture & Natural Resources	0.29
23	Construction	1.24
31-33	Manufacturing	0.78
42	Wholesale Trade	3.41
44-45	Retail Trade	25.25
48-49, 22	Transportation, Warehousing, & Utilities	7.59
51	Information	3.09
52-53	Finance, Insurance, & Real Estate	20.82
54-55	Professional, Scientific, & Technical Services, & Mgmt of Companies	5.50
56	Admin, Support, & Waste Mgmt Srvcs	6.06
61	Educational Services	8.70
62	Health Care & Social Assistance	40.28
71-72	Leisure & Hospitality	27.31
81	Other Services Except Public Admin	17.97
Public Sector		1.06
Total Jobs		**169**

(a) Job estimates are the output of the IMPLAN model.

Sources: IMPLAN; BAE, 2022.

In order to estimate the household income distribution of these workers, BAE turned again to the ACS PUMS data. Using this source, BAE generated a matrix of household incomes by income category and major industry group, as shown in Appendix D. Applying this distribution to the induced jobs results in the distribution shown in Table 17. This table also applies the average number of workers by household income category as shown above in Table 14 to estimate the total number of households associated with these induced jobs. Ninety-two households can be attributed to the estimated 196 induced jobs resulting from expenditures of households in the Proposed Project; of those 92, 54 would be households with extremely low to moderate incomes.

Table 17: Induced Employment Generated by Proposed Project by Income Level

NAICS Code	Industry	Total Jobs (b)	Estimated Jobs by Percent of AMI (a) Extremely Low	Very Low	Low	Moderate	Above Moderate	Above 150%
Private Sector								
11, 21	Agriculture & Natural Resources	0.29	0.05	0.07	0.06	0.03	0.02	0.06
23	Construction	1.24	0.14	0.20	0.31	0.18	0.13	0.28
31-33	Manufacturing	0.78	0.03	0.05	0.11	0.10	0.10	0.38
42	Wholesale Trade	3.41	0.19	0.41	0.62	0.40	0.46	1.32
44-45	Retail Trade	25.25	2.63	3.70	6.20	3.16	2.53	7.04
48-49, 22	Transportation, Warehousing, & Utilities	7.59	0.69	1.24	2.00	1.06	0.76	1.84
51	Information	3.09	0.07	0.10	0.32	0.26	0.32	2.02
52-53	Finance, Insurance, & Real Estate	20.82	0.92	1.47	3.11	2.23	2.59	10.49
54-55	Professional, Scientific, & Technical Services, & Mgmt of Companies	5.50	0.15	0.20	0.53	0.59	0.69	3.35
56	Admin, Support, & Waste Mgmt Srvcs	6.06	0.94	1.17	1.50	0.75	0.54	1.16
61	Educational Services	8.70	0.54	0.85	1.68	1.20	1.13	3.29
62	Health Care & Social Assistance	40.28	2.89	4.08	7.79	5.36	5.38	14.77
71-72	Leisure & Hospitality	27.31	4.28	4.74	7.17	3.37	2.81	4.94
81	Other Services Except Public Admin	17.97	2.69	3.41	3.97	2.33	1.73	3.85
Public Sector		1.06	0.07	0.09	0.21	0.16	0.16	0.37
	Total Jobs	**169**	**16**	**22**	**36**	**21**	**19**	**55**
	Workers per Households (c)	1.83	1.40	1.71	1.89	1.93	1.94	1.96
	Number of Households	**92**	**12**	**13**	**19**	**11**	**10**	**28**

Notes:
(a) Based on 2019 HCD Income Limits in order to match PUMS data vintage.
(b) Job estimates are the output of the IMPLAN model. Columns to right may not sum to Total Jobs due to independent rounding.
(c) Average number of workers per worker household by income category calculated based on American Community Survey PUMS Analysis, 2015-2019.

Sources: American Community Survey, 2015-2019, including the Public Use Microdata Sample; CA Department of Housing and Community Development (HCD); IMPLAN; BAE, 2021.

Net Direct Change in Housing Demand from Workers on Proposed Project Site

The Proposed Project is entirely residential, so the only new jobs created by the project will be related to property management. However, there will be a reduction in jobs due to removal of the existing commercial and industrial buildings onsite. Based on various sources, the following table shows the estimated jobs to be removed from the project site. The total direct employment loss is estimated at 115 jobs.

Table 18: Existing Jobs to be Removed

Address	Tenant	Type of Business	NAICS	Estimated Number of Workers
119 Independence	Davey Tree	Tree care and environmental consulting	561730	15
123-25 Independence	Harris Technologies	Defense Contractor	334511	21
127 Independence:	Artio Medical, Inc.	Medical Device R&D	3391	12
1205 Chrysler	Vacant	N/A	na	0
130 Constitution	Harris Technologies	Defense Contractor	334511	65
NA	Maintenance Workers	Equivalent total jobs estimated to maintain properties (a)	5617	2
Total Estimated Number of Jobs Removed				**115**

(a) Building services staff not expected to be directly employed by tenants. Total staff was estimated by BAE based on a ratio of 1 employee per 37,000 square feet derived from data found in International Facility Management Association (IFMA), "Operations and Maintenance Benchmarks Research Report #33."

Sources: City of Menlo Park; International Facilities Management Association; BAE.

The next step is to estimate the current household incomes for the workers. These workers fall in a range of earning and household income categories, thus likely occupying housing across a broad range of values. To estimate the income distribution of these workers, BAE developed a matrix of worker household income ranges by industry using the most recent Public Use Microdata Sample (PUMS) data from the American Community Survey (ACS) similar to the one used for the analysis above regarding the impacts of the new housing, but for more specific industries. This data set allows for detailed cross-tabulations not available through the published ACS data, using the standard income limits by household size as published by the California Department of Housing and Community Development. The analysis here uses PUMS data for the Two-County Region (San Mateo and Santa Clara County) to estimate the distribution of household incomes of workers by industry and the estimated income distribution is shown in Table 19. The number of direct jobs lost and the resulting decline of 61 households is shown in Table 20. Of those 61, 27 would be extremely low to moderate income households.

