



SPECIAL AND REGULAR MEETING AGENDA

Date: 7/19/2016
Time: 6:00 p.m.
City Council Chambers
701 Laurel St., Menlo Park, CA 94025

6:00 p.m. Closed Session (City Hall Administration Building, 1st floor conference room)

Public comment will be taken on this item prior to adjourning to Closed Session.

- CL1. Closed Session pursuant to Government Code Section §54957 to confer regarding employee performance evaluation: City Manager

7:00 p.m. Regular Session

A. Call To Order

B. Roll Call

C. Pledge of Allegiance

D. Report from Closed Session

E. Presentations and Proclamations

- E1. Proclamation and presentation regarding Parks and Recreation Month

F. Study Session

- F1. Study Session to review draft Nexus Studies for Below Market Rate Housing Impact Fees (Staff Report# 16-134-CC)

G. Public Comment

Under “Public Comment,” the public may address the City Council on any subject not listed on the agenda. Each speaker may address the City Council once under Public Comment for a limit of three minutes. Please clearly state your name and address or political jurisdiction in which you live. The City Council cannot act on items not listed on the agenda and, therefore, the City Council cannot respond to non-agenda issues brought up under Public Comment other than to provide general information.

H. Consent Calendar

- H1. Authorize the City Manager to enter into an agreement with IEC for the Emergency Wells 2 & 3 project (Staff Report# 16-125-CC)
- H2. Adopt a resolution authorizing the City Manager to execute a contract with the State of California

Department of Education to reimburse the City up to \$796,890 for child care services at the Belle Haven Child Development Center for fiscal year 2016-17 (Staff Report# 16-124-CC)

- H3. Authorize the City Manager to enter into a contract with Cardinal Rules in an amount not to exceed \$68,013.00 for youth and adult sports officials for fiscal year 2016-17 (Staff Report# 16-123-CC)
- H4. Adopt a resolution requesting action from the Federal Aviation Administration to reduce aircraft noise in Menlo Park (Staff Report# 16-131-CC)
- H5. Approve a resolution to amend the City-wide salary schedule effective July 10, 2016 (Staff Report# 16-132-CC)
- H6. Approve minutes for the City Council meetings of June 1, June 21 and July 12, 2016 (Attachment)

I. Regular Business

- I1. Provide direction on Facebook Campus Expansion Project and ConnectMenlo (General Plan and M-2 Area Zoning update) schedules (Staff Report# 16-133-CC)
- I2. Consider the Term Sheet for the Development Agreement for the Facebook Campus Expansion Project located at 301-309 Constitution Drive and authorize City Manager to modify Project Schedule and execute contracts with EIR consultants (Staff Report# 16-127-CC)
- I3. Appoint a City Council Subcommittee to assist with negotiation of a development agreement for the Station 1300 Project, and provide direction for the consideration of the subcommittee (Staff Report# 16-129-CC)

J. Informational Items

- J1. Update on proposed process to establish a new citywide crosswalk policy (Staff Report# 16-128-CC)
- J2. Update on Willow Road transportation improvement options (Staff Report# 16-130-CC)
- J3. Update on the Oak Grove Avenue, Crane Street and University Drive bicycle improvement project (Staff Report# 16-126-CC)

K. City Manager's Report

L. Councilmember Reports

- L1. Confirm voting delegate for the League of California Cities Annual Conference (Attachment)

M. Adjournment

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At every Regular Meeting of the City Council, in addition to the Public Comment period where the public shall have the right to address the City Council on any matters of public interest not listed on the agenda, members of the public have the right to directly address the City Council on any item listed on the agenda at a time designated by the Mayor, either before

or during the City Council's consideration of the item.

At every Special Meeting of the City Council, members of the public have the right to directly address the City Council on any item listed on the agenda at a time designated by the Mayor, either before or during consideration of the item.

Any writing that is distributed to a majority of the City Council by any person in connection with an agenda item is a public record (subject to any exemption under the Public Records Act) and is available for inspection at the City Clerk's Office, 701 Laurel St., Menlo Park, CA 94025 during regular business hours.

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STAFF REPORT

City Council

Meeting Date: 7/19/2016

Staff Report Number: 16-134-CC

Study Session: Study Session to review draft Nexus Studies for Below Market Rate Housing Impact Fees

Recommendation

Staff recommends that the City Council review and provide general feedback regarding the draft Commercial Linkage Fee Nexus Study and Residential Impact Fee Nexus Study, which have been prepared specifically for Menlo Park, based on the Grand Nexus Study that was prepared for San Mateo County through the 21 Elements planning project.

Policy Issues

The draft nexus studies support the City's existing Below Market Rate (BMR) Program, are consistent with the approved Housing Element, and approved City Council work plan.

Background

Current BMR Housing Program

The BMR Housing Program was established in 1987 to increase the housing supply for people who live and/or work in Menlo Park and have very low, low, or moderate incomes as defined by income limits set by San Mateo County. The primary objective of the program is to create actual housing units rather than generate a capital fund. Developers who build five or more housing units enter into BMR Agreements with the City concerning the BMR units' location, size and other details, including deed restrictions to preserve the BMR units' affordability.

Currently, for-sale residential developments of five or more units must comply with the City's inclusionary zoning requirements to include a percentage of BMR units along with their market-rate units. The City has the discretion to allow a developer to meet their BMR requirement through accepting an in-lieu fee. In-lieu fees are calculated as 3 percent of the sale price for the number of required BMR units. The BMR requirements are summarized in Table 1.

Table 1: Inclusionary Requirements	
# of Units	Required BMR Units
0-4	exempt
5-9	1 unit
10-19	10%
20 or more	15%

There is an important distinction to note between an impact fee, which is typically charged per unit or square foot of the total development, versus the in-lieu fee, which is based solely on the number of required BMR units. The Council will be asked to provide input on whether the City should establish an impact fee on new residential development, rather than simply allowing the payment of in-lieu fees for BMR units.

The BMR Housing Program also applies to new commercial developments of 10,000 square feet or more. The current in-lieu fees to mitigate the demand for affordable housing are \$16.15 per square foot of net new gross floor area for most commercial uses and \$8.76 per square foot of net new gross floor area for defined uses that generate fewer employees. Collected in-lieu fees are deposited into the BMR Housing Fund. The fee is adjusted annually on July 1.

The City partnered with other San Mateo County jurisdictions through the 21 Elements planning project to issue a Request for Proposal (RFP) for the preparation of affordable housing fee nexus and feasibility studies. The draft Commercial Linkage Fee Nexus Study (Attachment A) and Residential Impact Fee Nexus Study (Attachment B) are results of this partnership. Participation in this process helps the City comply with Housing Element program H4.D:

Update the BMR Fee Nexus Study. Coordinate the update of the BMR nexus fee study with other jurisdictions in San Mateo County as part of the Countywide 21 Elements project, which is a collaborative effort among all 21 jurisdictions in San Mateo County to provide assistance and collaborate on housing element implementation. Modify fees accordingly following the nexus study.

Nexus Studies

The City contracted with Strategic Economics to prepare two nexus studies specific to the City of Menlo Park, which build on the Grand Nexus Study that they prepared for 21 Elements. These nexus studies provide justification for adjusting some of the City’s existing BMR fees, establishing a fee to assist with mitigating the impacts of new rental residential projects and confirm that fees for some development types are within the recommended range.

Analysis

The methodology for establishing the recommended fee revisions is detailed within the nexus studies and will be explained as part of the presentation during the July 19th study session. The recommended fee revisions are summarized in Tables 2 and 3 by development type. The table of commercial fees compares the recommended fees to existing fees. The table of residential fees shows the recommended options of new per square foot or per unit fees.

Table 2: Commercial Fees		
Development Type	Existing Fee	Recommended Fee Range per SF
Hotel	\$8.76	\$10 - \$15
Retail/Restaurants/Services	\$8.76	\$5 - \$10
Office/Medical Office/R&D	\$16.15	\$25 - \$50

Table 3: Residential Fees			
Development Type	Recommended Fee per SF		Recommended Fee per Unit
Single-Family Detached	\$25 - \$50	-or-	\$75,000 - \$150,000
Single-Family Attached	\$25 - \$50	-or-	\$42,000 - \$85,000
Condominium	\$35 - \$50	-or-	\$45,000 - \$63,000
Apartments	\$25 - \$50	-or-	\$22,900 - \$45,800

Projects within the Development Pipeline

As with anytime a City establishes a new fee for development, it is important for the City Council to provide feedback and direction on what stage in the development process a project must complete to be considered grandfathered under the current fee schedule versus those which will be subject to the new fee schedule.

Policy Questions

At this time Staff is looking for feedback and general direction on a number of policy questions.

Threshold Question:

1. Does the City Council feel that our BMR program fee schedule needs to be revised?

If so, feedback on the following questions regarding commercial and residential development is critical to crafting revisions to the BMR Program.

Commercial Questions:

1. Is the Council comfortable with the different types of commercial development? Should the City continue with 2 different fees based the type of commercial development or should there be more as detailed in the nexus study?
2. What is the City Council’s general direction for revising the BMR fee schedule? Are the recommended fees ranges appropriate and where within the range does the Council feel comfortable setting various fees?
3. At what point in the development process should a development project be subject to the new fee schedule?

Residential Questions:

1. Should the City establish an impact fee for residential development? If so, is the Council comfortable with the recommended ranges for different types of residential units?
2. Does the Council prefer a fee structure that is per unit or per square foot?

Next Steps

1. Following the Study Session, staff will work with the consultant to develop recommendations for Council action and any necessary revisions to the City’s current BMR program.
2. Menlo Park is affected by the regionally record-high demand for housing that is driving-up home prices and rents. While not the subject of this memo, staff intends to work with the City Council to

schedule a study session in the coming months to address the concerns expressed the Council related to the existing challenges with housing affordability.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

Attachment A: Commercial Linkage Fee Nexus Study

Attachment B: Residential Impact Fee Nexus Study

Report prepared by:

Jim Cogan, Housing and Economic Development Manager

Draft Report
Commercial Linkage Fee
Nexus Study

July 2016

prepared for:
City of Menlo Park



VWA

Vernazza Wolfe Associates, Inc.

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I. EXECUTIVE SUMMARY

INTRODUCTION

This report is part of the 21 Elements multi-city nexus study, a collaborative effort to mitigate the impacts of new development on the demand for affordable housing in San Mateo County. In February 2014, the local jurisdictions of San Mateo County hired Strategic Economics and Vernazza Wolfe Associates, Inc. to develop nexus studies for commercial linkage fees and housing impact fees.¹ The project was initiated by 21 Elements, a countywide collaboration among all the cities in San Mateo County on housing issues. Some jurisdictions elected to conduct both fee studies, while others did not. The preparation of these fee studies may result in the adoption of new impact fees on either residential, commercial or both types of developments. This draft report describes the methodology, data sources, and analytical steps required for the nexus analysis.

BACKGROUND

The City of Menlo Park is considering updating its existing commercial linkage fee that is charged on new non-residential development. The purpose of the linkage fee is to mitigate the impacts of an increase in affordable housing demand from new worker households associated with new commercial development. When a city or county adopts impact fees on new development, it must establish a reasonable relationship or connection between the development project and the fee that is charged. Studies undertaken to demonstrate this connection are called nexus studies. This linkage fee nexus study quantifies the connection between the development of commercial hotel, retail/restaurants/services, and office/R&D/medical office projects and the demand for affordable housing units. The funds raised by the linkage fees are deposited into a housing fund specifically reserved for use by a local jurisdiction to increase the supply of affordable housing for the workforce. Commercial linkage fees are one of several funding sources that jurisdictions can use to help meet the affordable housing needs of new workers.

REPORT ORGANIZATION

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

¹ Participating jurisdictions include: Atherton, Belmont, Brisbane, Burlingame, Colma, Daly City, East Palo Alto, Foster City, Half Moon Bay, Hillsborough, Menlo Park, Millbrae, Pacifica, Portola Valley, Redwood City, San Bruno, San Carlos, San Mateo City, San Mateo County, South San Francisco, and Woodside.

IMPLEMENTATION OPTIONS

The per-square-foot maximum linkage fees are \$154 for the hotel prototype, \$265 for the restaurant/retail/services prototype, and \$255 for the office/medical office/R&D prototype. If Menlo Park elects to update its linkage fees on commercial development, the recommended fee levels are as follows: \$10 to \$15 per square foot for hotels; \$5 to \$10 per square foot for retail/restaurants/services; and between \$25 and \$50 per square foot for office/R&D/medical office. These recommendations are based on the findings of the financial feasibility analysis, a comparison of fees in neighboring jurisdictions, and other factors as explained in the Policy Considerations section, below. The maximum and recommended fee ranges for each prototype are shown in Figure I-1.

Figure I-1. Maximum and Recommended Fee Levels by Prototype

Prototype	Maximum Justified Fee	Recommended Linkage Fee
Hotel	\$154	\$10 - \$15
Retail/ Restaurants / Services	\$265	\$5 - \$10
Office/ Medical Office/ R&D	\$255	\$25 - \$50

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

NEXUS ANALYSIS RESULTS

The principal findings of the nexus analysis are presented below. More detail on each step can be found in other sections of this report.

Prototypes

The first step in this nexus analysis is to establish prototypes of typical commercial development in Menlo Park. These typical developments are called prototypes. This study examined the jobs-housing linkage for three commercial development prototypes:

1. Hotel - includes full-service hotels, limited-service hotels, motels, and other lodging.
2. Retail/ Restaurants/ Services - includes a range of buildings, including retail stores, restaurants, and personal care spaces accommodating businesses like nail salons and drycleaners.
3. Office/ R&D/ Medical Office - includes a range of office and research and development (R&D) uses, including traditional office buildings, medical offices, and specialized spaces for highly advanced manufacturing and research.

The definition of the commercial prototypes was informed by a review of recently completed and proposed development projects in San Mateo County, as well as discussions with City staff. The prototype information is summarized in Figure I-2.

Figure I-2. Commercial Prototypes

	Hotel	Retail/ Restaurants/ Services	Office/R&D/ Medical Office
Prototype Description			
Gross Building Area (GBA)	100,000	100,000	100,000
Podium Parking Area	11,970	30,000	63,000
Gross Building Area including Podium Parking (SF)	111,970	130,000	163,000
Efficiency Ratio (a)	N/A	0.95	0.9
Net Leasable Sq. Ft. (NSF)	N/A	95,000	90,000
Hotel Rooms	133		
Parking Spaces	160	400	300
Podium Parking	40	100	210
Surface Parking	120	300	90
Floor Area Ratio (b)	1.1	0.5	2.0
Land Area (Acres)	2.3	6.0	1.9
Land Area (SF)	101,791	260,000	81,500

Notes:

(a) Refers to ratio of gross building area to net leasable area. An efficiency ratio of 0.9 means that 90% of the gross building area is leasable.

(b) The floor-area-ratio (FAR) is often used as a measure of density. In this analysis, it is calculated as the gross building area (including podium parking) divided by the total land area.

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

Employment Density

The next step is to determine how many employees will work in each of the three prototypes. While these numbers will vary from building to building, there are sources of information that help researchers define employment “densities.” The employment density measures the number of employees who work in a given amount of space. For each building prototype, an average employment density was defined based on a review of national survey data for existing commercial buildings and a review of recently completed linkage fee nexus studies in the Bay Area. The densities selected were at the lower end of each range. By using slightly lower employment estimates, the conclusions from this study are more conservative. The study uses a slightly lower number of future employees in calculating affordable housing needs.

Worker Household Incomes

Using these prototypes, the nexus analysis estimates the wages of future workers based on industry and occupation data. After the average wage of workers is calculated, the next step is to compute the average household income of worker households. Assuming that there are multiple wage-earners per household, the household income of worker households is estimated. Each worker-household is then classified into area median income (AMI) categories to determine the number of households that would require affordable housing. Figure I-3 summarizes the estimated worker-household incomes for each prototype.

Figure I-3. Calculation of Worker Household Income by Prototype

Prototype	Number of Employee Households
Hotel	
Very Low Income (<=50% AMI)	22.8
Low Income (51-80% AMI)	35.2
Moderate Income (81-120% AMI)	3.2
Above Moderate (>=120%)	4.2
Total	65.4
Retail, Restaurants and Personal Services	
Very Low Income (<=50% AMI)	84.4
Low Income (51-80% AMI)	10.0
Moderate Income (81-120% AMI)	2.3
Above Moderate (>=120%)	1.4
Total	98.0
Office, R&D and Medical Office Land Use	
Very Low Income (<=50% AMI)	34.7
Low Income (51-80% AMI)	52.0
Moderate Income (81-120% AMI)	18.7
Above Moderate (>=120%)	90.7
Total	196.1

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

Affordability Gap

Many of the new worker households will be unable to afford market-rate housing. In order to measure this shortfall, this study has calculated the housing affordability gap, shown in Figure I-4. The housing affordability gap measures the difference between what very low, low, and moderate income households can afford to pay for housing and the cost of building new, modest rental and for-sale housing units.