Table 19: Household Income Level by Industry

Census NAICS Code	Industry	Number of Workers	Estimated Household Income as a Percent of AMI: Extremely Low	Very Low	Low	Moderate	Above Moderate	Above 150%
3345	Naivigational, Measuring, Electromedical, and Control Instrument Manufacturing	86	2.3%	6.1%	11.2%	11.2%	11.8%	57.4%
3391	Medical Equilpment and Supplies Manufacturing	12	3.6%	6.3%	17.6%	13.7%	12.9%	46.0%
56173	Professiional Landscaping Services	15	23.0%	23.0%	28.0%	12.7%	4.2%	9.1%
5617Z	Services to buildings & dwellings (except cleaning during construction & immediately after construction)	2	24.2%	28.1%	24.2%	9.7%	5.4%	8.4%
Total Workers		115						

Notes:
Based on a cross tabulation of Public Use Microdata Samples (PUMS) from the 2015-2019 American Community Survey. These incomes were compared to household income limits published by the State of CA Department of Housing and Community Development (HCD) to determine the percentage of households falling into each income category. The analysis controlled for household size, to address the varying HCD income limits for each household size.

Sources: Census, American Community Survey Public Use Microdata Sample (PUMS) 2015-2019; HCD; BAE, 2021.

Table 20: Project-Only (Direct) Existing Employment Loss by Income Level from 123 Independence

NAICS Code (b)	Industry	Total Jobs	Estimated Jobs by Percent of AMI (a): Extremely Low	Very Low	Low	Moderate	Above Moderate	Above 150%
3345	Naivigational, Measuring, Electromedical, and Control Instrument Manufacturing	-86.0	-2.0	-5.2	-9.6	-9.6	-10.2	-49.4
3391	Medical Equilpment and Supplies Manufacturing	-12.0	-0.4	-0.8	-2.1	-1.6	-1.5	-5.5
56173	Professiional Landscaping Services	-15.0	-3.5	-3.5	-4.2	-1.9	-0.6	-1.4
5617Z	Services to buildings and dwellings (except cleaning during construction and immediately after construction)	-2.0	-0.5	-0.6	-0.5	-0.2	-0.1	-0.2
	Total Jobs	**-115**	**-6**	**-10**	**-16**	**-13**	**-12**	**-56**
	Workers per Households (c)	1.88	1.40	1.71	1.89	1.93	1.94	1.96
	Number of Households	**-61**	**-5**	**-6**	**-9**	**-7**	**-6**	**-29**

Notes:
(a) Based on 2019 HCD Income Limits in order to match PUMS data vintage.
(b) Code as used by Census PUMS. May vary from standard NAICS codes.
(c) Average number of workers per worker household by income category calculated based on American Community Survey PUMS Analysis, 2015-2019.

Sources: American Community Survey, 2015-2019, including the Public Use Microdata Sample; CA Department of Housing and Community Development (HCD); BAE, 2021.

As with the increase in jobs due to household spending, the net loss of direct jobs at the Project site will lead to *indirect* job losses in the supply chain for the impacted businesses, and to *induced* job losses due to the decline in spending in the region by the direct workers no longer employed in the

area. IMPLAN has been used to estimate these losses of change in employment, following an approach similar to that used for the analysis of the impacts of the new housing above. Overall, the indirect and induced job losses resulting from removal of the existing businesses from the project site total 77 jobs (see Table 21).

Table 21: Indirect and Induced Employment Loss from Proposed Project

NAICS Code	Industry	Total Jobs (a)
Private Sector		
11, 21	Agriculture & Natural Resources	-0.15
23	Construction	-0.40
31-33	Manufacturing	-2.14
42	Wholesale Trade	-5.46
44-45	Retail Trade	-5.37
48-49, 22	Transportation, Warehousing, & Utilities	-4.06
51	Information	-2.23
52-53	Finance, Insurance, & Real Estate	-6.82
54-55	Professional, Scientific, & Technical Services, & Mgmt of Companies	-21.70
56	Admin, Support, & Waste Mgmt Srvcs	-7.80
61	Educational Services	-1.79
62	Health Care & Social Assistance	-8.14
71-72	Leisure & Hospitality	-6.14
81	Other Services Except Public Admin	-4.42
Public Sector		-0.35
Total Jobs		**-77**

(a) Job estimates are the output of the IMPLAN model.

Sources: IMPLAN; BAE, 2022.

The household income distribution of these workers is again based on the ACS PUMS data and relies on the matrix of incomes by industry shown in Appendix D, and applying this distribution to the induced jobs results in the distribution shown below. Table 22 applies the average number of workers by household income category as shown above in Table 14 to estimate the total number of households associated with these induced jobs. Forty-one households can be attributed to the estimated 77 indirect and induced jobs lost due to the redevelopment and conversion of the Proposed Project site from commercial and industrial to residential. Of those 41, 21 would be households with extremely low to moderate incomes.

Table 22: Indirect and Induced Employment Loss by Household Income Level

NAICS Code	Industry	Total Jobs (b)	Estimated Jobs by Percent of AMI (a) Extremely Low	Very Low	Low	Moderate	Above Moderate	Above 150%
11, 21	Agriculture & Natural Resources	-0.15	-0.02	-0.04	-0.03	-0.02	-0.01	-0.03
23	Construction	-0.40	-0.05	-0.06	-0.10	-0.06	-0.04	-0.09
31-33	Manufacturing	-2.14	-0.09	-0.15	-0.31	-0.27	-0.27	-1.06
42	Wholesale Trade	-5.46	-0.31	-0.66	-1.00	-0.64	-0.74	-2.11
44-45	Retail Trade	-5.37	-0.56	-0.79	-1.32	-0.67	-0.54	-1.50
48-49, 22	Transportation, Warehousing, & Utilities	-4.06	-0.37	-0.66	-1.07	-0.57	-0.41	-0.99
51	Information	-2.23	-0.05	-0.07	-0.23	-0.19	-0.23	-1.46
52-53	Finance, Insurance, & Real Estate	-6.82	-0.30	-0.48	-1.02	-0.73	-0.85	-3.43
54-55	Professional, Scientific, & Technical Services, & Mgmt of Companies	-21.70	-0.58	-0.80	-2.07	-2.33	-2.70	-13.21
56	Admin, Support, & Waste Mgmt Srvcs	-7.80	-1.22	-1.51	-1.93	-0.97	-0.70	-1.49
61	Educational Services	-1.79	-0.11	-0.17	-0.34	-0.25	-0.23	-0.68
62	Health Care & Social Assistance	-8.14	-0.58	-0.82	-1.57	-1.08	-1.09	-2.98
71-72	Leisure & Hospitality	-6.14	-0.96	-1.07	-1.61	-0.76	-0.63	-1.11
81	Other Services Except Public Admin	-4.42	-0.66	-0.84	-0.98	-0.57	-0.43	-0.95
	Government Enterprises	-0.35	-0.02	-0.03	-0.07	-0.05	-0.05	-0.12
	Total Jobs	**-77**	**-6**	**-8**	**-14**	**-9**	**-9**	**-31**
	Workers per Households (c)	1.86	1.40	1.71	1.89	1.93	1.94	1.96
	Number of Households	**-41**	**-4**	**-5**	**-7**	**-5**	**-5**	**-16**

Notes:
(a) Based on 2019 HCD Income Limits in order to match PUMS data vintage.
(b) Job estimates are the output of the IMPLAN model. Columns to right may not sum to Total Jobs due to independent rounding.
(c) Average number of workers per worker household by income category calculated based on American Community Survey PUMS Analysis, 2015-2019.

Sources: American Community Survey, 2015-2019, including the Public Use Microdata Sample; CA Department of Housing and Community Development (HCD); IMPLAN; BAE, 2021.

New Jobs and Household Creation Resulting from Proposed Project

While the removal of existing businesses from the Proposed Project will result in job loss, the housing units replacing those businesses will create demand for a limited number of onsite workers associated with property management and maintenance. It is assumed that the workers providing maintenance and services for the ownership housing will be based elsewhere. To estimate the number of workers associated with the rental housing, BAE reviewed employment generation factors from a survey conducted by the National Apartment Association as shown in Appendix E. Using the benchmarks provided, where properties with between 300 and 400 units will require one worker per 45.1 units, it is estimated that the 316 apartments will generate a total of seven jobs. These jobs will be in NAICS Sector 5617, Services to Buildings and Dwellings.

As shown in Table 23, the combination of the directly employed workers and those related to indirect and induced impacts result in a small overall increase in the number of households. The nine additional workers would be responsible for five additional households, four of them in the extremely low to moderate income range.

Table 23: Impacts from Employment Related to Services Provided to New Apartments

NAICS Code	Industry	Total Jobs (b)	Estimated Jobs by Percent of AMI (a) Extremely Low	Very Low	Low	Moderate	Above Moderate	Above 150%
11, 21	Agriculture & Natural Resources	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	Construction	0.01	0.00	0.00	0.00	0.00	0.00	0.00
31-33	Manufacturing	0.01	0.00	0.00	0.00	0.00	0.00	0.01
42	Wholesale Trade	0.04	0.00	0.01	0.01	0.01	0.01	0.02
44-45	Retail Trade	0.16	0.02	0.02	0.04	0.02	0.02	0.04
48-49, 22	Transportation, Warehousing, & Utilities	0.07	0.01	0.01	0.02	0.01	0.01	0.02
51	Information	0.05	0.00	0.00	0.01	0.00	0.01	0.04
52-53	Finance, Insurance, & Real Estate	0.20	0.01	0.01	0.03	0.02	0.03	0.10
54-55	Professional, Scientific, & Technical Services, & Mgmt of Companies	0.16	0.00	0.01	0.02	0.02	0.02	0.10
56	Admin, Support, & Waste Mgmt Srvcs	7.30	1.14	1.41	1.80	0.90	0.65	1.39
61	Educational Services	0.05	0.00	0.01	0.01	0.01	0.01	0.02
62	Health Care & Social Assistance	0.16	0.01	0.02	0.03	0.02	0.02	0.06
71-72	Leisure & Hospitality	0.15	0.02	0.03	0.04	0.02	0.02	0.03
81	Other Services Except Public Admin	0.16	0.02	0.03	0.04	0.02	0.02	0.03
	Government Enterprises	0.01	0.00	0.00	0.00	0.00	0.00	0.00
	Total Jobs (c)	**9**	**1**	**2**	**2**	**1**	**1**	**2**
	Workers per Households (d)	1.79	1.40	1.71	1.89	1.93	1.94	1.96
	Number of Households	**5**	**1**	**1**	**1**	**1**	**0**	**1**

Notes:
(a) Based on 2019 HCD Income Limits in order to match PUMS data vintage.
(b) Indirect and induced job estimates are the output of the IMPLAN model. Columns to right may not sum to Total Jobs due to independent rounding. Includes 7 direct jobs.
(c) Includes 7 direct jobs.
(d) Average number of workers per worker household by income category calculated based on American Community Survey PUMS Analysis, 2015-2019.

Sources: American Community Survey, 2015-2019, including the Public Use Microdata Sample; CA Department of Housing and Community Development (HCD); IMPLAN; BAE, 2021.

Net Housing Demand/Supply Effect

Aggregating the direct, indirect, and induced impact calculation from the preceding tasks, the net impacts on housing demand and supply are extremely small. The households in the new units in the Proposed Project are balanced by the new units they occupy, and the additional households associated with the induced jobs created by the expenditures of the new households in the project are roughly balanced out by the jobs linked to the closure of existing businesses at the project site. Overall, there is an estimated net decrease in housing demand for five units (see Table 24), but there is a net increase of ten units demand for units for extremely low, very low, and low income households, which is more than offset by the decrease in demand for market-rate units.

It should be noted that these workers would not necessarily work or live in Menlo Park. However, the net housing unit demand regionally, which is negative, is so small that much of the analysis that follows conservatively assumes the impacts will occur within Menlo Park or East Palo Alto.

Table 24: Net Housing Demand/Supply

	Estimated Household Income as a Percent of AMI						
Change in Number of Households	**Extremely Low**	**Very Low**	**Low**	**Moderate**	**Above Moderate**	**Above 150%**	**Total**
Due to Closure of Existing Businesses	-9	-11	-17	-12	-12	-42	-103
New Onsite Employment	1	1	1	1	0	1	5
From New Housing (a)	12	35	41	187	124	126	525
Less New Units (b)	0	-22	-22	-176	-114	-98	-432
Net New Housing Demand	**4**	**3**	**3**	**-1**	**-1**	**-13**	**-5**

Notes:
(a) Includes households occupying Proposed Project and additional households for workers associated with the induced impacts of the project.
(b) Some of the market rate rental units have rent levels affordable to the Moderate and Above Moderate income categories.