Figure I-4. Affordable Housing Gap

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

Notes:

(a) Low income households are defined at 70 percent of AMI for renters and 80 percent of AMI for owners.

(b) Moderate income households are defined at 90 percent of AMI for renters and 110 percent AMI for owners.

Acronyms: AMI: Area median income.

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

Maximum Nexus-Based Fee

To calculate the maximum commercial impact fee, the Consultant Team began by calculating the total affordability gap by prototype, which is obtained by multiplying the average affordability gap at each income level by the number of very low, low and moderate income households for each prototype. The total affordability gap by prototype is then divided by the size of the prototype to obtain the maximum nexus-based fee per square foot (Figure I-5).

The maximum per-square-foot linkage fees are \$154 for hotel, \$265 for retail/restaurants/services, and \$255 for office/R&D/medical office. The maximum fees are not the recommended fees for

adoption. They are the nexus-justified fees that represent the maximum that the City of Menlo Park could charge to mitigate affordable housing demand related to commercial development.

Figure I-5. Maximum Linkage Fees by Prototype

Prototype	Hotel	Retail/ Restaurants/ Personal Services	Office/ R&D/ Medical Office
Square Footage	100,000	100,000	100,000
Total Affordability Gap	\$15,411,161	\$26,497,820	\$25,538,453
Maximum Fee per SF	\$154	\$265	\$255

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

POLICY CONSIDERATIONS

There are a number of policy considerations that should be taken into account when the City of Menlo Park considers whether to update its commercial linkage fees on new non-residential development. These may include factors such as: the likely financial impact of the proposed linkage fees on development; the additional cost of the new fees on the existing City fee structure; a comparison of the fee scenarios to existing linkage fees in nearby cities; the role of the fee in the City’s overall strategy for affordable housing implementation; and the potential overlap with a residential impact fee, if it is adopted. This section provides a discussion of each of these policy questions for the City of Menlo Park.

Comparison to Neighboring Jurisdictions – A comparison of the nexus fee scenarios to current commercial linkage fees charged in nearby cities is an important element of the policy analysis (Figure I-6). At present, Menlo Park has fees of \$8.76 per square foot for hotel and retail/restaurants/personal services, and a fee of \$16.15 per square foot for office/R&D/medical office development. Menlo Park’s existing fees are similar to the linkage fees adopted in Sunnyvale, San Francisco and Cupertino, which range from \$7.50 to \$24 per square foot, depending on the land use. Similar to Menlo Park, most cities have adopted higher fee levels for office/ R&D/ medical office uses than for retail and hotel uses. For example, in Cupertino, the commercial linkage fee for hotel and retail/ restaurants/ services is \$10 per square foot, compared to \$20 per square foot for office/ R&D/ medical office uses. Menlo Park’s maximum linkage fees, ranging from \$154 to \$265 per square foot, are significantly higher than the existing linkage fees in Bay Area jurisdictions. However, adopting the recommended fee scenarios would place Menlo Park at a somewhat comparable fee level to several neighboring jurisdictions.

- For the hotel prototype, adopting a fee of between \$5 and \$15 per square foot would be comparable to Sunnyvale and Cupertino, but lower than Palo Alto and San Francisco’s fees.
- For the retail/restaurants/services prototype, adopting a fee between \$5 and \$10 per square foot would be fairly similar to the current linkage fee level, and comparable with Sunnyvale’s fee of \$7.50 per square foot and Cupertino’s fee of \$10 per square foot.
- For the office/R&D/medical office prototype, adopting a fee between \$25 and \$50 per square foot would be comparable to Mountain View and San Francisco.

Figure I-6. Comparison of Commercial Linkage Fees in Other Jurisdictions

Jurisdiction	Hotel	Retail/ Restaurant/ Services	Office/R&D/ Medical Office	Date Fee Was Adopted
Menlo Park (a)	\$8.76	\$8.76	\$16.15	2000
Cupertino	\$10	\$10	\$20	2015
Mountain View (b)	\$2.50	\$2.50	\$25	2015
Palo Alto	\$19.31	\$19.31	\$19.31	2002
San Francisco (c)	\$18	\$22	\$16-\$24	2015
Sunnyvale (d)	\$7.50	\$7.50	\$15	2015

Notes:

(a) Churches, schools, public facilities, and commercial buildings of 10,000 SF and under are exempt from fees.

(b) New gross floor area under 25,000 SF pays 50 percent of full fee.

(c) The fee for R&D is \$16.01 and the fee for office is \$24.03. The fee for a small enterprise is \$18.89.

(d) The fee on the first 25,000 SF, for all three commercial uses, is discounted by 50 percent.

Sources: City staff and websites; Nonprofit Housing Association of Northern California, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Financial Feasibility – Financial feasibility is just one of several factors to consider in making a decision regarding updating an existing fee. In order to provide the City of Menlo Park with guidance on how different fee levels could influence development, the Consultant Team conducted a pro forma feasibility analysis that tested the impact of the maximum fee and three reduced fee scenarios on developer profit for all the commercial prototypes. The analysis showed that establishing a fee at the maximum fee levels was not financially feasible at this time for any of the prototypes. However, reduced fee scenarios are financially feasible for the hotel and office/ R&D/ medical office prototypes (Figure I-7). The hotel prototype can support a commercial linkage fee of between \$10 and \$15 per square foot. Fee levels between \$25 and \$50 per square foot were found to be financially feasible for the office/ R&D/ medical office prototype.

For the retail/ restaurants/ services prototype, none of the fee scenarios tested was deemed financially feasible under today’s market conditions. However, it is possible that the prototype could be feasible if land, construction, or soft costs were slightly lower. The ground-floor retail component of a mixed-use project would also have stronger financial feasibility results, because it would share land costs with the residential or office component.

Figure I-7. Comparison of Existing, Maximum and Feasible Fee Levels by Prototype

Prototype	Existing Linkage Fee per SF	Maximum Justified Fee per SF	Feasible Fee Levels per SF
Hotel	\$8.76	\$154	\$10 - \$15
Restaurants/Retail/Services	\$8.76	\$265	\$5 - \$10
Office/Medical Office/R&D	\$16.15	\$255	\$25 - \$50

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

Total Development Costs – Currently, the total development costs (including land, building and onsite improvements, parking, indirect costs, financing costs, and developer profit, but excluding the current linkage fee) are \$407 per net square foot for the hotel prototype, \$573 per net square foot for the retail/restaurants/services prototype and \$473 per net square foot for the office/ R&D/ medical office prototype. The maximum nexus-based linkage fee represents approximately 27 percent of total development costs for the hotel prototype, almost 32 percent of total development costs for the retail/ restaurants/ services prototype, and 35 percent of total development costs for the office/ R&D/ medical office prototype (Figure I-8). The existing linkage fees of \$8.76 and \$16.15 per square foot makes up

between 1.5 and three percent of development costs for the prototypes. A fee of \$15 per square foot for the hotel prototype, which is at the higher end of the recommended fee range, represents four percent of total development costs. A fee of \$50 per square foot for the office/R&D/medical office prototype, which is the higher end of the recommended fee range, would represent 9.6 percent of total development costs. A fee of \$10 per square foot for retail/restaurants/services, which is at the high end of the recommended fee range, is equivalent to 1.7 percent of total development costs, which is a modest cost factor for this prototype.

Comparison to Existing City Fees – In addition to the existing commercial linkage fee, the City of Menlo Park has other permits and fees on new development. The City may wish to consider the amount that total fees would increase with an updated commercial linkage fee. Existing permits and fees in Menlo Park for the commercial prototypes (including the existing linkage fees of \$8.76 per square foot for hotel and restaurant/retail/personal services development and \$16.15 per square foot for office/R&D/medical office) are estimated to be \$18 per square foot for the hotel prototype, \$20 per square foot for the retail/ restaurants/ services prototype, and \$26 per square foot for the office/ R&D/ medical office prototype.² If the maximum linkage fees were adopted, the total development fees and permits would be \$172 per square foot for hotel, \$285 per square foot for retail, and \$281 for office, as shown in Figure I-9. Fee scenarios of \$15 per square foot for hotels and \$10 per square foot for retail/restaurants/services would increase total fees to \$32 and \$30 per square foot, respectively. A fee of \$25 per square foot for office/R&D/medical office would increase total fees to \$50 per square foot.

Role of Fee in Menlo Park’s Overall Housing Strategy – Menlo Park currently charges a commercial linkage fee of \$16.15 per square foot on office/R&D development and \$8.76 per square foot on all other non-residential development. Churches, schools, public facilities, and projects under 10,000 square feet are exempt. These fees are payable at the time that the building permit is issued. Fee revenues are used to provide financial assistance for affordable housing developments and preservation. The City also has an inclusionary housing program for for-sale residential development. The program requires that 10 percent of the units in market-rate developments of five to 20 housing units must be sold at affordable sales prices. For projects over 20 units, 15 percent of units must be sold at affordable prices. In some cases, developers have the option of paying an in-lieu fee. Revenues from the updated commercial linkage fees (and from residential impact fees, if they are adopted) would continue to support the City’s existing affordable housing programs. It should be noted that revenues from a commercial linkage fee need to be spent on housing that benefits the workforce since the funds stem from affordable housing impacts related to new employment.

Overlap with Residential Impact Fees - In addition to the commercial linkage fee update described in this report, the City of Menlo Park is also considering implementing new residential impact fees on housing development. There may be a small share of jobs counted in the residential nexus analysis that are also included in this commercial linkage fee analysis. Thus, the two programs may have some overlap in mitigating the affordable housing demand from the same worker households. In order to reduce the potential for overlap between the two programs, it is advisable to set both the commercial linkage fees and housing impact fees at below 100 percent of the nexus-based maximum. In this way, when combined, the programs would mitigate less than 100 percent of the impact even if there were overlap in the jobs counted in the two nexus analyses.

² These fee estimates are the best approximations available, and do not represent the actual cost of a proposed new development project.

Figure I-8. Commercial Linkage Fee Scenarios as Percent of Total Development Costs

Fee Scenario	Hotel		Retail/Restaurants/Services		Office/R&D/Medical Office	
	Fee Amount	Fee as % of TDC	Fee Amount	Fee as % of TDC	Fee Amount	Fee as % of TDC
Existing Linkage Fee	\$8.76	2.11%	\$8.76	1.51%	\$16.15	3.30%
Scenario 1: Max Fee	\$154	27.48%	\$265	31.61%	\$255	35.06%
Scenario 2	\$15	3.56%	\$15	2.55%	\$50	9.56%
Scenario 3	\$10	2.40%	\$10	1.71%	\$35	6.89%
Scenario 4	\$5	1.21%	\$5	0.86%	\$25	5.02%

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

Figure I-9. Total Fees and Permits per Square Foot

Fee Scenario	Hotel		Retail/Restaurants/Services		Office/R&D/Medical Office	
	Linkage Fee per SF	Total Permits and Fees	Linkage Fee per SF	Total Permits and Fees	Linkage Fee per SF	Total Permits and Fees
Existing Permits and Fees	\$9	\$18	\$9	\$20	\$16	\$26
Scenario 1 (Maximum Fee)	\$154	\$163	\$265	\$277	\$255	\$265
Scenario 2	\$15	\$24	\$15	\$27	\$50	\$60
Scenario 3	\$10	\$19	\$10	\$22	\$35	\$45
Scenario 4	\$5	\$14	\$5	\$17	\$25	\$35

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

II. INTRODUCTION AND METHODOLOGY

A commercial linkage fee is an impact fee that is charged on new, commercial development to address the affordable housing demand from new workers. The City of Menlo Park currently has a commercial linkage fee of \$8.76 per square foot on new hotel and restaurant/retail/personal services development, and of \$16.15 per square foot on new office/R&D/medical office development. The purpose of this study is to provide a new nexus analysis in the event that Menlo Park decides to adopt an updated commercial linkage fee. The funds raised by the linkage fees are deposited into a housing fund specifically reserved for use by a local jurisdiction to increase the supply of affordable housing for the workforce. Linkage fees are one of several funding sources that jurisdictions can use to help meet the affordable housing needs of new workers. For more than thirty years, California cities and counties have imposed commercial linkage fees on new, non-residential developments.

THE NEXUS CONCEPT

In order to adopt a commercial linkage fee, a nexus study is required to determine the reasonable relationship between the fee's use and the impact of the development project on which the fee is imposed. This commercial linkage fee nexus study establishes and quantifies the linkages or “nexus” between new commercial development and the need for additional housing affordable to new workers. Some of the new workers will have household incomes that qualify them for income-restricted affordable housing. This study quantifies the demand for very low income, low income, and moderate income housing that is created by new development of commercial buildings.

METHODOLOGY

When a city or county adopts a development impact fee, it must establish a reasonable relationship between the development project and the fee being charged. Studies undertaken to demonstrate this connection are called nexus studies. Nexus studies for school impact fees, traffic mitigation fees, and parks are common. For commercial linkage fees, a methodology exists that establishes a connection between the development of commercial space and the need to expand the supply of affordable housing. This study is based on this established methodology.

The purpose of a commercial linkage fee nexus analysis is to quantify the increase in demand for affordable housing that accompanies new non-residential development. There will be a net gain in employment when new commercial space is built. The ability of new workers to pay for housing costs is linked to their occupations (and hence salaries). Given anticipated incomes, there may be an affordability "gap" between what worker households can afford to pay (to rent or to buy) and the actual costs of new housing.

A nexus analysis calculates the relationship between new commercial development and household incomes of employees and then determines the employees' need for affordable housing. These steps provide the rationale for calculating the maximum justified commercial linkage fee that could be levied on non-residential development. These steps are presented in more detail below, and the subsequent sections of this report present the results of each of these steps.

Step 1. Define the commercial prototypes that represent new commercial development in Menlo Park.

The prototypes are defined based on recently completed and proposed development projects in Menlo Park. The purpose of defining prototypes is to estimate future employment linked to the new commercial space. Three prototypes were selected and include Hotels (133 rooms or 100,000 SF), Retail/ Restaurants/ Services (100,000 SF), and Office/ R&D/ Medical Office (100,000 SF). The prototype definitions include information on gross and leasable area, number of rooms (for hotel only), parking, and floor-area-ratio.

Step 2. Estimate the number of workers that will work in the new commercial space.

Based on a national survey data on employment density for commercial land uses, as well as recently completed linkage fee nexus studies in the Bay Area, the estimated employment density in hotels is approximately 0.75 workers per room (average room size of 750 SF), one worker per 667 SF for retail/restaurants/ services, and one worker per 333 SF for office/ R&D/ medical office. By dividing the square footage of the prototype developments by the employment density figures, the number of workers for each prototype is estimated.

Step 3. Estimate the number of new households represented by these new workers.

Since there are multiple wage earners in a household, the number of new workers will be higher than the number of new households moving into Menlo Park. Therefore, it is necessary to go from projected growth in the number of workers to household growth. This adjustment is based on the average number of wage-earners per worker household for Menlo Park (1.53) according to the U.S. Census Bureau American Community Survey 3-Year Estimates, 2010-2012.

Step 4. Estimate wages of new workers.

The first step in calculating employee wages is to establish a list of the industries that can be associated with each prototype. Using industry data from QCEW, industries (defined by NAICS Codes) were identified that are associated with each prototype, or land use. The next step is to identify all the occupations that are associated with each industry based on data provided by the U.S. Bureau of Labor Statistics (BLS). The national BLS occupational matrix is then calibrated to match the county's employment mix by weighting the national employment distribution to reflect the distribution of employment by industry within San Mateo County. Finally, the average wage by worker is calculated using data on average annual wages by occupation in the San Francisco-Redwood City-San Mateo Metro Division from the California Employment Development Department.

Step 5. Estimate household income of worker households.

Worker wage estimates from the previous step are then converted to household incomes. This step assumes that the income of the second wage-earner is similar to the wage of the first wage-earner. According to the U.S. Census Bureau American Community Survey 3-Year Estimates, 2010-2012, there are 1.53 wage-earners per worker household in the City of Menlo Park. Individual worker wages are multiplied by 1.53 to represent household incomes.

Step 6. Calculate the number of households that would be eligible for affordable housing divided into three categories: very low, low, and moderate income.

The average household size in the City of Menlo Park is estimated to be 2.5, based on the US Census, American Community Survey 5-Year Estimates, 2008-2012. Thus, the income groups are defined for a household size of three persons based on the income categories established by California Department of Housing and Community Development (HCD) for San Mateo County. Households with above-moderate income are removed to determine the number that would require below market rate affordable housing.

Step 7. Estimate the affordability gap of new households requiring affordable housing.