Source: BAE, based on sources as cited in previous tables.

MENLO PARK SHARE OF HOUSING IMPACTS

One of the goals of the Housing Needs Analysis is to estimate the direct, indirect, and induced housing needs from the Project in order to satisfy the requirements of a settlement agreement between the Cities of Menlo Park and East Palo Alto.

This section provides an estimate of the share of new direct, indirect, and induced housing demand related to the Proposed Project that would occur in Menlo Park and East Palo Alto based in large part on existing commute patterns. This section would usually also include a sensitivity analysis to estimate the housing demand in Menlo Park and East Palo Alto if housing demand among new workers differs somewhat from housing demand as indicated by existing commute patterns; but as discussed below, due to the extremely small number of units by income for which there is demand, the analysis will instead show what percentage of the demand by income category would have to be captured in Menlo Park to reach the point where the resulting calculation of the share of housing demand within Menlo Park does not round down to zero.

As shown in Table 25, data from the American Community Survey indicate that 8.9 percent of persons working in Menlo Park are Menlo Park residents.

Table 25: Proportion of Jobs in Menlo Park Held by Menlo Park Residents

	2015-2019
Total Jobs/Persons Working in Menlo Park	44,958
Persons Living and Working in Menlo Park	4,021
Percent of Persons Living and Working in Menlo Park	8.9%

Sources: U.S. Bureau of the Census American Community Survey, 2015-2019. 5-Year sample data, Tables B08604 and B08008; BAE, 2022.

Similar data directly from ACS are not available for East Palo Alto residents working in Menlo Park; however, 2012-2016 ACS data processed for the Census Transportation Planning Package[2] estimate that 3.0 percent of Menlo Park workers live in East Palo Alto.

Normally, the analysis here would take the net change in housing needs as described above and summarized in Table 24, and provide a scenario of housing demand within each city using current commute patterns and another scenario assuming some higher percentage of workers residing in Menlo Park and East Palo Alto. The net change estimate, however, shows that overall, the existing project would provide more units than would be demanded due to the net direct, indirect, and induced jobs generated by the project. Furthermore, for the lower-income unit types that show a few units of demand, taking the current proportions of Menlo Park and East Palo Alto workers who also

[2] U.S. Census Bureau, American Community Survey 2012-2016 Five-year estimates. Special Tabulation: Census Transportation Planning. This is the most recent data available.

reside in the two cities based on commute data and applying that proportion to each unit type individually would result in unit counts rounding to zero, even assuming local demand in Menlo Park and East Palo Alto for all of the units, including those created by indirect and induced jobs that would not necessarily be in Menlo Park or East Palo Alto. Distributing the demand across the region would also effectively "zero out" any specific housing need in either Menlo Park or East Palo Alto. Furthermore, while the suppliers, service providers, and retailers serving the Project occupants per the IMPLAN estimates could be anywhere in the two counties, it is likely that to some extent they will tend to be closer to Menlo Park and nearby East Palo Alto, as worker daytime expenditures would occur near the Project, and where services and suppliers are available in proximity to the Project, they would be more likely to be used by the Project's tenants.

Table 26 shows the estimated net lower income housing demand attributable to Menlo Park and East Palo Alto based on the current proportion of Menlo Park workers residing in the two cities, as well as at higher proportions. It is important to note that this assumes that all of the households with workers whose jobs are estimated to be created by the Proposed Project, including the indirect and induced jobs that could occur elsewhere in the two-county region, would seek housing in Menlo Park and East Palo at the same rate as the jobs created within Menlo Park itself. Even given this assumption, the impacts in Menlo Park or East Palo Alto are negligible.

The levels of demand shown are also near to nonexistent in the context of the overall housing market. Based on the ACS estimate of the proportion of workers living in Menlo Park or East Palo Alto (11.9 percent), and rounding to the nearest whole number, the housing need would be for zero units in the two cities. Increasing the capture rate to 13 would result in demand for one additional extremely low income unit in the two cities combined. Increasing the rate to 25 percent would result in demand for one additional unit each of extremely low, very low, and low income housing, and going to 50 percent would result in demand for two additional units at each of the three income levels.

Table 26: Sensitivity Analysis of Housing Needs in Menlo Park and East Palo Alto

Change in Number of Households	Household Income Category		
	Extremely Low	Very Low	Low
Net New Housing Demand	4	3	3
Demand in Menlo Park and East Palo Alto (a)			
Based on ACS (Menlo Park + East Palo Alto	11.9%		
Needs in Menlo Park and East Palo Alto (b)	0	0	0
Percent of Workers HHS in Two Cities	13%		
Needs in Menlo Park and East Palo Alto (b)	1	0	0
Percent of Workers HHS in Two Cities	25%		
Needs in Menlo Park and East Palo Alto (b)	1	1	1
Percent of Workers HHS in Two Cities	50%		
Needs in Menlo Park and East Palo Alto (b)	2	2	2

Notes:
(a) This assumes that the proportion of workers housed in Menlo Park and East Palo Alto would be the same even for the indirect and induced jobs that could be anywhere in the region.
(b) Rounded to nearest whole number.

Source: BAE, based on sources as cited in previous tables.

ANALYSIS OF IMPACTS ON LOCAL AND REGIONAL HOUSING MARKETS

This chapter uses the information provided in the previous chapters to evaluate the potential impacts that the Project could have on the local and regional housing supply, jobs-housing balance, and displacement pressures. The Project will result in a minimal impact on employment in Menlo Park and will also have only a minimal impact on employment at the regional level. The jobs removed (including directly, indirectly, and induced) due to the redevelopment of the project site will be balanced out by the very small number of new jobs onsite and resulting extremely limited indirect and induced employment linked to those jobs, along with the induced jobs resulting from the local and regional expenditures of the new residents of the Proposed Project. As a result, based on the analysis presented in this report the Project is likely to have a negligible impact on the regional housing market, jobs-housing balance, and displacement pressures.

Potential Impacts on Housing Supply

The project has an estimated overall negligible positive net impact on the regional housing supply of 15 units, due largely to the removal of several job-generating businesses on the project site which are roughly balanced by the number of additional induced jobs generated by the project. Just within Menlo Park, there are approximately 3,900 units, including the Proposed Project, in the pipeline (see Appendix A). It is likely that many of the new jobs linked to the project would actually be elsewhere in the two-county region, so the continued expansion of the housing supply just in Menlo Park, while critical to addressing regional housing challenges, could easily absorb demand from workers attributable to the Proposed Project seeking housing in Menlo Park, even without accounting for units made available through turnover of existing units.

However, it should be noted that the net impact is because the potential "oversupply" of moderate income and market rate units in the project is greater than the "undersupply" of lower income units; the analysis shows net need for an additional ten units of lower income housing. This demand would in reality be spread across the region, but the impacts in Menlo Park and East Palo Alto would be negligible if they are all attributed to the two cities.

Potential Impacts on Jobs-Housing Balance

The Proposed Project overall is estimated to create slightly more units than the net demand from worker households, but the change in demand would not be significantly different from the change in supply, thus resulting in little change in the overall jobs housing balance in the region. Even if the workers in the created offsite jobs all chose to reside in Menlo Park, there would be no meaningful change in the jobs-housing balance in the city. The net difference in housing demand is negligible.

It should be noted again that at lower income levels, there is a very slight net demand for more units, but this net demand is extremely small (ten units) in the context of the overall housing market for Menlo Park or especially the region.

Potential Displacement Impact Findings

Displacement and gentrification are a key issue locally and throughout the region and addressing the cumulative impact of the Project and other projects that generate new housing demand will be essential to addressing cumulative housing needs and mitigating displacement pressures over the long term. However, given the very limited potential impacts of the Project on the local and regional housing supply and jobs-housing balance, the Project is not likely to have a perceptible impact on local and regional displacement pressures. Furthermore, the Proposed Project is located in an area that is transitioning from commercial and industrial uses to mixed use development including residential, rather than being located in existing residential neighborhoods in Menlo Park such as Belle Haven, or in East Palo Alto, where lower income households currently are concentrated. Due to the regional nature of the housing market, the Project is unlikely to have any measurable impact on displacement pressures in Menlo Park and East Palo Alto.

LIMITING CONDITIONS

This study presents an assessment of current and potential future housing needs in Menlo Park, based on the identified data sources. It has been prepared to inform the decisions of the City regarding the Proposed Project and is not intended to be used to support any decision regarding the feasibility of the project or any other proposed development. Because of the limitations of the scope of this study, available data including any errors by data providers, and the methodologies used, along with the uncertainty inherent in long-term projections, actual future conditions may vary considerably from what is presented here. Market conditions are dynamic, and the analysis and findings presented in this study are subject to change at any time after the publication of this study, based on changes due to macroeconomic conditions at the global, national, and regional level; changes in legislation, regulations, and public policy actions; and decisions by developers, investors, firms, lenders, and other parties that may impact local market conditions and development potential.

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APPENDIX A: PLANNED AND PROPOSED PROJECTS, CITY OF MENLO PARK, DECEMBER 2021

Table A-1: Planned and Proposed Projects in Menlo Park, December 2021 (Page 1 of 2)

Project Name	Address	Status	Use	Total Units/Size	Project Description
Willow Village	1350-1390 Willow Rd. 925-1098 Hamilton Ave. 1005-1275 Hamilton Ct.	Under Review	Mixed-use; hotel, office, residential, and retail	1,735 dwelling units	1,735 dwelling units, up to 200,000 s.f. of commercial retail use, 193-room hotel, and 1.75 million s.f. of offices
Sobrato	123 Independence Dr.	Under Review	Residential	316 multifamily units 116 townhome units	432 dwelling units; 316 multifamily units and 116 townhomes
Menlo Flats	165 Jefferson Dr.	Under Review	Mixed-use; commercial and residential	158 multifamily units	Eight-story, 158-unit apartment development; 21 BMR units and 15,000 s.f. of commercial space along Jefferson Dr. frontage
1550 El Camino Real	1550 El Camino Real	Under Review	Residential	8 townhome units	Three-story residential building with eight townhouse-style units; one BMR unit
409 Glenwood Ave.	409 Glenwood Ave.	Approved	Residential	5 multifamily units	Two new multifamily buildings with underground parking; construction of five units to three existing units on site
706-716 Santa Cruz Ave.	706-716 Santa Cruz Ave.	Approved	Mixed-use; office, residential, and retail	4 dwelling units	Three-story, mixed-use building consisting of 12,035 s.f. of retail space, 23,454 s.f. of non-medical office space, and four residential units totaling to 11,414 s.f.
111 Independence Dr.	111 Independence Dr.	Approved	Mixed-use; residential and retail	105 multifamily units	Eight-story, multifamily building with 105 units; 14 of which units are BMR; a community-serviing retail space
1162 El Camino Real	1162 El Camino Real	Approved	Residential	9 multifamily units	Three-story, nine multifamily modular units
MidPen	1345 Willow Rd.	Approved	Residential	140 multifamily units	140 BMR multifamily unit; include a community room, courtyard, exercise room, teen room, after-school program space, two laundry rooms, and outdoor spaces
201 El Camino Real	201 El Camino Real	Approved	Mixed-use; office, residential, and retail	12 multifamily units 2 townhome units	Three-story, mixed-use building with restaurant and retail on the first floor and 14 dwelling units: 12 dwelling units on the second and third floor and two detached townhomes
1021 Evelyn St.	1021 Evelyn St.	Approved	Mixed-use; office and residential	3 dwelling units	6,610 s.f. of non-medical office space and three residential units making up 4,861 s.f.
Menlo Portal	115 Independence Dr. 104 and 110 Constitution Dr.	Approved	Mixed-use; office, residential, and retail	335 multifamily units	Seven-story residential building consisting of 335 multifamily units; three-story office building, 33,211 s.f. of office and 1,607 s.f. of commercial space
Menlo Uptown	141 Jefferson Dr. 180-186 Constitution Dr.	Approved	Residential	441 multifamily units 42 condominium units	Two seven-story multifamily buildings and six three-story condominium buildings consisting of 483 dwelling units: 441 multifamily units and 42 for-sale condominiums