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

Step 8. Estimate the total housing affordability gap of new households requiring affordable housing.

The total number of very low, low, and moderate income new worker households for each land use prototype is multiplied by the corresponding affordable housing gap figure.

Step 9. Calculate maximum commercial linkage fees for each prototype.

The total affordability gap is then divided by 100,000 SF, the size of each commercial prototype to generate a maximum fee per square foot.

III. COMMERCIAL LINKAGE FEE NEXUS ANALYSIS

This section discusses each step of the commercial linkage analysis calculations and the maximum nexus-based fees. The analysis presented in this section should be interpreted within the context of the previous sections establishing the overall methodology for this study.

NEXUS ANALYSIS STEPS

Using the methodology described in Section II, the following describes each of the steps to calculate the linkage fees in more detail.

Commercial Prototypes

This study examined the jobs-housing linkage for three commercial development prototypes, which are described below.

1. Hotel – This building prototype includes full-service hotels, limited-service hotels, motels, and other lodging.
2. Retail/ Restaurants/ Services – This building prototype includes a broad range of buildings, including retail stores, restaurants, and personal care spaces accommodating businesses like nail salons and drycleaners.
3. Office/ R&D/ Medical Office – This category includes a wide range of office and R&D users, including traditional office buildings, open floor-plan offices, medical offices, and specialized spaces for highly advanced manufacturing and research commonly found in San Mateo County.

The prototypes defined above represent the types of new commercial buildings recently constructed or proposed in San Mateo County. Each prototype was assumed to be 100,000 square feet in size. The building size is not prescriptive; it is only averaged to illustrate the overall numbers of workers and households associated with new development projects. Many linkage fee nexus studies use the 100,000 square foot number because it can easily be converted into per-square-foot calculations. The per-square-foot linkage fee can be applied to a project of any size. For example, the small ground-floor retail component in a mixed-use building would be charged the same per-square-foot retail linkage fee as a large “big-box” project.

Figure III-1 below describes the building characteristics of each prototype, including factors like floor-area-ratios (FARs) and parking ratios, which were established based on a review of recent commercial development projects in the county.

Figure III-1. Description of Commercial Prototypes

Prototype Description	Hotel	Retail/ Restaurants/ Services	Office/R&D/ Medical Office
Gross Building Area (GBA)	100,000	100,000	100,000
Podium Parking Area	11,970	30,000	63,000
Gross Building Area including Podium Parking (SF)	111,970	130,000	163,000
Efficiency Ratio (a)	N/A	0.95	0.9
Net Leasable Sq. Ft. (NSF)	N/A	95,000	90,000
Hotel Rooms	133		
Parking Spaces	160	400	300
Podium Parking	40	100	210
Surface Parking	120	300	90
Floor Area Ratio (b)	1.1	0.5	2.0
Land Area (Acres)	2.3	6.0	1.9
Land Area (SF)	101,791	260,000	81,500

Notes:

(a) Refers to ratio of gross building area to net leasable area. An efficiency ratio of 0.9 means that 90% of the gross building area is leasable.

(b) The floor-area-ratio (FAR) is often used as a measure of density. In this analysis, it is calculated as the gross building area (including podium parking) divided by the total land area.

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

Average Employment Density and Number of Workers

For each building prototype, an average employment density was defined based on a review of national survey data for existing commercial buildings and a review of recently completed linkage fee nexus studies in the Bay Area. The densities selected were at the lower end of each range. While there is some anecdotal evidence that Silicon Valley technology firms occupy office space at higher densities than those selected in this study, these lower employment estimates are based on published data sources and surveys in order to ensure that the calculated nexus fees are more conservative. Furthermore, the office/R&D/medical office prototype includes a range of building types in addition to technology office space, including R&D buildings and medical offices, which typically have a large amount of building space dedicated to labs and clinics, thereby attaining low overall employment densities. Figure III-2 summarizes the building density data that formed the basis for establishing average employment density for each prototype.

Figure III-3 describes the density for each prototype, measured by the average number of square feet per worker for each prototype. This factor is multiplied by the size of the building (100,000 square feet) to calculate the total number of workers in each commercial prototype. The density factors represent the average density for the prototypes; individual projects and buildings may actually be more or less dense. The hotel prototype is assumed to be the lowest density followed by retail/ restaurant/ services and office/ R&D/ medical office. The density assumption generates the total number of direct workers occupying the commercial space in each prototype.

- Hotel – The hotel employment density assumption is 1,000 square feet per worker (or 0.75 workers per room). This density is at the mid-range of the densities shown in Figure III-2, and consistent with the Vallen and Vallen estimate for limited service mid-scale hotels, which are in between full-service “luxury” properties and economy properties. Given that many of the recently constructed and proposed hotel projects in San Mateo County are limited service mid-scale hotels, this density is aligned with market trends. For a 100,000-square-foot hotel (roughly equivalent to 133 rooms), this density assumption results in a total number of 100 workers.

- Retail/ Restaurants/ Services – The average density for retail/ restaurants/ services is estimated at 667 square feet of space per worker. This figure represents a lower density than the figures used in many other commercial linkage fee studies in the Bay Area, but a higher density than national data sources. Using this density, the number of workers in a 100,000 square foot prototype is estimated at 150.
- Office/ R&D/ Medical Office – The average density assumption for office/R&D/medical office is estimated at 333 square feet per worker. This density estimate is slightly lower than some recent linkage fee nexus studies, but higher than the national Energy Information Administration survey. The resulting number of total workers in this prototype is estimated at 300.

Figure III-2. Employment Density Data and Sources

Employee Density Figure	Source
Hotel	
1.5 workers per full-service (luxury) hotel room	Vallen and Vallen, "Chapter 1: The Traditional Hotel Industry," Check-In, Check-Out, 2012
0.5 to 1.0 workers per room for "in-between" hotels	Vallen and Vallen, "Chapter 1: The Traditional Hotel Industry," Check-In, Check-Out, 2012
As few as 0.25 workers per room for "budget" hotels	Vallen and Vallen, "Chapter 1: The Traditional Hotel Industry," Check-In, Check-Out, 2012
2,074 square feet per worker	Energy Information Administration, 2003 Commercial Buildings Energy Consumption Survey, Revised June 2006
720 square feet per worker	A.C. Nelson, "Reshaping Metropolitan America" (based on calculations from EIA survey)
450 square feet per worker	Jobs Housing Impact Fee Draft Nexus Study: City of Napa, CA, Vernazza Wolfe Associates Inc., 2011
2,000 square feet per worker	Housing Impact Fee Nexus Study: Mountain View, CA, KMA, 2012
Retail/ Restaurants/ Services	
528 -1,246 squares feet per worker in retail and services	Energy Information Administration, 2003 Commercial Buildings Energy Consumption Survey, Revised June 2006
605 square feet per worker	A.C. Nelson, "Reshaping Metropolitan America," 2013
300 square feet per worker	San Mateo County Housing Needs Study, Economic & Planning Systems, 2006
350 square feet per worker	Jobs Housing Impact Fee Draft Nexus Study: City of Napa, CA, Vernazza Wolfe Associates Inc., 2011
384.6 square feet per worker	Housing Impact Fee Nexus Study: Mountain View, CA, KMA, 2012
Office/ R&D/ Medical Office	
185-340 square feet per employee	Norm Miller, "Estimating Office Space per Worker: Implications for Future Office Space Demand," 2012
306 square feet per worker	Building Owners and Managers Association Survey, 2012
434 square feet per worker	Energy Information Administration, 2003 Commercial Buildings Energy Consumption Survey, Revised June 2006
300 square feet per worker	A.C. Nelson, "Reshaping Metropolitan America," 2013
250-350 square feet per worker	San Mateo County Housing Needs Study, Economic & Planning Systems, 2006
300 square feet per worker	Jobs Housing Impact Fee Draft Nexus Study: City of Napa, CA, Vernazza Wolfe Associates Inc., 2011
312.5 square feet per worker	Housing Impact Fee Nexus Study: Mountain View, CA, KMA, 2012

Figure III-3. Employment Density by Prototype

Commercial Prototype	Prototype Size (SF)	Average Density	Number of Workers in Prototype
Hotel	100,000 SF 133 rooms	1,000 SF per worker 0.75 workers per room	100 workers
Retail/ Restaurant/ Personal Services	100,000 SF	667 square feet per worker	150 workers
Office/ R&D/ Medical Office	100,000 SF	333 square feet per worker	300 workers

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

Number of Worker Households

Based on the total number of workers directly employed in the prototypes, the total number of worker households is estimated. The number of worker households is calculated by dividing the number of workers by the average number of wage-earners per household in Menlo Park. Based on data from the U.S. Census American Community Survey 3-Year Estimates, 2010-2012, there is an average of 1.53 workers per household in Menlo Park. The calculation of total new worker households is demonstrated in Figure III-4 below. The number of worker households associated with the prototypes is 65 for hotels, 98 for retail/restaurants/ services; and 196 for office/R&D/medical office.

Figure III-4. Number of Worker Households by Prototype

Commercial Prototype	Number of New Workers	Workers Per Household	Number of New Worker Households
Office/R&D/Medical Office	300	1.53	196
Retail/Restaurant/Personal Services	150	1.53	98
Hotel	100	1.53	65

Sources: US Census, American Community Survey 3-Year Estimates, 2010-2012; Vernazza Wolfe Associates, Inc.; Strategic Economics, 2015.

Calculate Worker Wages and Household Income

The first step in calculating employee wages is to establish a list of the industries that can be associated with each prototype. Using industry data from Quarterly Census of Employment and Wages (QCEW), industries (defined by NAICS Codes) were identified that are associated with each prototype, or land use. Figure III-5 below describes the industries that are associated with the hotel, retail/ restaurants/ services and office/ R&D/ medical office prototypes. The hotel category shown in Figure III-5 has only one industry attached to it, while the other land uses are associated with a larger number of industries. The industries associated with the retail/ restaurants/ services prototype are defined in Figure III-6. The office/R&D/ medical office industries are shown in Figure III-7.

Figure III-5. Definition of Industries for Hotel Prototype

NAICS Code	Description	Percent Total Workers in Prototype
721	Accommodation	100%
Total		100%

Note: Unlike other prototypes, the hotel prototype only includes one NAICS industry category.
Source: United States Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), 2013.

Figure III-6. Definition of Industries for Retail/ Restaurants/ Services Prototype

NAICS Code	Description	Percent Total Workers in Prototype
7225	Restaurants	34.1%
4451	Grocery stores	9.8%
4529	Other general merchandise stores	4.9%
8111	Automotive repair and maintenance	4.0%
4411	Automobile dealers	3.9%
4521	Department stores	3.6%
4441	Building material and supplies dealers	3.5%
8129	Other personal services	3.2%
4481	Clothing stores	3.1%
4461	Health and personal care stores	3.0%
8121	Personal care services	2.3%
5321	Automotive equipment rental and leasing	2.3%
8123	Dry-cleaning and laundry services	2.1%
4511	Sporting goods and musical instrument stores	1.8%
4431	Electronics and appliance stores	1.7%
4471	Gasoline stations	1.6%
4532	Office supplies, stationery, and gift stores	1.4%
4541	Electronic shopping and mail-order houses	1.2%
4421	Furniture stores	1.1%
4452	Specialty food stores	1.1%
4413	Auto parts, accessories, and tire stores	1.0%
4539	Other miscellaneous store retailers	1.0%
5322	Consumer goods rental	0.9%
4422	Home furnishings stores	0.7%
8122	Death care services	0.7%
5615	Travel arrangement and reservation services	0.5%
4237	Hardware and plumbing merchant wholesalers	0.5%
4512	Book, periodical, and music stores	0.4%
4482	Shoe stores	0.4%
4453	Beer, wine, and liquor stores	0.4%
7224	Drinking places, alcoholic beverages	0.4%
8113	Commercial machinery repair and maintenance	0.4%
4483	Jewelry, luggage, and leather goods stores	0.4%
4533	Used merchandise stores	0.4%
4231	Motor vehicle and parts merchant wholesalers	0.4%
4233	Lumber and const. supply merchant wholesalers	0.3%
5324	Machinery and equipment rental and leasing	0.3%
4442	Lawn and garden equipment and supplies stores	0.3%
8114	Household goods repair and maintenance	0.3%
4531	Florists	0.2%
5323	General rental centers	0.2%
4543	Direct selling establishments	0.2%
8112	Electronic equipment repair and maintenance	0.1%
4412	Other motor vehicle dealers	0.1%
4542	Vending machine operators	0.0%
Total		100%

Sources: United States Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), 2013; Vernazza Wolfe Associates, Inc.; Strategic Economics, 2015.

Figure III-7. Definition of Industries for Office/ R&D/ Medical Office Prototype

NAICS Code	Description	Percent Total Workers in Prototype
5415	Computer systems design and related services	12.0%
5417	Scientific research and development services	10.1%
5112	Software publishers	8.7%
5613	Employment services	6.3%
5416	Management and technical consulting services	4.6%
5191	Other information services	4.6%
5617	Services to buildings and dwellings	4.4%
523	Securities, commodity contracts, investments	3.9%
5511	Management of companies and enterprises	2.9%
6211	Offices of physicians	2.8%
6214	Outpatient care centers	2.7%
7223	Special food services	2.5%
5616	Investigation and security services	2.4%
6212	Offices of dentists	2.1%
5411	Legal services	2.1%
3341	Computer and peripheral equipment mfg.	2.1%
5222	Non-depository credit intermediation	2.0%
5412	Accounting and bookkeeping services	1.8%
5221	Depository credit intermediation	1.8%
5242	Insurance agencies and brokerages	1.7%
5182	Data processing, hosting and related services	1.6%
5413	Architectural and engineering services	1.5%
3345	Electronic instrument manufacturing	1.4%
5611	Office administrative services	1.2%
5313	Activities related to real estate	1.2%
517	Telecommunications	1.2%
5311	Lessors of real estate	1.0%
5419	Other professional and technical services	0.9%
5121	Motion picture and video industries	0.9%
5111	Newspaper, book, and directory publishers	0.8%
3344	Semiconductor and electronic component mfg.	0.8%
6213	Offices of other health practitioners	0.8%
5418	Advertising, pr, and related services	0.7%
3391	Medical equipment and supplies manufacturing	0.7%
6215	Medical and diagnostic laboratories	0.7%
5312	Offices of real estate agents and brokers	0.5%
5241	Insurance carriers	0.5%
5619	Other support services	0.4%
515	Broadcasting, except internet	0.4%
5614	Business support services	0.4%
5223	Activities related to credit intermediation	0.3%
3353	Electrical equipment manufacturing	0.2%
5414	Specialized design services	0.2%
3342	Communications equipment manufacturing	0.1%
5331	Lessors of nonfinancial intangible assets	0.0%
5612	Facilities support services	0.0%
5122	Sound recording industries	0.0%
5259	Other investment pools and funds	0.0%
Total		100%

Sources: United States Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW), 2013; Vernazza Wolfe Associates, Inc.; Strategic Economics, 2015

The next step is to identify all the occupations that are associated with each industry based on data provided by the U.S. Bureau of Labor Statistics (BLS). National level data on occupations are the best available; state level industry-occupation data exist but do not include all relevant industries. The national BLS occupational matrix is then calibrated to match the county’s employment mix by weighting the national employment distribution to reflect the distribution of employment by industry within San Mateo County. Finally, the average wage by worker is calculated using data on average annual wages by occupation in the San Francisco-Redwood City-San Mateo Metro Division (the smallest geographic level at which wage data are available) from the California Employment Development Department.

Figure III-8 below summarizes the results of these calculations, computing the average weighted wages³ for each prototype. As shown, the average wage is lowest for workers of retail/ restaurants/ services, since the occupations in these industries tend to have the lowest wages. Hotel workers have a slightly higher average wage than retail/restaurant/service workers. Office/R&D/medical office employees have the highest average wage of the three prototypes, due to a larger percentage of occupations in higher wage categories.

Figure III-8. Average Annual Wage by Prototype

Commercial Prototype	Weighted Average Annual Wage (a)
Hotel	\$39,935
Retail/ Restaurants/ Services	\$29,833
Office/ R&D /Medical Office	\$77,342

Notes:

(a) Average wages are weighted to take into account the proportion of jobs in each occupational wage category.

Sources: Bureau of Labor Statistics, Occupational Employment Statistics, 2013 and Quarterly Census of Employment and Wages (QCEW), 2013; California Economic Development Department, OES Employment and Wages by Occupation, 2013; Vernazza Wolfe Associates, Inc.; Strategic Economics, 2015.

The complete occupational mix, and wage data tables for each prototype are presented in Figure III-9, Figure III-10 and Figure III-11.

³ The weighted average wage takes into account the proportion of jobs in each occupational category.

Figure III-9. Occupational Mix and Average Wages for Hotel Industry

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Hotel Workers (c)
11-0000	Management Occupations		
11-9081	Lodging Managers	\$74,498	1.586%
11-1021	General and Operations Managers	\$150,628	0.964%
11-9051	Food Service Managers	\$63,767	0.487%
11-2022	Sales Managers	\$161,570	0.376%
11-3031	Financial Managers	\$169,227	0.201%
11-3011	Administrative Services Managers	\$110,659	0.165%
11-9199	Managers, All Other	\$141,691	0.125%
11-3121	Human Resources Managers	\$136,986	0.092%
11-1011	Chief Executives	\$207,735	0.064%
11-9141	Property, Real Estate, and Community Association Managers	\$85,117	0.056%
11-2021	Marketing Managers	\$175,141	0.054%
11-2011	Advertising and Promotions Managers	\$119,666	0.039%
11-3061	Purchasing Managers	\$146,940	0.026%
11-3021	Computer and Information Systems Managers	\$165,650	0.025%
11-2031	Public Relations and Fundraising Managers	\$133,651	0.008%
11-3111	Compensation and Benefits Managers	\$143,112	0.007%
11-9151	Social and Community Service Managers	\$78,548	0.006%
11-3131	Training and Development Managers	\$152,542	0.003%
11-9041	Architectural and Engineering Managers	\$168,643	0.003%
11-3071	Transportation, Storage, and Distribution Managers	\$119,656	0.003%
11-9021	Construction Managers	\$138,900	0.002%
	Weighted Average Annual Wage	\$112,338	4.293%
13-0000	Business and Financial Operations Occupations		
13-1121	Meeting, Convention, and Event Planners	\$63,284	0.475%
13-2011	Accountants and Auditors	\$86,991	0.457%
13-1071	Human Resources Specialists	\$80,583	0.197%
13-1199	Business Operations Specialists, All Other	\$94,719	0.094%
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	\$79,939	0.081%
13-1161	Market Research Analysts and Marketing Specialists	\$87,374	0.068%

Figure III-9. Occupational Mix and Average Wages for Hotel Industry, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Hotel Workers (c)
13-1151	Training and Development Specialists	\$82,770	0.027%
13-1141	Compensation, Benefits, and Job Analysis Specialists	\$81,621	0.018%
13-2051	Financial Analysts	\$124,663	0.017%
13-2099	Financial Specialists, All Other	\$118,407	0.012%
13-1041	Compliance Officers	\$87,616	0.012%
13-1131	Fundraisers	\$59,012	0.011%
13-1075	Labor Relations Specialists	\$83,656	0.009%
13-1111	Management Analysts	\$119,726	0.006%
13-1022	Wholesale and Retail Buyers, Except Farm Products	\$60,856	0.004%
13-2031	Budget Analysts	\$86,457	0.002%
13-2041	Credit Analysts	\$101,611	0.002%
	Weighted Average Annual Wage	\$79,133	1.493%
15-0000	Computer and Mathematical Occupations		
15-1151	Computer User Support Specialists	\$70,345	0.036%
15-1199	Computer Occupations, All Other	\$97,276	0.025%
15-1142	Network and Computer Systems Administrators	\$95,860	0.023%
15-1152	Computer Network Support Specialists	\$82,738	0.015%
15-1121	Computer Systems Analysts	\$104,935	0.009%
15-1134	Web Developers	\$91,692	0.005%
15-1141	Database Administrators	\$105,451	0.005%
15-1131	Computer Programmers	\$100,716	0.003%
15-1132	Software Developers, Applications	\$115,740	0.002%
	Weighted Average Annual Wage	\$88,477	0.124%
17-0000	Architecture and Engineering Occupations		
17-3023	Electrical and Electronics Engineering Technicians	\$68,604	0.004%
17-2051	Civil Engineers	\$108,648	0.003%
17-2141	Mechanical Engineers	\$100,372	0.003%
	Weighted Average Annual Wage	\$91,281	0.011%

Figure III-9. Occupational Mix and Average Wages for Hotel Industry, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Hotel Workers (c)
19-0000	Life, Physical, and Social Science Occupations	\$96,012	0.006%
	Weighted Average Annual Wage	\$96,012	0.006%
21-0000	Community and Social Service Occupations		
21-1099	Community and Social Service Specialists, All Other	\$53,338	0.003%
	Weighted Average Annual Wage	\$53,338	0.003%
23-0000	Legal Occupations		
23-1011	Lawyers	\$171,324	0.002%
23-2011	Paralegals and Legal Assistants	\$71,528	0.002%
	Weighted Average Annual Wage	\$128,554	0.004%
25-0000	Education, Training, and Library Occupations		
25-3021	Self-Enrichment Education Teachers	\$46,984	0.034%
25-3099	Teachers and Instructors, All Other, Except Substitute Teachers	\$69,029	0.004%
25-2011	Preschool Teachers, Except Special Education	\$37,039	0.003%
25-9031	Instructional Coordinators	\$71,751	0.002%
	Weighted Average Annual Wage	\$49,878	0.043%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations		
27-4011	Audio and Video Equipment Technicians	\$58,639	0.149%
27-2022	Coaches and Scouts	\$45,133	0.074%
27-3031	Public Relations Specialists	\$83,345	0.053%
27-3099	Media and Communication Workers, All Other	\$60,146	0.021%
27-4099	Media and Communication Equipment Workers, All Other	\$97,539	0.013%
27-1024	Graphic Designers	\$72,419	0.009%
27-1023	Floral Designers	\$36,644	0.008%
27-4014	Sound Engineering Technicians	\$49,190	0.008%
27-2012	Producers and Directors	\$95,971	0.002%

Figure III-9. Occupational Mix and Average Wages for Hotel Industry, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Hotel Workers (c)
27-1025	Interior Designers	\$76,587	0.002%
	Weighted Average Annual Wage	\$61,155	0.339%
29-0000	Healthcare Practitioners and Technical Occupations		
29-1141	Registered Nurses	\$129,166	0.006%
29-2041	Emergency Medical Technicians and Paramedics	\$57,354	0.006%
29-9011	Occupational Health and Safety Specialists	\$98,501	0.004%
	Weighted Average Annual Wage	\$95,944	0.016%
31-0000	Healthcare Support Occupations		
31-9011	Massage Therapists	\$45,586	0.425%
	Weighted Average Annual Wage	\$45,586	0.425%
33-0000	Protective Service Occupations		
33-9032	Security Guards	\$32,013	1.558%
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	\$29,746	0.392%
33-1099	First-Line Supervisors of Protective Service Workers, All Other	\$54,040	0.137%
33-9099	Protective Service Workers, All Other	\$56,801	0.062%
33-9021	Private Detectives and Investigators	\$86,255	0.003%
	Weighted Average Annual Wage	\$33,786	2.152%
35-0000	Food Preparation and Serving Related Occupations		
35-3031	Waiters and Waitresses	\$25,413	7.428%
35-2014	Cooks, Restaurant	\$29,161	3.335%
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	\$24,284	2.633%
35-3011	Bartenders	\$30,119	2.106%
35-3041	Food Servers, Nonrestaurant	\$33,434	1.813%
35-9021	Dishwashers	\$23,035	1.735%
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	\$40,256	1.268%
35-2021	Food Preparation Workers	\$23,942	1.015%
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$26,673	0.900%

Figure III-9. Occupational Mix and Average Wages for Hotel Industry, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Hotel Workers (c)
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	\$23,509	0.819%
35-1011	Chefs and Head Cooks	\$60,066	0.733%
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$23,710	0.541%
35-2012	Cooks, Institution and Cafeteria	\$38,049	0.322%
35-2015	Cooks, Short Order	\$29,030	0.314%
35-9099	Food Preparation and Serving Related Workers, All Other	\$32,386	0.276%
35-2019	Cooks, All Other	\$36,487	0.094%
35-2011	Cooks, Fast Food	\$25,514	0.086%
	Weighted Average Annual Wage	\$28,537	25.418%
37-0000	Building and Grounds Cleaning and Maintenance Occupations		
37-2012	Maids and Housekeeping Cleaners	\$35,419	24.068%
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$28,396	2.545%
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	\$50,352	1.736%
37-3011	Landscaping and Groundskeeping Workers	\$42,100	1.036%
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	\$62,696	0.117%
37-3019	Grounds Maintenance Workers, All Other	\$28,819	0.047%
	Weighted Average Annual Wage	\$36,023	29.549%
39-0000	Personal Care and Service Occupations		
39-3011	Gaming Dealers	\$20,999	2.029%
39-6011	Baggage Porters and Bellhops	\$31,257	1.334%
39-6012	Concierges	\$44,649	0.684%
39-3091	Amusement and Recreation Attendants	\$24,899	0.665%
39-1011	Gaming Supervisors	\$55,441	0.617%
39-9032	Recreation Workers	\$29,101	0.600%
39-1021	First-Line Supervisors of Personal Service Workers	\$49,758	0.232%
39-9099	Personal Care and Service Workers, All Other	\$37,948	0.210%
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	\$29,867	0.133%
39-3031	Ushers, Lobby Attendants, and Ticket Takers	\$27,761	0.087%
39-5094	Skincare Specialists	\$47,632	0.082%

Figure III-9. Occupational Mix and Average Wages for Hotel Industry, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Hotel Workers (c)
39-3012	Gaming and Sports Book Writers and Runners	\$30,159	0.061%
39-9041	Residential Advisors	\$29,887	0.060%
39-5012	Hairdressers, Hairstylists, and Cosmetologists	\$39,520	0.058%
39-5092	Manicurists and Pedicurists	\$23,005	0.057%
39-7011	Tour Guides and Escorts	\$31,761	0.047%
39-9011	Childcare Workers	\$31,540	0.039%
39-2011	Animal Trainers	\$45,123	0.003%
	Weighted Average Annual Wage	\$31,928	7.056%
41-0000	Sales and Related Occupations		
41-3099	Sales Representatives, Services, All Other	\$85,023	0.890%
41-2011	Cashiers	\$26,859	0.790%
41-2031	Retail Salespersons	\$30,457	0.309%
41-1011	First-Line Supervisors of Retail Sales Workers	\$47,883	0.130%
41-2021	Counter and Rental Clerks	\$31,919	0.075%
41-1012	First-Line Supervisors of Non-Retail Sales Workers	\$96,139	0.070%
41-3041	Travel Agents	\$44,829	0.033%
41-9041	Telemarketers	\$29,198	0.029%
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$65,591	0.020%
41-9022	Real Estate Sales Agents	\$68,040	0.007%
41-3011	Advertising Sales Agents	\$72,989	0.005%
	Weighted Average Annual Wage	\$53,482	2.358%
43-0000	Office and Administrative Support Occupations		
43-4081	Hotel, Motel, and Resort Desk Clerks	\$35,774	12.525%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	\$66,668	1.466%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$50,052	1.084%
43-9061	Office Clerks, General	\$39,997	0.551%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$43,612	0.485%
43-4051	Customer Service Representatives	\$45,657	0.444%
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	\$35,784	0.442%

Figure III-9. Occupational Mix and Average Wages for Hotel Industry, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Hotel Workers (c)
43-2011	Switchboard Operators, Including Answering Service	\$37,607	0.361%
43-4171	Receptionists and Information Clerks	\$37,546	0.244%
43-5081	Stock Clerks and Order Fillers	\$32,149	0.215%
43-6011	Executive Secretaries and Executive Administrative Assistants	\$69,716	0.190%
43-5071	Shipping, Receiving, and Traffic Clerks	\$36,220	0.123%
43-3051	Payroll and Timekeeping Clerks	\$53,413	0.092%
43-5032	Dispatchers, Except Police, Fire, and Ambulance	\$44,634	0.074%
43-3021	Billing and Posting Clerks	\$47,723	0.063%
43-3061	Procurement Clerks	\$49,322	0.031%
43-5061	Production, Planning, and Expediting Clerks	\$57,140	0.019%
43-4041	Credit Authorizers, Checkers, and Clerks	\$44,847	0.011%
43-4151	Order Clerks	\$41,890	0.011%
43-3011	Bill and Account Collectors	\$49,221	0.009%
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	\$34,184	0.008%
43-4199	Information and Record Clerks, All Other	\$48,826	0.007%
43-4071	File Clerks	\$39,187	0.005%
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	\$31,056	0.005%
43-9011	Computer Operators	\$48,685	0.005%
43-9071	Office Machine Operators, Except Computer	\$32,747	0.004%
43-3099	Financial Clerks, All Other	\$43,338	0.003%
	Weighted Average Annual Wage	\$40,271	18.649%
45-0000	Farming, Fishing, and Forestry Occupations		
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	\$26,179	0.032%
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	\$25,936	0.003%
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	\$78,486	0.002%
	Weighted Average Annual Wage	\$29,280	0.037%
47-0000	Construction and Extraction Occupations		
47-2141	Painters, Construction and Maintenance	\$47,652	0.077%
47-2031	Carpenters	\$63,165	0.057%

Figure III-9. Occupational Mix and Average Wages for Hotel Industry, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Hotel Workers (c)
47-2111	Electricians	\$84,223	0.030%
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$85,954	0.011%
47-2152	Plumbers, Pipefitters, and Steamfitters	\$82,675	0.010%
47-2061	Construction Laborers	\$48,816	0.009%
47-2073	Operating Engineers and Other Construction Equipment Operators	\$77,565	0.008%
47-2041	Carpet Installers	\$53,208	0.003%
47-4051	Highway Maintenance Workers	\$56,618	0.002%
	Weighted Average Annual Wage	\$62,281	0.208%
49-0000	Installation, Maintenance, and Repair Occupations		
49-9071	Maintenance and Repair Workers, General	\$50,605	4.446%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	\$90,340	0.391%
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	\$38,422	0.092%
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$51,032	0.043%
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$56,193	0.027%
49-9098	Helpers--Installation, Maintenance, and Repair Workers	\$48,488	0.023%
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	\$45,302	0.011%
49-9041	Industrial Machinery Mechanics	\$70,075	0.010%
49-3023	Automotive Service Technicians and Mechanics	\$55,124	0.008%
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	\$58,707	0.007%
49-9043	Maintenance Workers, Machinery	\$42,351	0.007%
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	\$59,633	0.002%
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	\$65,933	0.002%
	Weighted Average Annual Wage	\$53,515	5.070%
51-0000	Production Occupations		
51-6011	Laundry and Dry-Cleaning Workers	\$28,552	1.573%
51-3011	Bakers	\$29,436	0.175%
51-8021	Stationary Engineers and Boiler Operators	\$75,624	0.053%
51-1011	First-Line Supervisors of Production and Operating Workers	\$67,828	0.049%
51-6052	Tailors, Dressmakers, and Custom Sewers	\$35,179	0.017%
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$42,183	0.011%

Figure III-9. Occupational Mix and Average Wages for Hotel Industry, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Hotel Workers (c)
51-3021	Butchers and Meat Cutters	\$34,265	0.008%
51-6031	Sewing Machine Operators	\$26,245	0.006%
51-6021	Pressers, Textile, Garment, and Related Materials	\$24,822	0.006%
51-6093	Upholsterers	\$40,577	0.004%
51-3092	Food Batchmakers	\$28,450	0.002%
51-6051	Sewers, Hand	\$26,031	0.002%
51-9198	Helpers--Production Workers	\$31,286	0.002%
	Weighted Average Annual Wage	\$31,128	1.907%
53-0000	Transportation and Material Moving Occupations		
53-6021	Parking Lot Attendants	\$28,363	0.453%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$30,670	0.290%
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	\$59,643	0.033%
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	\$51,208	0.018%
53-3033	Light Truck or Delivery Services Drivers	\$41,869	0.017%
53-7061	Cleaners of Vehicles and Equipment	\$26,168	0.008%
53-7199	Material Moving Workers, All Other	\$58,830	0.005%
53-6031	Automotive and Watercraft Service Attendants	\$26,859	0.004%
53-6061	Transportation Attendants, Except Flight Attendants	\$40,660	0.003%
53-5021	Captains, Mates, and Pilots of Water Vessels	\$83,149	0.003%
53-7051	Industrial Truck and Tractor Operators	\$43,099	0.003%
53-3031	Driver/Sales Workers	\$33,058	0.002%
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$46,595	0.002%
	Weighted Average Annual Wage	\$31,621	0.840%
	Total, Land Use	\$39,935	100.000%

Notes:

(a) Occupational mix by industry was obtained from US Bureau of Labor Statistics, Occupational Employment Statistics, 2013.

(b) Wage data for the San Francisco-Redwood City-San Mateo Metro Division obtained from California Economic Development Department, OES Employment and Wages by Occupation, 2013.

(c) Distribution of workers is calculated based on the existing distribution of employment by industry in San Mateo County, provided by Quarterly Census of Employment and Wages (QCEW), 2013.