Table A-1: Planned and Proposed Projects in Menlo Park, December 2021 (Page 2 of 2)

Springline	1300 El Camino Real	Under Construction	Mixed-use; commercial and residential	183	dwelling units	Three mixed-use buildings with approx. 220,000 s.f. of commercial use and 183 dwelling units
975 Florence Ln.	975 Florence Ln.	Under Construction	Residential	8	condominium units	Conversion of six existing apartments into condominiums and addition of two one-bedroom units, for a total of eight units
115 El Camino Real	115 El Camino Real	Under Construction	Mixed-use; commercial and residential	4	condominium units	Three-story building: two commercial condominiums on the first floor for commercial use, 1,485 s.f.; four residential condominiums on the second and third floor
Middle Plaza	500 El Camino Real	Under Construction	Mixed-use; office, residential, and retail	215	dwelling units	One mixed-use building, two office buildings, and four residential buildings: approx. 10,286 s.f. of retail space; 142,840 s.f. of non-medical office; 215 residential units
661-687 Partridge Ave.	661-687 Partridge Ave.	Under Construction	Residential	9	single-family units	Nine two-story, single-family residences
1275 El Camino Real	1275 El Camino Real	Under Construction	Mixed-use; office, residential, and retail	3	dwelling units	Three-story mixed-use building: 589 s.f. of retail, 9,066 s.f. of non-medical office, and three residential units, totaling approx. 6,893 s.f.
Beltramo's	1540 El Camino Real	Under Construction	Mixed-use; office and residential	27	dwelling units	Mixed-use development of 40,759 s.f. of non-medical office and 27 residential dwelling units, totaling to approx. 34,972 s.f.
			Total residential units:	3,880	dwelling units	

Sources: City of Menlo Park, 2021; BAE, 2021.

APPENDIX B: OVERVIEW OF IMPLAN

This appendix provides additional clarification of the workings of the IMPLAN input-output model. It provides a step-by-step account of how IMPLAN estimates economic impacts, using new residential development as an illustrative example. This section begins with an overview of the data that IMPLAN uses internally and moves forward through the process of how the model estimates the impacts of new commercial and housing projects.

What is IMPLAN?

IMPLAN is an input-output model that estimates the total economic implications of new economic activity within a specified geography. The model uses national industry data and county-level economic data to generate a series of multipliers, which in turn estimate the total economic implications of economic activity.

At the heart of the model is a national input-output dollar flow table called the Social Accounting Matrix (SAM). Unlike other static input-output models, which just measure the purchasing relationships between industry and household sectors, SAM also measures the economic relationships between government, industry, and household sectors, allowing IMPLAN to model transfer payments such as unemployment insurance. Thus, for the specified region, the input-output table accounts for all the dollar flows between the different sectors within the economy.

National Industry Data. The model uses national production functions for 546 sectors to determine how an industry spends its operating receipts to produce its commodities. The model also uses a national matrix to determine the *byproducts*[3] that each industry generates. To analyze the impacts of household spending, the model treats households as an "industry" to determining their expenditure patterns. IMPLAN couples the national production functions with a variety of county-level economic data to determine the impacts for our example.

County-Level Economic Data. In order to estimate the county-level impacts, IMPLAN combines national industry production functions with county-level economic data. IMPLAN collects data from a variety of economic data sources to generate average output, employment, and productivity for each of the industries in a given county. It also collects data on average prices for all of the goods sold in the local economy. In this analysis, IMPLAN uses economic data for a two-county region consisting of Santa Clara and San Mateo Counties. IMPLAN gathers data on the types and amount of output that each industry generates within the region. In addition, the IMPLAN model uses county-level data on the prices of goods and household expenditures

[3] The byproducts refer to any secondary commodities that the industry creates.

to determine the consumption functions of regional households and local government, taking into account the availability of each commodity within the specified geography.

Multipliers. IMPLAN combines these data to generate a series of SAM-type multipliers for the local economy. The multiplier measures the amount of total economic activity that results from an industry (or household) spending an additional dollar in the local economy. Based on these multipliers, IMPLAN generates a series of tables to show the economic event's *direct*, *indirect*, and *induced* impacts to gross receipts, or output, within each of the model's 546 sectors. These outputs have been described above, and also are described here:

- Direct Impacts. Direct impacts refer to the dollar value of economic activity available to circulate through the economy and the jobs associated with that economic activity. In the case of new residential development, the direct impacts are equal to the new households' discretionary spending. The direct impacts do not include household savings and payments to federal, state, and local taxes, as these payments do not circulate through the economy.

  It should be noted that impacts from retail expenditures differ significantly between the total economic value of retail and the amount available to circulate through the local economy. The nature of retail expenditures accounts for this difference. The model assumes that only the retail markup impacts the local economy, particularly for industries heavily populated with national firms such as gas stations and grocery stores. Since local stores buy goods from wholesalers and manufacturers outside of the area, and corporate profits also leave the local economy, only the retail markup will be available for distribution within the local economy. To the extent that retailers' headquarters are located within the county or region, the model allocates their portions of the impacts to the local economy.

- Indirect Impacts. The indirect impacts refer to the impact of local industries buying goods and services from other local industries, and to the jobs supported by those purchases. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy, either through imports or by payments to income and taxes. For capital projects this would include payments for construction inputs such as wood, steel, office supplies, and any other non-labor payments that a construction firm would purchase in the building process.

- Induced Impacts. The induced impacts refer to the dollar and employment impacts of household spending by the employees generated by the direct and indirect impacts. In other words, induced impacts result from the household spending of employees of business establishments that the new households patronize (direct) and their suppliers (indirect). The model accounts for local commute patterns in the geography. For example, if 20 percent of construction workers who work in the region live outside

of the region, the model will allocate 80 percent of labor's disposable income into the model to generate induced impacts. The model excludes payments to federal and state taxes and savings based on the geography's average local tax and savings rates. Thus, only the disposable incomes from local workers are included in the model.

Specifying the "Event" and Running the Model

Once the model is built for the specified geographies, it is time to specify the "event" that the model will analyze and run the model.