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

Figure III-10. Occupational Mix and Average Wages for Retail/ Restaurants/ Services

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Retail/ Restaurants/ Services Workers (c)
11-0000	Management Occupations		
11-9051	Food Service Managers	\$63,767	1.301%
11-1021	General and Operations Managers	\$150,628	0.820%
11-2022	Sales Managers	\$161,570	0.081%
	Weighted Average Annual Wage	\$99,709	2.202%
13-0000	Business and Financial Operations Occupations		
13-2011	Accountants and Auditors	\$86,991	0.045%
13-1199	Business Operations Specialists, All Other	\$94,719	0.038%
13-1022	Wholesale and Retail Buyers, Except Farm Products	\$60,856	0.037%
13-1071	Human Resources Specialists	\$80,583	0.023%
13-1151	Training and Development Specialists	\$82,770	0.022%
13-1121	Meeting, Convention, and Event Planners	\$63,284	0.020%
13-1051	Cost Estimators	\$87,676	0.020%
13-1161	Market Research Analysts and Marketing Specialists	\$87,374	0.016%
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	\$79,939	0.012%
13-2072	Loan Officers	\$99,586	0.010%
	Weighted Average Annual Wage	\$81,548	0.243%
15-0000	Computer and Mathematical Occupations		
15-1151	Computer User Support Specialists	\$70,345	0.009%
15-1142	Network and Computer Systems Administrators	\$95,860	0.003%
15-1132	Software Developers, Applications	\$115,740	0.003%
15-1134	Web Developers	\$91,692	0.002%
15-1131	Computer Programmers	\$100,716	0.002%
15-1152	Computer Network Support Specialists	\$82,738	0.002%
15-1121	Computer Systems Analysts	\$104,935	0.001%
15-1133	Software Developers, Systems Software	\$118,614	0.001%
15-1199	Computer Occupations, All Other	\$97,276	0.001%
	Weighted Average Annual Wage	\$89,553	0.026%

Figure III-10. Occupational Mix and Average Wages for Retail/ Restaurants/ Services (Continued)

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Retail/ Restaurants/ Services Workers (c)
17-0000	Architecture and Engineering Occupations		
17-3011	Architectural and Civil Drafters	\$67,421	0.001%
17-2072	Electronics Engineers, Except Computer	\$105,947	0.000%
17-2141	Mechanical Engineers	\$100,372	0.000%
17-3023	Electrical and Electronics Engineering Technicians	\$68,604	0.000%
17-2112	Industrial Engineers	\$107,849	0.000%
17-2071	Electrical Engineers	\$108,982	0.000%
17-2061	Computer Hardware Engineers	\$121,274	0.000%
17-3019	Drafters, All Other	\$62,261	0.000%
17-2199	Engineers, All Other	\$113,444	0.000%
	Weighted Average Annual Wage	\$87,823	0.002%
19-0000	Life, Physical, and Social Science Occupations		
19-4099	Life, Physical, and Social Science Technicians, All Other	\$42,118	0.000%
19-1032	Foresters	\$85,449	0.000%
	Weighted Average Annual Wage	\$50,019	0.000%
21-0000	Community and Social Service Occupations		
21-1019	Counselors, All Other	\$54,835	0.000%
21-1091	Health Educators	\$74,644	0.000%
	Weighted Average Annual Wage	\$63,741	0.000%
23-0000	Legal Occupations		
23-2093	Title Examiners, Abstractors, and Searchers	\$76,809	0.000%
23-2099	Legal Support Workers, All Other	\$64,021	0.000%
23-1011	Lawyers	\$171,324	0.000%
23-2011	Paralegals and Legal Assistants	\$71,528	0.000%
	Weighted Average Annual Wage	\$87,762	0.001%
25-0000	Education, Training, and Library Occupations		
25-3021	Self-Enrichment Education Teachers	\$46,984	0.004%
25-3099	Teachers and Instructors, All Other, Except Substitute Teachers	\$69,029	0.000%

Figure III-10. Occupational Mix and Average Wages for Retail/Restaurants/Services (Continued)

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Retail/ Restaurants/ Services Workers (c)
	Weighted Average Annual Wage	\$47,770	0.004%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations		
27-1023	Floral Designers	\$36,644	0.025%
27-1026	Merchandise Displayers and Window Trimmers	\$38,931	0.025%
27-3031	Public Relations Specialists	\$83,345	0.008%
27-1024	Graphic Designers	\$72,419	0.006%
27-1025	Interior Designers	\$76,587	0.004%
27-3012	Public Address System and Other Announcers	\$31,566	0.003%
	Weighted Average Annual Wage	\$47,673	0.071%
29-0000	Healthcare Practitioners and Technical Occupations		
29-2052	Pharmacy Technicians	\$46,326	0.291%
29-1051	Pharmacists	\$137,654	0.210%
29-2081	Opticians, Dispensing	\$38,051	0.033%
	Weighted Average Annual Wage	\$81,749	0.534%
31-0000	Healthcare Support Occupations		
31-9095	Pharmacy Aides	\$28,446	0.046%
31-9011	Massage Therapists	\$45,586	0.024%
31-9099	Healthcare Support Workers, All Other	\$44,780	0.003%
	Weighted Average Annual Wage	\$34,717	0.073%
33-0000	Protective Service Occupations		
33-9032	Security Guards	\$32,013	0.047%
33-9099	Protective Service Workers, All Other	\$56,801	0.011%
33-1099	First-Line Supervisors of Protective Service Workers, All Other	\$54,040	0.007%
	Weighted Average Annual Wage	\$38,701	0.065%
35-0000	Food Preparation and Serving Related Occupations		
	Combined Food Preparation and Serving Workers, Including Fast Food		
35-3021	Food	\$23,509	23.920%
35-3031	Waiters and Waitresses	\$25,413	19.241%
35-2014	Cooks, Restaurant	\$29,161	8.873%

Figure III-10. Occupational Mix and Average Wages for Retail/Restaurants/Services (Continued)

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Retail/ Restaurants/ Services Workers (c)
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	\$40,256	5.919%
35-2011	Cooks, Fast Food	\$25,514	4.716%
35-2021	Food Preparation Workers	\$23,942	4.395%
35-9021	Dishwashers	\$23,035	3.592%
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$26,673	3.111%
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	\$24,284	2.560%
	Weighted Average Annual Wage	\$26,226	76.327%
37-0000	Building and Grounds Cleaning and Maintenance Occupations		
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$28,396	0.485%
37-2012	Maids and Housekeeping Cleaners	\$35,419	0.041%
	Weighted Average Annual Wage	\$28,945	0.527%
39-0000	Personal Care and Service Occupations		
39-5012	Hairdressers, Hairstylists, and Cosmetologists	\$39,520	0.214%
39-2021	Nonfarm Animal Caretakers	\$35,348	0.064%
39-5092	Manicurists and Pedicurists	\$23,005	0.046%
39-3091	Amusement and Recreation Attendants	\$24,899	0.031%
39-1021	First-Line Supervisors of Personal Service Workers	\$49,758	0.019%
39-5094	Skincare Specialists	\$47,632	0.017%
	Weighted Average Annual Wage	\$36,583	0.390%
41-0000	Sales and Related Occupations		
41-2011	Cashiers	\$26,859	6.363%
41-2031	Retail Salespersons	\$30,457	3.344%
41-1011	First-Line Supervisors of Retail Sales Workers	\$47,883	1.214%
	Weighted Average Annual Wage	\$30,298	10.921%
43-0000	Office and Administrative Support Occupations		
43-5081	Stock Clerks and Order Fillers	\$32,149	2.065%
43-4051	Customer Service Representatives	\$45,657	0.446%
43-9061	Office Clerks, General	\$39,997	0.363%

Figure III-10. Occupational Mix and Average Wages for Retail/Restaurants/Services (Continued)

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Retail/ Restaurants/ Services Workers (c)
43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$50,052	0.356%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	\$66,668	0.265%
43-5071	Shipping, Receiving, and Traffic Clerks	\$36,220	0.158%
	Weighted Average Annual Wage	\$39,003	3.653%
45-0000	Farming, Fishing, and Forestry Occupations		
45-2041	Graders and Sorters, Agricultural Products	\$34,254	0.005%
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	\$25,936	0.004%
	Weighted Average Annual Wage	\$30,537	0.009%
47-0000	Construction and Extraction Occupations		
47-2121	Glaziers	\$56,415	0.009%
47-2031	Carpenters	\$63,165	0.005%
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$85,954	0.002%
47-2041	Carpet Installers	\$53,208	0.001%
	Weighted Average Annual Wage	\$61,425	0.017%
49-0000	Installation, Maintenance, and Repair Occupations		
49-3023	Automotive Service Technicians and Mechanics	\$55,124	0.521%
49-3021	Automotive Body and Related Repairers	\$52,600	0.141%
49-9071	Maintenance and Repair Workers, General	\$50,605	0.120%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	\$90,340	0.091%
49-3093	Tire Repairers and Changers	\$32,447	0.040%
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	\$55,399	0.039%
49-9098	Helpers--Installation, Maintenance, and Repair Workers	\$48,488	0.037%
	Weighted Average Annual Wage	\$56,300	0.988%
51-0000	Production Occupations		
51-3011	Bakers	\$29,436	0.392%
51-3021	Butchers and Meat Cutters	\$34,265	0.313%
51-1011	First-Line Supervisors of Production and Operating Workers	\$67,828	0.071%

Figure III-10. Occupational Mix and Average Wages for Retail/Restaurants/Services (Continued)

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Retail/ Restaurants/ Services Workers (c)
51-6011	Laundry and Dry-Cleaning Workers	\$28,552	0.064%
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	\$24,425	0.062%
51-3092	Food Batchmakers	\$28,450	0.047%
	Weighted Average Annual Wage	\$33,458	0.949%
53-0000	Transportation and Material Moving Occupations		
53-3031	Driver/Sales Workers	\$33,058	1.421%
53-7064	Packers and Packagers, Hand	\$26,940	0.434%
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$30,670	0.370%
53-3033	Light Truck or Delivery Services Drivers	\$41,869	0.328%
53-7061	Cleaners of Vehicles and Equipment	\$26,168	0.239%
53-6031	Automotive and Watercraft Service Attendants	\$26,859	0.107%
53-6021	Parking Lot Attendants	\$28,363	0.100%
	Weighted Average Annual Wage	\$31,915	2.999%
	Total, Minor Occupation Grouping	\$29,832.77	100.000%

Notes:

(a) Occupational mix by industry was obtained from US Bureau of Labor Statistics, Occupational Employment Statistics, 2013.

(b) Wage data for the San Francisco-Redwood City-San Mateo Metro Division obtained from California Economic Development Department, OES Employment and Wages by Occupation, 2013.

(c) Distribution of workers is calculated based on the existing distribution of employment by industry in San Mateo County, provided by Quarterly Census of Employment and Wages (QCEW), 2013.

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

Figure III-11. Occupational Mix and Average Wages for Office/ R&D/ Medical Office

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Office/ R&D/ Medical Office Workers (c)
11-0000	Management Occupations		
11-1021	General and Operations Managers	\$150,628	2.410%
11-3021	Computer and Information Systems Managers	\$165,650	1.436%
11-3031	Financial Managers	\$169,227	0.920%
11-9199	Managers, All Other	\$141,691	0.499%
11-2022	Sales Managers	\$161,570	0.494%
11-2021	Marketing Managers	\$175,141	0.469%
11-1011	Chief Executives	\$207,735	0.347%
11-3011	Administrative Services Managers	\$110,659	0.339%
11-9041	Architectural and Engineering Managers	\$168,643	0.336%
	Weighted Average Annual Wage	\$159,380	7.251%
13-0000	Business and Financial Operations Occupations		
13-2011	Accountants and Auditors	\$86,991	2.067%
13-1111	Management Analysts	\$119,726	1.797%
13-1199	Business Operations Specialists, All Other	\$94,719	1.416%
13-1161	Market Research Analysts and Marketing Specialists	\$87,374	1.124%
13-1071	Human Resources Specialists	\$80,583	1.109%
13-2051	Financial Analysts	\$124,663	0.768%
13-2052	Personal Financial Advisors	\$125,077	0.660%
13-2072	Loan Officers	\$99,586	0.579%
13-1151	Training and Development Specialists	\$82,770	0.460%
	Weighted Average Annual Wage	\$99,264	9.980%
15-0000	Computer and Mathematical Occupations		
15-1132	Software Developers, Applications	\$115,740	4.510%
15-1121	Computer Systems Analysts	\$104,935	2.827%
15-1151	Computer User Support Specialists	\$70,345	2.316%
15-1133	Software Developers, Systems Software	\$118,614	2.487%
15-1131	Computer Programmers	\$100,716	2.286%
15-1142	Network and Computer Systems Administrators	\$95,860	1.371%

Figure III-11. Occupational Mix and Average Wages for Office/ R&D/ Medical Office, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Office/ R&D/ Medical Office Workers (c)
15-1152	Computer Network Support Specialists	\$82,738	0.685%
15-1143	Computer Network Architects	\$125,331	0.732%
	Weighted Average Annual Wage	\$103,790	17.214%
17-0000	Architecture and Engineering Occupations		
17-2141	Mechanical Engineers	\$100,372	0.408%
17-2061	Computer Hardware Engineers	\$121,274	0.396%
17-2071	Electrical Engineers	\$108,982	0.315%
17-2051	Civil Engineers	\$108,648	0.315%
17-2072	Electronics Engineers, Except Computer	\$105,947	0.309%
17-2112	Industrial Engineers	\$107,849	0.300%
17-2199	Engineers, All Other	\$113,444	0.260%
17-3023	Electrical and Electronics Engineering Technicians	\$68,604	0.254%
17-2011	Aerospace Engineers	\$107,788	0.168%
17-1011	Architects, Except Landscape and Naval	\$102,163	0.139%
17-3029	Engineering Technicians, Except Drafters, All Other	\$73,531	0.137%
17-3011	Architectural and Civil Drafters	\$67,421	0.136%
	Weighted Average Annual Wage	\$102,350	3.138%
19-0000	Life, Physical, and Social Science Occupations		
19-1042	Medical Scientists, Except Epidemiologists	\$116,975	0.489%
19-2031	Chemists	\$102,011	0.259%
19-4021	Biological Technicians	\$66,854	0.250%
19-1021	Biochemists and Biophysicists	\$115,416	0.189%
19-2041	Environmental Scientists and Specialists, Including Health	\$103,842	0.176%
19-4099	Life, Physical, and Social Science Technicians, All Other	\$42,118	0.167%
19-4031	Chemical Technicians	\$52,559	0.142%
19-4061	Social Science Research Assistants	\$41,288	0.124%
	Weighted Average Annual Wage	\$89,127	1.795%

Figure III-11. Occupational Mix and Average Wages for Office/ R&D/ Medical Office, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Office/ R&D/ Medical Office Workers (c)
21-0000	Community and Social Service Occupations		
21-1014	Mental Health Counselors	\$43,140	0.105%
21-1093	Social and Human Service Assistants	\$39,234	0.097%
21-1023	Mental Health and Substance Abuse Social Workers	\$54,987	0.097%
21-1011	Substance Abuse and Behavioral Disorder Counselors	\$44,900	0.072%
21-1022	Healthcare Social Workers	\$79,571	0.059%
21-1021	Child, Family, and School Social Workers	\$53,429	0.046%
21-1091	Health Educators	\$74,644	0.037%
21-1094	Community Health Workers	\$45,861	0.032%
21-1099	Community and Social Service Specialists, All Other	\$53,338	0.029%
21-1015	Rehabilitation Counselors	\$36,442	0.022%
21-1012	Educational, Guidance, School, and Vocational Counselors	\$63,516	0.022%
	Weighted Average Annual Wage	\$51,827	0.618%
23-0000	Legal Occupations		
23-1011	Lawyers	\$171,324	1.165%
23-2011	Paralegals and Legal Assistants	\$71,528	0.572%
23-2093	Title Examiners, Abstractors, and Searchers	\$76,809	0.090%
	Weighted Average Annual Wage	\$135,415	1.827%
25-0000	Education, Training, and Library Occupations		
25-3098	Substitute Teachers	\$36,300	0.247%
25-9041	Teacher Assistants	\$34,995	0.057%
25-4021	Librarians	\$77,396	0.054%
25-4031	Library Technicians	\$53,641	0.037%
25-2021	Elementary School Teachers, Except Special Education	\$67,562	0.035%
25-3099	Teachers and Instructors, All Other, Except Substitute Teachers	\$69,029	0.033%
25-9099	Education, Training, and Library Workers, All Other	\$37,302	0.026%
25-2022	Middle School Teachers, Except Special and Career/Technical Education	\$69,808	0.023%
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	\$70,729	0.023%
	Weighted Average Annual Wage	\$48,507	0.536%