Specifying the "Event." The "event" refers to the total economic value of industry output that the analyst is considering. In the case of the ongoing economic impacts of a new institutional development such as a school, the "event" would be the operations of a school, including the resulting new jobs and the worker compensation.

Running the Model. Once the event is specified, IMPLAN runs the event through the model to generate the results. By default, IMPLAN applies the local data on average output per worker and compensation per worker to determine the direct impacts. For the analysis here, worker compensation was derived from earnings as shown in the PUMS analysis of a hypothetical mix of workers and their occupations. The model then applies the value of the event to the national production functions and runs a number of iterations of this value through the production functions for the local economy to determine the indirect and induced impacts. For each iteration, the model removes expenditures to government, savings, and for goods bought outside of the local economy so that the results only include those dollars that impact the local economy.

Summarizing the Impacts

Once the model is run, IMPLAN generates a series of output tables to show the direct, indirect, and induced impacts within each of the model's 546 sectors. IMPLAN generates these tables for three types of impacts: employment, output, and value added. The IMPLAN analysis of this study is focused on the employment impacts.

- *Employment* shows the number of employees needed to support the economic activity in the local economy. It should be noted that for annual impacts of ongoing operations, the employment figure shown represents the amount of employment needed to support that activity for a year. Furthermore, IMPLAN reports the number of jobs based on average output per employee for a given industry within the geography. This is not necessarily the same as the number of full-time positions.
- *Output* refers to the total economic value of the project in the local economy.
- *Value Added* shows the total income that the event generates in the local economy. This income includes:
    - *Employee Compensation* – total payroll costs, including benefits

- *Proprietary Income* – payments received by self-employed individuals as income
- *Other Property Type Income* – payments for rents, royalties, and dividends
- *Indirect Business Taxes* – excise taxes, property taxes, fees, and sales taxes paid by businesses. These taxes occur during the normal operation of businesses, but do not include taxes on profits or income.

APPENDIX C: INCOME ADJUSTMENTS FOR IMPLAN

	Rental Housing											
	Below Market Rate Units									Market Rate		
	Very Low Income			Low Income			Moderate Income					
Estimate of Total Personal Household Income	**Studio**	**1 BR**	**2 BR**	**Studio**	**1 BR**	**2 BR**	**Studio**	**1 BR**	**2 BR**	**Studio**	**1 BR**	**2 BR**
HH Income Level	$63,950	$68,525	$82,250	$102,320	$109,640	$131,600	$125,650	$134,625	$161,550	$119,120	$138,880	$181,480
HH Earnings as % of HH Income	89%	89%	89%	89%	89%	89%	0%	89%	89%	89%	89%	89%
HH Earnings Income	$56,752	$60,812	$72,992	$90,803	$97,299	$116,788	$0	$119,472	$143,367	$105,712	$123,248	$161,053
HH Non-earnings Money income	$7,198	$7,713	$9,258	$11,517	$12,341	$14,812	$125,650	$15,153	$18,183	$13,408	$15,632	$20,427
HH Non-money income as % of earnings/compensation	26%	26%	26%	26%	26%	26%	0%	26%	26%	26%	26%	26%
HH Non-Money income	$14,756	$15,811	$18,978	$23,609	$25,298	$30,365	$0	$31,063	$37,275	$27,485	$32,045	$41,874
Total HH Personal Income	$78,706	$84,336	$101,228	$125,929	$134,938	$161,965	$125,650	$165,688	$198,825	$146,605	$170,925	$223,354
Adjustments to IMPLAN Income Definition												
FICA Earnings per worker HH	$56,752	$60,812	$72,992	$90,803	$97,299	$116,788	$0	$119,472	$143,367	$105,712	$123,248	$161,053
Wokers per household	1	1.49	1.75	1	1.46	1.87	1	1.44	1.82	1	1.42	1.76
Average Earnings per worker	$56,752	$40,817	$41,624	$90,803	$66,462	$62,325	$0	$83,223	$78,622	$105,712	$87,046	$91,278
Social Security	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%
Medicare:	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
Total FICA	15.30%	15.30%	15.30%	15.30%	15.30%	15.30%	15.30%	15.30%	15.30%	15.30%	15.30%	15.30%
Social Security:	($7,037)	($5,061)	($5,161)	($11,260)	($8,241)	($7,728)	$0	($10,320)	($9,749)	($13,108)	($10,794)	($11,318)
Medicare:	($1,646)	($1,184)	($1,207)	($2,633)	($1,927)	($1,807)	$0	($2,413)	($2,280)	($3,066)	($2,524)	($2,647)
Adjusted per worker earnings	$48,069	$34,572	$35,256	$76,910	$56,293	$52,790	$0	$70,490	$66,593	$89,538	$73,728	$77,312
Adjusted total worker earnings	$48,069	$51,508	$61,824	$76,910	$82,413	$98,919	$0	$101,193	$121,432	$89,538	$104,391	$136,412
Total HH Adjustment	($8,683)	($9,304)	($11,168)	($13,893)	($14,887)	($17,869)	$0	($18,279)	($21,935)	($16,174)	($18,857)	($24,641)
Total Adjusted HH Personal Income	$70,022	$75,032	$90,060	$112,036	$120,051	$144,096	$125,650	$147,409	$176,890	$130,431	$152,068	$198,713
Number of Units	5	9	2	5	9	2	4	10	2	75	157	36
Aggregate Adjusted HH Personal Income	**$350,112**	**$675,287**	**$180,120**	**$560,180**	**$1,080,459**	**$288,193**	**$502,600**	**$1,474,085**	**$353,780**	**$9,782,342**	**$23,874,608**	**$7,153,658**