Figure III-11. Occupational Mix and Average Wages for Office/ R&D/ Medical Office, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Office/ R&D/ Medical Office Workers (c)
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations		
27-3042	Technical Writers	\$85,935	0.228%
27-3031	Public Relations Specialists	\$83,345	0.218%
27-1014	Multimedia Artists and Animators	\$84,934	0.114%
27-2012	Producers and Directors	\$95,971	0.090%
27-3043	Writers and Authors	\$66,197	0.061%
27-3022	Reporters and Correspondents	\$53,510	0.053%
27-1011	Art Directors	\$127,071	0.048%
27-4011	Audio and Video Equipment Technicians	\$58,639	0.033%
	Weighted Average Annual Wage	\$83,997	0.845%
29-0000	Healthcare Practitioners and Technical Occupations		
29-1141	Registered Nurses	\$129,166	1.422%
29-2061	Licensed Practical and Licensed Vocational Nurses	\$63,060	0.602%
29-1069	Physicians and Surgeons, All Other	\$192,701	0.506%
29-2021	Dental Hygienists	\$114,294	0.474%
29-1062	Family and General Practitioners	\$196,758	0.282%
29-1021	Dentists, General	\$167,318	0.231%
29-2071	Medical Records and Health Information Technicians	\$54,359	0.222%
29-1171	Nurse Practitioners	\$127,193	0.212%
29-1071	Physician Assistants	\$112,877	0.199%
	Weighted Average Annual Wage	\$127,464	4.150%
31-0000	Healthcare Support Occupations		
31-9092	Medical Assistants	\$44,014	1.318%
31-9091	Dental Assistants	\$49,244	0.750%
31-1014	Nursing Assistants	\$42,130	0.363%
31-1011	Home Health Aides	\$28,587	0.166%
	Weighted Average Annual Wage	\$44,273	2.598%

Figure III-11. Occupational Mix and Average Wages for Office/ R&D/ Medical Office, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Office/ R&D/ Medical Office Workers (c)
33-0000	Protective Service Occupations		
33-9032	Security Guards	\$32,013	2.059%
33-1099	First-Line Supervisors of Protective Service Workers, All Other	\$54,040	0.088%
	Weighted Average Annual Wage	\$32,919	2.147%
35-0000	Food Preparation and Serving Related Occupations		
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	\$23,509	0.389%
35-3031	Waiters and Waitresses	\$25,413	0.305%
35-2021	Food Preparation Workers	\$23,942	0.192%
35-2012	Cooks, Institution and Cafeteria	\$38,049	0.164%
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	\$23,710	0.159%
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	\$40,256	0.139%
35-3041	Food Servers, Nonrestaurant	\$33,434	0.131%
35-9021	Dishwashers	\$23,035	0.113%
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	\$24,284	0.108%
35-2014	Cooks, Restaurant	\$29,161	0.068%
35-3011	Bartenders	\$30,119	0.061%
	Weighted Average Annual Wage	\$27,622	1.828%
37-0000	Building and Grounds Cleaning and Maintenance Occupations		
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$28,396	4.662%
37-3011	Landscaping and Groundskeeping Workers	\$42,100	2.565%
37-2012	Maids and Housekeeping Cleaners	\$35,419	0.784%
37-2021	Pest Control Workers	\$53,698	0.316%
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	\$50,352	0.307%
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	\$62,696	0.303%
	Weighted Average Annual Wage	\$35,758	8.938%

Figure III-11. Occupational Mix and Average Wages for Office/ R&D/ Medical Office, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Office/ R&D/ Medical Office Workers (c)
39-0000	Personal Care and Service Occupations		
39-9021	Personal Care Aides	\$24,476	0.269%
39-3031	Ushers, Lobby Attendants, and Ticket Takers	\$27,761	0.096%
39-9011	Childcare Workers	\$31,540	0.037%
39-2021	Nonfarm Animal Caretakers	\$35,348	0.032%
39-1021	First-Line Supervisors of Personal Service Workers	\$49,758	0.022%
39-9032	Recreation Workers	\$29,101	0.021%
	Weighted Average Annual Wage	\$27,782	0.476%
41-0000	Sales and Related Occupations		
41-3099	Sales Representatives, Services, All Other	\$85,023	1.745%
41-3031	Securities, Commodities, and Financial Services Sales Agents	\$140,636	1.096%
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$100,443	0.666%
41-3021	Insurance Sales Agents	\$86,434	0.564%
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$65,591	0.388%
41-1012	First-Line Supervisors of Non-Retail Sales Workers	\$96,139	0.292%
41-2031	Retail Salespersons	\$30,457	0.284%
41-9041	Telemarketers	\$29,198	0.256%
	Weighted Average Annual Wage	\$92,201	5.290%
43-0000	Office and Administrative Support Occupations		
43-9061	Office Clerks, General	\$39,997	3.754%
43-4051	Customer Service Representatives	\$45,657	3.408%
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	\$43,612	2.641%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	\$50,052	1.862%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	\$66,668	1.612%
43-4171	Receptionists and Information Clerks	\$37,546	1.585%
43-6011	Executive Secretaries and Executive Administrative Assistants	\$69,716	1.228%
43-3071	Tellers	\$31,987	1.057%
43-6013	Medical Secretaries	\$44,675	0.919%

Figure III-11. Occupational Mix and Average Wages for Office/ R&D/ Medical Office, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Office/ R&D/ Medical Office Workers (c)
43-3021	Billing and Posting Clerks	\$47,723	0.787%
43-0000	Office and Administrative Support Occupations		
	Weighted Average Annual Wage	\$46,632	18.852%
45-0000	Farming, Fishing, and Forestry Occupations		
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	\$25,936	0.020%
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	\$26,179	0.008%
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	\$78,486	0.004%
45-2011	Agricultural Inspectors	\$66,342	0.002%
45-4011	Forest and Conservation Workers	\$56,628	0.001%
	Weighted Average Annual Wage	\$34,801	0.034%
47-0000	Construction and Extraction Occupations		
47-2031	Carpenters	\$63,165	0.122%
47-2111	Electricians	\$84,223	0.116%
47-4011	Construction and Building Inspectors	\$74,833	0.066%
47-2152	Plumbers, Pipefitters, and Steamfitters	\$82,675	0.044%
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	\$85,954	0.043%
47-2141	Painters, Construction and Maintenance	\$47,652	0.043%
47-2073	Operating Engineers and Other Construction Equipment Operators	\$77,565	0.040%
	Weighted Average Annual Wage	\$73,634	0.474%
49-0000	Installation, Maintenance, and Repair Occupations		
49-9071	Maintenance and Repair Workers, General	\$50,605	0.826%
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	\$59,633	0.254%
49-2011	Computer, Automated Teller, and Office Machine Repairers	\$51,460	0.185%
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$51,032	0.152%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	\$90,340	0.143%
49-9052	Telecommunications Line Installers and Repairers	\$68,467	0.129%
49-2098	Security and Fire Alarm Systems Installers	\$44,478	0.103%
	Weighted Average Annual Wage	\$56,122	1.792%

Figure III-11. Occupational Mix and Average Wages for Office/ R&D/ Medical Office, Continued

Occupation Code	Occupation Name (a)	Average Annual Wage (b)	% of Total Office/ R&D/ Medical Office Workers (c)
51-0000	Production Occupations		
51-2092	Team Assemblers	\$32,811	1.384%
51-9198	Helpers--Production Workers	\$31,286	0.925%
51-2099	Assemblers and Fabricators, All Other	\$28,796	0.631%
51-9199	Production Workers, All Other	\$35,474	0.511%
51-9111	Packaging and Filling Machine Operators and Tenders	\$34,458	0.477%
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	\$42,183	0.428%
51-2022	Electrical and Electronic Equipment Assemblers	\$38,168	0.323%
51-4041	Machinists	\$60,011	0.238%
	Weighted Average Annual Wage	\$34,930	4.916%
53-0000	Transportation and Material Moving Occupations		
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	\$30,670	3.512%
53-7064	Packers and Packagers, Hand	\$26,940	0.932%
53-7051	Industrial Truck and Tractor Operators	\$43,099	0.401%
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$46,595	0.270%
53-3033	Light Truck or Delivery Services Drivers	\$41,869	0.189%
	Weighted Average Annual Wage	\$32,163	5.304%
	Total, Office/R&D/Medical Office	\$77,342	100.000%

Notes:

(a) Occupational mix by industry was obtained from US Bureau of Labor Statistics, Occupational Employment Statistics, 2013.

(b) Wage data for the San Francisco-Redwood City-San Mateo Metro Division obtained from California Economic Development Department, OES Employment and Wages by Occupation, 2013.

(c) Distribution of workers is calculated based on the existing distribution of employment by industry in San Mateo County, provided by Quarterly Census of Employment and Wages (QCEW), 2013.

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

Household Incomes

Based on the employee wage calculations discussed above, household incomes are estimated for each prototype. This step assumes that the income of the second wage-earner is similar to the wage of the first wage-earner. In order to calculate the annual household income, the average worker wage is multiplied by the number of wage-earners per household. According to the U.S. Census Bureau American Community Survey 3-Year Estimates, 2010-2012, there is an average of 1.53 wage-earners per household in Menlo Park. The average annual wage per employee within each occupation was multiplied by 1.53 in order to determine annual average household income.

Employee households are then categorized as very low, low, moderate, and above moderate income based on the income definitions and cut-offs established by the California Housing and Community Development Department (HCD). According to the U.S. Census Bureau American Community Survey 5-Year Estimates, 2008-2012, the average household size Menlo Park is 2.5. This has been rounded to 3, the nearest whole number, as a conservative estimate, since incomes are higher for three-person households than for two-person households. The income categories for very low, low, moderate, and above moderate income households are therefore based on the household size of three persons, using the California Department of Housing and Community Development's definitions of income thresholds for area median income, as shown in Figure III-12.

Figure III-12. Household Income Categories

Income Category	3-Person Household
Very Low Income (<=50% AMI)	\$50,900
Low Income (51-80% AMI)	\$81,450
Moderate Income (81-120% AMI)	\$111,250
Above Moderate Income (>=120%)	>\$111,250

Source: California Department of Housing and Community Development, "State Income Limits for 2014", February 28, 2014.

Using the income categories described above, the new worker households were sorted into income groups. For example, worker households that earn \$50,900 or less were qualified as very low income households; those earning between \$50,900 and \$81,540 were classified as low income households, and those earning between \$81,450 and \$111,250 were categorized as moderate income households. As shown in Figure III-13 below, most hotel worker households are in very low and low income categories, the vast majority of retail/ restaurants/ services worker households are in the very low income categories, and less than half of office/ R&D/ medical office workers are in very low, low, and moderate income categories. Above moderate income households were removed from the subsequent steps of the nexus analysis, as it is determined that these income groups would be able to afford market-rate housing.

Figure III-13. Number of Worker Households by Income Category

Prototype	Number of Employee Households
Hotel	
Very Low Income (<=50% AMI)	22.8
Low Income (51-80% AMI)	35.2
Moderate Income (81-120% AMI)	3.2
Above Moderate (>=120%)	4.2
Total	65.4
Retail, Restaurants and Personal Services	
Very Low Income (<=50% AMI)	84.4
Low Income (51-80% AMI)	10.0
Moderate Income (81-120% AMI)	2.3
Above Moderate (>=120%)	1.4
Total	98.0
Office, R&D and Medical Office Land Use	
Very Low Income (<=50% AMI)	34.7
Low Income (51-80% AMI)	52.0
Moderate Income (81-120% AMI)	18.7
Above Moderate (>=120%)	90.7
Total	196.1

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

IV. HOUSING AFFORDABILITY GAP

Estimating the housing affordability gap is necessary to calculate the maximum potential housing impact fee. This affordability gap analysis was conducted at the county-wide level so that it can be applied to all the jurisdictions in San Mateo County participating in the multi-city nexus study.⁴ This section summarizes the approach to calculating the housing affordability gap and the results of the analysis.

METHODOLOGY

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

1. Estimating affordable rents and housing prices for households in target income groups.
2. Estimating development costs of building new, modest housing units, based on current cost and market data.
3. Calculating the difference between what renters and owners can afford to pay for housing and the cost of development of rental and ownership units.

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

- Both the California Department of Housing and Community Development Department (HCD) and U.S. Housing and Urban Development Department (HUD) define the ability to pay for housing at the county (rather than the city) level. Existing affordable housing studies and policies in most jurisdictions rely on these countywide area median income (AMI) estimates published by HCD or by HUD. This analysis uses 2014 income limits published by California Department of Housing and Community Development (HCD).
- Construction costs for housing and commercial development do not vary dramatically between different jurisdictions in San Mateo County, because the cost of labor and materials is regional in nature.

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

⁴ Although there is a single housing affordability gap estimate for all jurisdictions participating in the multi-city nexus studies, the subsequent steps in the fee calculations considers market and household characteristics for the City of Menlo Park, generating a unique maximum fee for each jurisdiction in the county, as described in Section V of this report.

ESTIMATING AFFORDABLE RENTS AND SALES PRICES

The first step in calculating the housing affordability gap is to determine the maximum amount that households at the targeted income levels can afford to pay for housing. For eligibility purposes, most affordable housing programs define very low income households as those earning approximately 50 percent or less of area median income (AMI), low income households as those earning between 51 and 80 percent of AMI, and moderate income households as those earning between 81 and 120 percent of AMI. In order to ensure that the affordability of housing does not use the top incomes in each category, the analysis uses a point within the income ranges for the low and moderate income groups.⁵

Figure IV-1 and Figure IV-2 show the calculations for rental housing. The maximum affordable monthly rent is calculated as 30 percent of gross monthly household income, minus a deduction for utilities. For example, a very low income, three-person household could afford to spend \$1,273 on total monthly housing costs. After deducting for utilities, \$1,220 a month is available to pay for rent. Figure IV-3 and Figure IV-4 demonstrate housing affordability for homeowners. Homeowners are assumed to pay a maximum of 35 percent of gross monthly income on total housing costs, depending on income level. The maximum affordable price for for-sale housing is then calculated based on the total monthly mortgage payment that a homeowner could afford, using standard loan terms used by CalHFA programs and many private lenders for first-time homebuyers, including a five percent down payment (Figure IV-3). For example, a moderate income, three-person household could afford to spend \$2,974 a month on total housing costs, allowing for the purchase of a \$348,526 home.

Key assumptions used to calculate the maximum affordable rents and housing prices are discussed below.

- **Unit types:** For rental housing, the analysis included studios, one-, two-, and three-bedroom units. For for-sale housing, one-, two-, and three-bedroom units were included. These unit types represent the affordable and modest market-rate apartment and condominium units available in San Mateo County. Condominiums were used to represent modest for-sale housing because single-family homes in San Mateo County tend to be significantly more expensive than condominiums.
- **Occupancy and household size assumptions.** Because income levels for affordable housing programs vary by household size, calculating affordable unit prices requires defining household sizes for each unit type. Consistent with California Health and Safety Code Section 50052.5(h), unit occupancy was generally estimated as the number of bedrooms plus one. For example, a studio unit is assumed to be occupied by one person, a one bedroom unit is assumed to be occupied by two people, and so on. Several adjustments to this general assumption were made in order to capture the full range of household sizes. In particular, it is assumed that one-bedroom condominiums could be occupied by one- or two-person households, and three-bedroom apartments and condominiums could be occupied by four- or five-person households.⁶

⁵ For rental housing, 70 percent of AMI is used to represent low income households and 90 percent of AMI is used to represent moderate income households. For ownership housing, it is assumed that moderate income homebuyers may earn slightly less than the maximum for that income category (110 percent of AMI). Higher income limits are used for ownership than for rental housing because ownership housing is more expensive to purchase and maintain.

⁶ For these unit types, the maximum affordable home price (or rent) is calculated as the average price (or rent) that the relevant household sizes can afford to pay. For example, the maximum affordable home price for a one-bedroom condominium is calculated as the average of the maximum affordable home price for one- and two-person households.

- **Targeted income levels for rental housing:** For rental housing, affordable rents were calculated for very low income, low income, and moderate income households (see Figure IV-1 and Figure IV-2). For eligibility purposes, most affordable housing programs define very low income households as those earning 50 percent or less of area median income (AMI), low income households as those earning between 51 and 80 percent of AMI, and moderate income households as those earning between 81 and 120 percent of AMI. However, defining affordable housing expenses based at the top of each income range would result in prices that are not affordable to most of the households in each category. Thus, this analysis does not use the maximum income level for all of the income categories. Instead, for rental housing, 70 percent of AMI is used to represent moderate income households and 90 percent of AMI is used to represent moderate income households.
- **Targeted income levels for ownership housing** For ownership housing, affordable home prices were calculated only for moderate income households. Higher income limits are used for ownership than for rental housing because ownership housing is more expensive to purchase and maintain. It is assumed that moderate income homebuyers may earn slightly less than the maximum for that income category (110 percent of AMI).
- **Maximum monthly housing costs.**⁷ For all renters, maximum monthly housing costs are assumed to be 30 percent of gross household income. For homebuyers, 35 percent of gross income is assumed to be available for monthly housing costs, reflecting the higher incomes of this group.⁸ These standards are based on California’s Health & Safety Code Sections 50052.5 and 50053.
- **Utilities.** The monthly utility cost assumptions are based on utility allowances calculated by the U.S. Department of Housing and Urban Development for San Mateo County.⁹ Both renters and owners are assumed to pay for heating, cooking, other electric, and water heating. In addition, owners are assumed to pay for water and trash collection.¹⁰
- **Mortgage terms & costs included for ownership housing.** For ownership housing, the mortgage calculations are based on the terms typically offered to first-time homebuyers (such as the terms offered by the California Housing Finance Authority), which is a 30-year mortgage with a five percent down payment. A five percent down payment standard is also used by many private lenders for first-time homebuyers. Based on recent interest rates to first-time buyers, the analysis assumes a 5.375 percent annual interest rate.¹¹ In addition to mortgage payments and utilities, monthly

⁷ The calculation of homeowner affordability is conservative in that the model accounts for additional costs for buyers (such as utility costs) that might not be considered by all lenders.

⁸ The assumption that homebuyers spend 35 percent of gross household income on housing results in a reduced affordability gap than if 30 percent of gross household income were used instead.

⁹ U.S. Department of Housing and Urban Development, "Allowances for Tenant-Furnished Utilities and Other Services: Housing Authority of San Mateo County," November 2013.

¹⁰ Units are assumed to have natural gas heating, cooking, and water heating systems, as natural gas is the most common fuel for units located in San Mateo County. Sources: U.S. Census Bureau, 2012 American Community Survey, "Table B25117: Tenure by House Heating Fuel," San Mateo County; U.S. Census Bureau, 2011 American Housing Survey, "Table C-03-AH-M, San Francisco-San Mateo-Redwood City: Heating, Air Conditioning, and Appliances – All Housing Units."

¹¹ Sources: CalHFA Mortgage Calculator, accessed March 2014; Zillow.com, "Current Mortgage Rates and Home Loans," accessed March 2014; interviews with California Housing Finance Agency (CalHFA) Preferred Loan Officers, March 2014.

ownership housing costs include homeowner association (HOA) dues,¹² property taxes,¹³ private mortgage insurance,¹⁴ and hazard and casualty insurance.¹⁵

¹² HOA fees are estimated at \$300 per unit per month, based on common HOA fees in San Mateo County as reported in: Polaris Pacific, "Silicon Valley Condominium Market," February 2014.

¹³ The annual property tax rate is estimated at 1.18 percent of the sales price, based on the average total tax rate for San Mateo County (calculated from County of San Mateo, 2008-09 Property Tax Highlights http://www.co.sanmateo.ca.us/Attachments/controller/Files/PTH/PTH_2009.pdf) and discussions with Preferred Loan Officers.

¹⁴ The annual private mortgage insurance premium rate is estimated at 0.89 percent of the total mortgage amount, consistent with standard requirements for conventional loans with a five percent down payment. Sources: Genworth, February 2014; MGIC, December 2013; Radian, April 2014.

¹⁵ The annual hazard and casualty insurance rate is assumed to be 0.35 percent of the sales price, consistent with standard industry practice.

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

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

Notes:

- (a) 30 percent of maximum monthly household income.
- (b) Maximum monthly housing cost minus utility deduction.

Acronyms:

- AMI: Area median income
- HH: Household

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

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

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

Notes:

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

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

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

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

Notes:

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

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

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

(d) Maximum monthly housing cost minus deductions

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

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

Acronyms:

AMI: Area median income

HH: Household

HOA: Home owners association

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

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

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

Notes:

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

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

ESTIMATING HOUSING DEVELOPMENT COSTS

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

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

Rental Housing

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

Since these projects assumed state and federal funding, the labor costs included in the original pro formas reflect the prevailing wage requirement imposed by state and local governments. The costs shown in Figure IV-5 have been adjusted to subtract out the prevailing wage requirement because the development cost model used in the housing affordability gap analysis does not assume receipt of government subsidies. A rule of thumb used by local economists who assist affordable housing developers in obtaining public financing, is to estimate that, under the prevailing wage requirement, labor costs are 25 percent higher than would otherwise be the case. Therefore, on-site and off-site improvement costs obtained from the original pro formas are reduced by 25 percent to reflect actual labor costs that would apply to construction projects that do not have these requirements.¹⁶ Finally, on average, land acquisition costs accounted for 20 percent or less of these total adjusted costs.

¹⁶ These prevailing wage requirements refer only to labor cost requirements on construction projects that receive funding from the state or federal government. These are not the same as minimum wage requirements that individual cities may adopt.

Figure IV-5. Affordable Housing Project Pro Forma Data

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

Notes:

- (a) Calculated per square foot of net building area.
- (b) Excludes prevailing wage requirements for on-site and off-site hard costs.
- (c) Includes design, engineering, city permits and fees, construction interest, contingencies, legal, etc.
- (d) Total costs include developer fees.

Acronyms:

SF: Square feet

Source: Confidential Pro Forma Data; Vernazza Wolfe Associates, Inc; Strategic Economics, 2014.

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

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

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

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

Acronyms:

SF: Square feet

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

For-Sale Housing

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

Review of condominium sales data – In this approach, average sales prices from condominium units built in San Mateo County between 2008 and 2012 are used as a proxy for development costs¹⁷ This approach assumes that construction costs, land costs, soft costs, and developer profit are all included in the unit sales price. Using data provided by DataQuick, the consultant team analyzed sales prices of condominium units of various sizes in the seven cities that experienced condominium development that exceeded 10 units in the aggregate between 2008 and 2012. These seven cities included Brisbane, East Palo Alto, Millbrae, Redwood City, San Carlos, San Mateo City, and South San Francisco. The other jurisdictions in San Mateo County experienced little or no condominium development during this time period. Figure IV-7 summarizes the information that was used to generate a per-square-foot cost for condominium development of \$420.

Cost estimate of hypothetical condominium project - The second approach relied on published industry data sources and recent financial feasibility studies to estimate the development costs of a hypothetical condominium project, as described in Figure IV-8.¹⁸ Land costs were estimated based on recent DataQuick land transactions shown in Figure IV-6. RS Means cost data, adjusted for the Bay Area’s construction costs, was used to calculate hard costs. Based on a review of recent financial feasibility analyses in the Bay Area, soft costs were estimated at 30 percent of hard costs, and developer fees and profits were estimated at 12 percent of hard and soft costs. Using this second method, the development costs are estimated at \$495 per

¹⁷ Ideally, cost estimates would be based only on projects built in the last year or two. However, the decline in new construction after 2007 necessitated that the analysis use several years’ worth of data in order to estimate for-sale housing costs. Since costs are not adjusted for inflation, they may be slightly lower than actual costs required for a new project to be built in 2014 or 2015. This approach is more conservative – and likely more accurate – than applying across-the-board inflation factors to historic costs. Furthermore, the increasing cost of residentially zoned, high density parcels is the main source of development cost increase. Adjusting land costs for inflation is not easily done.

¹⁸ The hypothetical condominium building type is a Type V building with underground parking and floor-area ratio of 1.7. The building characteristics are described in Figure IV-8.

net square foot of building area. In order to ensure that the results of the affordability gap analysis are conservative, the lower development cost estimate of \$420 per net square foot was selected for ownership units.

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

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

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

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

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

Notes:

(a) Land value is calculated based on DataQuick records of vacant land transactions in the county. See Figure IV-6.

(b) Calculated based on RS Means cost estimates per square foot of net building area.

(c) Estimated at 30 percent of hard costs. Includes design, engineering, city permits and fees, construction interest, contingencies, legal, etc.

(d) Estimated at 12 percent of hard costs and soft costs.

Acronyms:

SF: square feet

Sources: RS Means, 2014; DataQuick 2014; Recent financial feasibility studies; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

Cost Estimates by Unit Size

The data sources described above also provided information on estimated unit sizes. Unit size information is needed to translate costs/sales prices per square foot to unit costs. Unit sizes are estimated separately for

rental and for-sale units. For the rental units, the recent inventory of projects developed by MidPen Housing in San Mateo County was analyzed. For ownership units, the average sizes of recently built condominium units (Figure IV-7) were analyzed.

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

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

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

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

Acronyms:

SF: Square feet

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

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

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

Acronyms:

SF: Square feet

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

CALCULATING THE HOUSING AFFORDABILITY GAP

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

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

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

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

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

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

Notes:

(a) Affordable rents are based on State of California Housing and Community Development FY 2014 Income Limits for San Mateo County. See Figure IV-2.

(b) Amount available for debt. Assumes 5% vacancy and collection loss and \$7,500 per unit per year for operating expenses and reserves based on recently built (2012-2014) and proposed affordable housing projects in the San Francisco Bay Area.

(c) Assumes 1.25 Debt Coverage Ratio.

(d) Assumes 6.38%, 30 year loan. Calculations based on annual payments.

(e) Assumes \$410/SF for development costs based on comparable project pro formas.

(f) Calculated as the difference between development costs and supportable debt.

Acronyms:

SF: Square feet

AMI: Area median income

Sources: Housing and Community Development, 2014; Selected San Mateo Rental Housing Pro Formas; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

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

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

Notes:

(a) See calculation in Figure IV-3.

(b) Assumes \$420/SF for development costs, based on recent condominium sales data.

(c) Calculated as the difference between development cost and affordable sales price.

Acronyms:

SF: Square feet

AMI: Area median income

Sources: DataQuick Sales Data, 2008-2012; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

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

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

Notes:

(a) Low income households are defined at 70 percent of AMI for renters and 80 percent of AMI for owners.

(b) Moderate income households are defined at 90 percent of AMI for renters and 110 percent AMI for owners.

Acronyms: AMI: Area median income.

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

V. MAXIMUM LINKAGE FEES

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

MAXIMUM FEE CALCULATION

To derive the maximum nexus-based fee, the housing affordability gap (see Section IV) is applied to the number of lower-income worker households linked to the prototypes. This is the basis for developing an estimate of the total affordability gap for each prototype. The total gap for each prototype is then divided by the size of each development prototype to calculate a single maximum fee per square foot.

Figure V-1 presents the results of the linkage fee calculations for each prototype. The calculations shown below assume that 100 percent of the very low, low, and moderate income households linked to the new commercial space would be accommodated in Menlo Park. The maximum fee results are \$154 per square foot for hotel, \$265 per square foot for retail/ restaurants/ services, and \$255 per square foot for office/ R&D/ medical office.

The calculated linkage fees are high for two reasons: 1) the cost of housing development in San Mateo County is high, creating a large affordability gap for very low, low, and moderate income households; 2) many of the workers associated with new commercial development, especially those in the retail and hotel industries, earn low wages and fall into very low and low income household categories. For these reasons, the highest fees are associated with retail/ restaurant/ personal services, generally referred to as service industries. Occupations in these industries offer workers the lowest average wage; hence the total affordability gap is highest for these employee households. Although average wages for hotel workers are similarly low, the density of workers in hotels is lower than in retail and in office/ R&D/ medical office space; therefore maximum linkage fees for hotels are the lowest among the three prototypes. Finally, while office workers earn the highest average wage of all three prototypes, the employment density of this prototype is the highest. Therefore, the calculated fees for the category covering office/ R&D/ medical office are higher than those calculated for hotel developments, and lower than the retail/ restaurants/ services.

The maximum fees shown in Figure V-1 are not the recommended fees for adoption. They are the nexus-justified fees that represent the maximum that the City of Menlo Park could charge to mitigate affordable housing demand related to commercial development.

Figure V-1. Maximum Commercial Linkage Fees

	Worker Households Requiring Affordable Housing	Total Affordability Gap	Size of Prototype (SF)	Maximum Fee per SF
Hotel	61	\$15,411,161	100,000	\$154
Retail, Restaurants and Personal Services	97	\$26,497,820	100,000	\$265
Office, R&D and Medical Office	105	\$25,538,453	100,000	\$255

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

SUMMARY OF CONSERVATIVE ASSUMPTIONS

- **Employment density assumptions.** For each commercial building prototype, an average employment density was applied based on a combination of national survey data for existing commercial buildings and a review of recently completed linkage fee nexus studies in the Bay Area. In order to create conservative assumptions about the number of jobs associated with new commercial development, the lower range of the density figures were selected for the analysis. Though some office developments in the Bay Area have much higher employment densities, particularly for high-technology tenants, the analysis used a lower estimate of density for the office/R&D/medical office prototype, resulting in a lower maximum fee estimate.
- **Cost estimates for affordability gap analysis.** The affordability gap analysis measures the difference between what households can afford to pay for housing and the cost of new housing units. To ensure that the gap is conservative, the development cost estimates are based on the lower range of land and construction costs in San Mateo County. In many sub-areas of the county, including priority-development areas and downtown locations, land costs for housing sites may be higher, particularly under today's market conditions.
- **Exclusion of extremely low income households.** Although new commercial development could potentially have impacts on affordable housing demand from extremely low income households, those impacts are not included in the analysis, thereby reducing the total fee calculation.
- **Affordability gap for owner households.** The calculation of the affordability gap for ownership households only considers moderate-income households. Low and very low income households are not considered in the calculation. This also results in a lower estimate of the maximum fee.
- **Feasibility analysis.** The analysis takes into account the financial feasibility of adding the maximum impact fee and reduced fee levels to the total cost of new development. The financial feasibility component of the analysis incorporates market-supportable assumptions about revenues, costs, land costs, and developer return expectations based on research on recent development trends. The results of financial analysis informed the final recommendations on the linkage fee.
- **Comparison to other jurisdictions.** The Consultant Team researched existing linkage fee in other Bay Area cities to determine the competitiveness of the maximum fee and reduced fee levels. The fee recommendations in this report incorporate the findings from the comparative analysis.
- **Overlap analysis.** The City is undertaking two impact fee nexus studies at the same time: the commercial linkage fee nexus study and the housing impact fee nexus study. To minimize the potential that some jobs could be double-counted by including the same worker households in both studies, the Consultant Team ensured that the recommended fees for the two programs (commercial linkage and housing fees) would – when combined –mitigate less than 100 percent of the total impact.

VI. FEASIBILITY AND POLICY CONSIDERATIONS

There are a number of policy considerations that can be taken into account when a jurisdiction considers an update to its commercial linkage fee. These policy factors include the likely impact of the proposed fee levels on future development, the potential increase to the city’s existing fees on commercial development, a comparison of proposed linkage fees with those fees already charged in adjacent jurisdictions, and how potential revenues from new linkage fees can benefit the city’s overall affordable housing goals. This section provides a discussion of some of the key financial and policy questions for Menlo Park.

PROTOTYPES AND FEE LEVELS

Commercial Prototypes

As described in Section III, the analysis estimates linkage fees for three commercial prototypes: hotel, retail/restaurants/ services, and office/ R&D/ medical office. The building characteristics, including size, density (floor-area-ratio), and parking assumptions are based on a review of recently built and proposed projects in San Mateo County (Figure VI-1). The financial feasibility of potential fee levels is tested for each of these prototypes.

Figure VI-1. Description of Commercial Prototypes

	Hotel	Retail/ Restaurants/ Services	Office/R&D/ Medical Office
Prototype Description			
Gross Building Area (GBA)	100,000	100,000	100,000
Podium Parking Area	11,970	30,000	63,000
Gross Building Area including Podium Parking (SF)	111,970	130,000	163,000
Efficiency Ratio (a)	N/A	0.95	0.9
Net Leasable Sq. Ft. (NSF)	N/A	95,000	90,000
Hotel Rooms	133		
Parking Spaces	160	400	300
Podium Parking	40	100	210
Surface Parking	120	300	90
Floor Area Ratio (b)	1.1	0.5	2.0
Land Area (Acres)	2.3	6.0	1.9
Land Area (SF)	101,791	260,000	81,500

Notes:

(a) Refers to ratio of gross building area to net leasable area. An efficiency ratio of 0.9 means that 90% of the gross building area is leasable.

(b) The floor-area-ratio (FAR) is often used as a measure of density. In this analysis, it is calculated as the gross building area (including podium parking) divided by the total land area.

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

Fee Levels

In order to provide Menlo Park with some guidance on how proposed fees could impact development decisions, the Consultant Team conducted a financial feasibility analysis that tested the impact of the maximum linkage fee, the existing fee, and other potential fee levels, on developer profit. Figure VI-2 illustrates the different fee scenarios by prototype.