See sources on next page

Appendix C, Continued

	Owenrship Housing							
	BMR						Market Rate	
	Very Low Income		Low Income		Moderate Income			
Estimate of Total Personal Household Income	**2 BR**	**4 BR**	**2 BR**	**4 BR**	**2 BR**	**4 BR**	**2 BR**	**3 BR**
HH Income Level	$82,250	$106,000	$131,750	$169,800	$161,550	$208,200	$290,594	$355,781
HH Earnings as % of HH Income	89%	89%	89%	89%	89%	89%	89%	89%
HH Earnings Income	$72,992	$94,069	$116,921	$150,688	$143,367	$184,766	$257,886	$315,736
HH Non-earnings Money income	$9,258	$11,931	$14,829	$19,112	$18,183	$23,434	$32,708	$40,045
HH Non-money income as % of earnings/compensation	26%	26%	26%	26%	26%	26%	26%	26%
HH Non-Money income	$18,978	$24,458	$30,399	$39,179	$37,275	$48,039	$67,050	$82,091
Total HH Personal Income	$101,228	$130,458	$162,149	$208,979	$198,825	$256,239	$357,644	$437,872
Adjustments to IMPLAN Income Definition								
FICA Earnings per worker HH	$72,992	$94,069	$116,921	$150,688	$143,367	$184,766	$257,886	$315,736
Wokers per household	1.75	1.79	1.87	2.13	1.82	2.19	1.84	2.02
Average Earnings per worker	$41,624	$52,573	$62,397	$70,660	$78,622	$84,206	$140,310	$156,572
Social Security	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	
Medicare:	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
Total FICA	15.30%	15.30%	15.30%	15.30%	15.30%	15.30%	15.30%	15.30%
Social Security:	($5,161)	($6,519)	($7,737)	($8,762)	($9,749)	($10,442)	($17,398)	($17,707)
Medicare:	($1,207)	($1,525)	($1,809)	($2,049)	($2,280)	($2,442)	($4,069)	($4,541)
Adjusted per worker earnings	$35,256	$44,530	$52,850	$59,849	$66,593	$71,322	$118,843	$134,324
Adjusted total worker earnings	$61,824	$79,677	$99,032	$127,633	$121,432	$156,497	$218,429	$270,872
Total HH Adjustment	($11,168)	($14,393)	($17,889)	($23,055)	($21,935)	($28,269)	($39,457)	($44,863)
Total Adjusted HH Personal Income	$90,060	$116,065	$144,261	$185,924	$176,890	$227,970	$318,187	$393,008
Number of Units	2	4	2	4	2	4	34	64
Aggregate Adjusted HH Personal Income	**$180,120**	**$464,262**	**$288,521**	**$743,694**	**$353,780**	**$911,880**	**$10,818,369**	**$25,152,540**

Sources: US Bureau of Labor Statistics; HUD; CA Dept. of Housing and Community Development; US Census Bureau American Community Survey 2015-2019 Public Use Microdata Sample; BAE.

APPENDIX D: WORKER HOUSEHOLD INCOME LEVEL BY INDUSTRY AND HOUSEHOLD INCOME LIMITS

		Estimated Household Income as a Percent of AMI						
NAICS Code	Industry	Extremely Low	Very Low	Low	Moderate	Above Moderate	Above 150%	Total
Private Sector								
11, 21	Agriculture & Natural Resources	16.2%	24.2%	22.2%	10.7%	5.6%	21.2%	100.0%
23	Construction	11.6%	16.0%	24.8%	14.6%	10.6%	22.3%	100.0%
31-33	Manufacturing	4.0%	7.1%	14.5%	12.4%	12.6%	49.4%	100.0%
42	Wholesale Trade	5.6%	12.1%	18.3%	11.7%	13.6%	38.7%	100.0%
44-45	Retail Trade	10.4%	14.7%	24.5%	12.5%	10.0%	27.9%	100.0%
48-49, 22	Transportation, Warehousing, & Utilities	9.0%	16.4%	26.3%	14.0%	10.0%	24.3%	100.0%
51	Information	2.4%	3.3%	10.3%	8.3%	10.2%	65.4%	100.0%
52-53	Finance, Insurance, & Real Estate	4.4%	7.1%	14.9%	10.7%	12.5%	50.4%	100.0%
54-55	Professional, Scientific, & Technical Services, & Mgmt of Companies	2.7%	3.7%	9.6%	10.7%	12.4%	60.9%	100.0%
56	Admin, Support, & Waste Mgmt Srvcs	15.6%	19.3%	24.7%	12.4%	8.9%	19.1%	100.0%
61	Educational Services	6.2%	9.8%	19.3%	13.9%	13.0%	37.9%	100.0%
62	Health Care & Social Assistance	7.2%	10.1%	19.3%	13.3%	13.4%	36.7%	100.0%
71-72	Leisure & Hospitality	15.7%	17.4%	26.3%	12.3%	10.3%	18.1%	100.0%
81	Other Services Except Public Admin	15.0%	19.0%	22.1%	13.0%	9.6%	21.4%	100.0%
Public Sector		6.5%	8.4%	19.6%	15.5%	15.2%	34.7%	100.0%

Notes:
Based on a cross tabulation of Public Use Microdata Samples (PUMS) from the 2015-2019 American Community Survey. These incomes were compared to household income limits published by the State of CA Department of Housing and Community Development (HCD) to determine the percentage of households falling into each income category. The analysis controlled for household size, to address the varying HCD income limits for each household size.

Sources: Census, American Community Survey Public-Use Microdata Sample (PUMS) 2015-2019; HCD; BAE, 2021.

APPENDIX E: EMPLOYMENT GENERATION FACTORS

APARTMENT OPERATIONS METRICS INDIVIDUALLY METERED AND RECOVERY SYSTEM

MARKET-RENT GARDEN PROPERTIES

	Properties	Units	Revenue / Payroll	Net Operating Income/ Payroll	# Units/ Full-time Employees	# Units/ Total Employees	Payroll/ Revenue	Payroll/ Net Operating Income
Less Than 100 Units	133	10,019	$10.00	$5.90	35.3	29.5	10.0%	17.0%
100 to 199 Units	461	71,071	$9.55	$5.69	40.9	37.3	10.5%	17.6%
200 to 299 Units	771	190,363	$10.24	$6.22	44.5	42.6	9.8%	16.1%
300 to 399 Units	501	169,816	$10.81	$6.68	46.0	45.1	9.3%	15.0%
400 to 499 Units	189	83,457	$11.13	$7.00	47.8	46.7	9.0%	14.3%
500 or More Units	122	76,906	$11.67	$7.39	47.8	47.1	8.6%	13.5%
Total	**2,177**	**601,632**	**$10.59**	**$6.52**	**45.1**	**43.3**	**9.4%**	**15.3%**

Source: National Apartment Association 2021 Survey of Operating Income & Expenses in Rental Apartment Communities