Figure VI-2. Linkage Fee Scenarios by Prototype

Fee Scenarios	Hotel	Retail/ Restaurants / Services	Office/ R&D/ Medical Office
Existing Fee	\$8.76	\$8.76	\$16.15
Scenario 1 - Maximum Fee	\$154.11	\$264.98	\$255.38
Scenario 2	\$15	\$15	\$50
Scenario 3	\$10	\$10	\$35
Scenario 4	\$5	\$5	\$25

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

METHODOLOGY

Financial feasibility was tested using a pro forma model that measures the return on cost of the commercial prototypes. Return on cost is a commonly used metric indicating the profitability of a commercial project. The pro forma model tallies all development costs, including land, direct construction costs, indirect costs (including financing), and developer fees. Revenues from lease rates or hotel room rates are the basis for calculating annual income from the new commercial development. The total operating costs are subtracted from the total revenues to calculate the annual net operating income. The return on cost is then estimated by dividing the annual net operating income by the total development costs. The fee levels were then added as an additional development cost to measure the resulting change in the developer's return on cost.

KEY INPUTS

The key revenue and cost inputs to the financial pro forma analysis are based on market research and published resources. The data inputs are explained in more detail below.

Revenues

To estimate income from commercial development, the analysis used rental data from Costar for the Southern San Mateo County sub-market for existing retail and office buildings. A 20 percent increase was applied to account for the value premium of new commercial space. Hotel room revenue is estimated based on July 2015 estimates of average daily rates (\$210 per room) and occupancy rates (80 percent) obtained from HVS Consulting and Smith Travel Research for the Silicon Valley market area. A five percent increase in room rates was applied to account for the higher rates achieved in the Menlo Park market. The revenue inputs are shown in Figure VI-3.

Direct and Indirect Costs

Cost estimates for the commercial prototypes include direct construction costs (site work, building costs, and parking), indirect costs, financing costs, and developer overhead and profit. Direct building construction cost estimates for office/ R&D/ medical office and retail/ restaurants/ services are based on RS Means. Hotel costs were estimated based on recent data from HVS Consulting and Smith Travel Research, and include costs for Furniture, Fixtures, and Equipment (FF&E). Direct and indirect cost inputs for the pro forma analysis are shown in Figure VI-4.

Land Costs

One of the critical cost factors for a commercial development project is land cost. To determine the land value of sites zoned for commercial uses, the Consultant Team analyzed recent sales transactions in the county and reviewed third-party property appraisals, with a focus on the Southern San Mateo County submarket (where the City of Menlo Park is located). According to the data, land value for commercially zoned land sold in recent years is \$122 per square foot. Based on this work, the pro forma analysis estimated a land value of \$125 per square foot in Menlo Park (see Figure VI-5). The actual value of any particular site is likely to vary based on its location, amenities, and property owner expectations, among other factors.

Return on Cost Thresholds

In order to understand how the different fee levels impact financial feasibility, the return on cost results can be compared to an investor's expectations for each type of development. The thresholds for this analysis were pegged to investor expectations regarding overall capitalization rates (cap rate) for each product type in the Bay Area. The cap rate, which is measured by dividing net income generated by a property by the total project value, is a commonly used metric to estimate potential returns. Lower cap rates signify high performing markets. In this analysis, the total project value is equivalent to the total development cost. PWC Real Estate Investor Survey (Fourth Quarter 2014) was the primary data source for determining cap rates for office/ R&D/ medical office and retail/restaurant/services uses. For hotel, cap rate data was obtained from HVS, a hotel consulting firm that tracks hotel markets.

To ensure that the financial analysis is conservative and does not reflect peak market conditions, the thresholds selected for determining project feasibility are slightly higher than the published cap rates. It was determined that the threshold for the return on cost is between 6.75 percent and 7.0 percent for office/ R&D/ medical office and retail/ restaurants/ services prototypes, and between 7.0 percent and 7.25 percent for hotel (see Figure VI-6).

Figure VI-3. Pro Forma Revenue Inputs by Prototype

Prototypes	Metric	Input
Hotel		
Average Daily Room Rate	Per Room	\$220
Occupancy Rate	Annual	80%
Revenue per Available Room	Per Room	\$176
Other Revenue per Room	Per Room	\$30
Gross Annual Room Income (a)	RevPAR	\$64,240
Gross Annual Other Revenue	Per Room	\$10,950
Less: Vacancy (b)		\$0
Less: Operating Expenses (c)	70%	\$52,633
Annual Net Operating Income		\$22,557
Retail/Services		
Revenues and Expenses (d)		
Monthly Rent - Triple Net	per NSF	\$43
Operating Expenses	% of Gross	10%
Vacancy Rate	% of Gross	3%
Estimates		
Net Square Footage		95,000
Annual Gross Revenues		\$4,085,000
Operating Expenses		(\$408,500)
Vacancy Rate		(\$122,550)
Annual Net Operating Income		\$3,553,950
Office/R&D		
Revenues and Expenses (d)		
Monthly Rent - Gross	per NSF	\$65
Operating Expenses	% of Gross	28%
Vacancy Rate	% of Gross	5%
Estimates		
Net Square Footage		90,000
Annual Gross Revenues		\$5,850,000
Operating Expenses		(\$1,638,000)
Vacancy Rate		(\$292,500)
Net Operating Income		\$3,919,500

Notes:

(a) RevPAR is a measure of revenue per room, calculated as occupancy percentage times average daily rate.

(b) Expense ratio for limited service and full-service hotels, based on a report from HVS and STR Consulting, July 2015.

(c) Vacancy is already reflected in RevPAR estimate.

(d) Costar Group average rents in the Southern San Mateo County submarket. A premium of 20% is applied to account for newer product.

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

Figure VI-4. Direct and Indirect Cost Inputs

Development Assumptions	Metric	Hotel	Retail/ Restaurants/ Services	Office/R&D/ Medical Office
Direct Costs (a)				
Building & On-Site Improvements (b)	per sq. ft. of GBA	\$200	\$130	\$200
Parking Costs - Podium	per space	\$25,000	\$25,000	\$25,000
Parking Costs - Surface	per space	\$2,500	\$2,500	\$2,500
Indirect Costs (c)				
A&E & Consulting	% of Direct Costs	8%	8%	8%
Tenant Improvements	per NSF	N/A	\$30	\$40
Permits & Fees (d)	total	vary by city	vary by city	vary by city
Taxes, Insurance, Legal & Accounting	% of Direct Costs	3%	3%	3%
Financing Costs	% of Direct Costs	6%	6%	6%
Developer Overhead & Fee	% of Direct Costs	9%	9%	9%
Contingency	% of Indirect Costs	5%	5%	5%

Notes:

- (a) Review of pro formas for similar projects in San Mateo County; RS Means, 2014.
- (b) Hotel costs include Furniture, Fixtures & Equipment (FF&E).
- (c) Indirect costs (except permits and fees) based on review of pro formas for similar projects in Bay Area.
- (d) Permits & Fee provided by County staff.

Sources: Project pro formas; RS Means, 2014; HVS Consulting and Smith Travel Research, 2014; City staff; Strategic Economics, 2015.

Figure VI-5. Recent Commercial Vacant Land Transactions in San Mateo County

Property	City	Site Area	Sale Price/ Appraised Value	Sale Price/ SF	Sale Date
Central San Mateo County					
480 East 4th Ave	San Mateo	50,573	\$5,100,000	\$101	2013
1804 Leslie Street	San Mateo	13,939	\$1,000,000	\$72	2011
900 El Camino Real	Belmont	8,400	\$655,000	\$78	2010
Average		24,304	\$2,251,667	\$84	
Northern San Mateo County					
480 El Camino Real	Millbrae	5,663	\$1,100,000	\$194	On Market
1001-1015 E. Market Street	Daly City	37,897	\$2,250,000	\$59	On Market
6800 Mission Street	Daly City	17,424	\$1,350,000	\$77	2012
7255 Mission Street	Daly City	20,038	\$1,225,000	\$61	2012
Average		20,256	1,481,250	\$98	
Southern San Mateo County					
3264 Haven Ave	Redwood City	27,000	\$3,179,000	\$118	On Market
1706 El Camino Real	Menlo Park	27,007	\$2,200,000	\$81	2011
1300 El Camino Real	Menlo Park	145,490	\$24,500,000	\$168	2012
Average		27,004	\$2,689,500	\$122	

Sources: Property appraisals; Loopnet, 2015; Vernazza Wolfe Associates, Inc. and Strategic Economics, 2015.

Figure VI-6. Feasibility Thresholds for Return on Cost

Prototype	Capitalization Rates	Selected Threshold for Return on Cost
Hotel (a)	6.75% - 7.25%	7.0% - 7.25%
Retail/ Restaurants/ Services (b)	6.21% - 7.05%	6.75% - 7.0%
Office/ R&D/ Medical Office(c)	5.88% - 6.71%	6.75% - 7.0%

Notes:

(a) HVS Consulting, January 2015. Cap rate data was only available at the national level. However, the Bay Area market generally outperforms the rest of the country, so this estimate is likely lower than cap rates for San Mateo County.

(b) PWC Real Estate Investor Survey, National Retail Market, 4th Quarter 2014. Cap rates are lower for regional malls and power centers (under 7%) than for strip shopping centers. The feasibility threshold is set at the higher end of the range to represent smaller retail centers rather than large regional malls.

(c) PWC Real Estate Investor Survey, San Francisco Office Market, 4th Quarter 2014. Because capitalization rates for office may be peaking in the Bay Area market, and R&D and medical office uses have higher cap rates, the financial analysis set the threshold at a higher rate.

Sources: HVS Consulting, January 2015; PWC Real Estate Investor Survey, 4Q2014; Vernazza Wolfe Associates, Inc. and Strategic Economics, 2015.

RESULTS

Hotel

The financial analysis shows that without any commercial linkage fees, the hotel prototype is financially feasible (see Figure VI-7). The annual net operating income is approximately \$3 million (\$22,557 per room). The total development costs, including land, direct and indirect costs total about \$41 million. The net operating income divided by total development costs yields a return on costs of 7.4 percent without the linkage fee. The minimum return on cost required for financial feasibility is 7.0 percent. When the existing BMR In Lieu Fee of \$8.76 per square foot is added to development costs, the calculated return on costs is 7.2 percent. For the other fee scenarios, the results are as follows:

- The maximum fee level (\$154 per square foot) increases total development costs to \$56.1 million. The maximum fee accounts for 27 percent of total development costs. This fee scenario generates a calculated return on cost of 5.4 percent, which is an insufficient return on cost to attract development.
- Fee scenario 2, a lower nexus fee of \$15 per square foot, is equivalent to 3.56 percent of development costs and generates a potential return on costs of 7.1 percent. The project is financially feasible with this return on cost.
- Scenario 3, a fee of \$10 per square foot, would account for 2.4 percent of development costs. At this fee level, the return on cost is estimated at 7.2 percent, which is also financially feasible.
- Scenario 4 is a fee of \$5 per square foot. This fee is 1.21 percent of the project's total development costs. The return on costs is estimated at 7.3 percent, which is also financially feasible.

Retail/ Restaurant/Services

The feasibility analysis indicates that at current market rents, without the addition of new linkage fees, new retail projects would obtain an annual net operating income of approximately \$3.6 million, with a total development cost of \$57.3 million. The net operating income divided by total cost results in a return on cost estimate of 6.2 percent (see Figure VI-7).

A retail prototype that provides this return on cost is not financially feasible in today's market, which would require a return of at least 6.75 percent. However in Menlo Park, most new retail development is likely to be incorporated into a mixed-use project, and would have stronger financial feasibility results, because it would share land costs with the residential or office component. Furthermore, with increased rental rates or reductions in land or construction costs, it is possible that the single-use retail prototype could be feasible in the near future.

To understand the financial burden of the fee scenarios on overall development costs, the pro forma analysis measures the fees as a percent of total development costs. The financial feasibility results for the retail/restaurants/services prototype are as follows:

- Scenario 1, the maximum linkage fee (\$265 per square foot) reduces the return on cost to 4.2 percent. The maximum fee accounts for almost one-third of total development costs.
- Scenario 2 (\$15 per square foot) would correspond to 2.6 percent of development costs. At this fee level, the retail/restaurant/services prototype generates a return on costs of 6.0 percent.
- Scenario 3, a nexus fee of \$10 per square foot, would be equivalent to 1.7 percent of total development costs. The calculated return on cost is estimated at 6.1 percent. While this is still under the feasibility threshold with today's rental rates, given that the current retail vacancy rate is under five percent, it is likely that the retail market will see growth in rental rates over the short term. With a modest increase in rental rates, a new development project with a linkage fee of \$10 per square foot or less could be financially feasible in the near future.
- Scenario 4, a fee of \$5 per square foot, accounts for less than one percent of total development costs. The return on cost with this linkage fee is estimated at 6.15 percent. For the reasons listed above, it is likely that given the strength of the retail market that a new development project with a linkage fee of \$5 per square foot or less could be financially feasible in the near future.

Office/R&D/Medical Office

Under a base scenario with no commercial linkage fees on office/R&D/medical office development, a prototypical project generates an estimated net operating income of \$3.9 million, with total development costs estimated at \$47.3 million. The net operating income divided by the total development costs results in an estimated return on cost of 8.29 percent. A project that provides this return on cost would be financially attractive, given that the minimum expected return for this product type is between 6.75 and 7.0 percent (see Figure VI -7). When the City's existing BMR In Lieu fee on office/ R&D/ medical office development is applied, the return on cost is still very healthy at over eight percent.

For other fee scenarios, the feasibility analysis yields the following results:

- Scenario 1, a fee set at the maximum level of \$255, would account for over one third of total development costs for the office/R&D/medical office prototype. The return on cost is estimated at 5.4 percent, which would not be financially feasible.

- Scenario 2, a fee level of \$50 per square foot, would amount to 9.6 percent of total development costs. The calculated return on cost is 7.5 percent, which is financially feasible.
- Scenario 3, a fee level of \$35 per square foot, is equivalent to 6.9 percent of total project development costs. Under this scenario, the office/R&D/medical office project generates a return on cost of 7.7 percent, which is financially feasible.
- The fee scenario 4 of \$25 per square foot would be about five percent of total project costs. At this fee level, the prototype is financially feasible, with an estimated return on costs of almost 7.9 percent.

Figure VI-7. Pro Forma Analysis Results

	Hotel		Retail/Restaurants/ Services		Office/R&D/Medical Office	
	per Room	Total	per SF of GBA	Total	per SF of GBA	Total
Development Costs (a)						
Land	\$95,668	\$12,723,864	\$325	\$32,500,000	\$102	\$10,187,500
Direct Costs						
Building & On-Site Improvements	\$150,376	\$20,000,000	\$130	\$13,000,000	\$200	\$20,000,000
Parking	\$9,750	\$1,296,750	\$33	\$3,250,000	\$55	\$5,475,000
Total Direct Costs	\$160,126	\$21,296,750	\$163	\$16,250,000	\$255	\$25,475,000
Indirect Costs						
A&E & Consulting	\$12,810	\$1,703,740	\$13	\$1,300,000	\$20	\$2,038,000
Tenant Improvements			\$29	\$2,850,000	\$36	\$3,600,000
FF&E (b)	\$0	\$0				
Permits & Fees (Excl. BMR In Lieu Fee) (c)	\$6,785	\$902,410	\$12	\$1,165,979	\$10	\$986,716
Taxes, Insurance, Legal & Accounting	\$4,804	\$638,903	\$5	\$487,500	\$8	\$764,250
Financing Costs	\$9,608	\$1,277,805	\$10	\$975,000	\$15	\$1,528,500
Developer Overhead & fee	\$13,611	\$1,810,224	\$14	\$1,381,250	\$22	\$2,165,375
Contingency	\$2,381	\$316,654	\$4	\$407,986	\$6	\$554,142
Total Indirect Costs	\$49,998	\$6,649,735	\$86	\$8,567,715	\$116	\$11,636,983
Total Development Costs (TDC) without Nexus Fees		\$40,670,348		\$57,317,715		\$47,299,483
		TDC incl.		TDC incl.		TDC incl.
TDC with Nexus Fees by Fee Scenario	Linkage Fee/SF	Linkage Impact Fee	Linkage Fee/SF	Linkage Impact Fee	Linkage Fee/SF	Linkage Impact Fee
No Fee	\$0.00	\$40,670,348	\$0.00	\$57,317,715	\$0.00	\$47,299,483
Existing BMR In Lieu Fee	\$8.76	\$41,546,348	\$8.76	\$58,193,715	\$16.15	\$48,914,483
Scenario 1: Maximum Fee	\$154.11	\$56,081,510	\$264.98	\$83,815,535	\$255.38	\$72,837,936
Scenario 2	\$15.00	\$42,170,348	\$15.00	\$58,817,715	\$50.00	\$52,299,483
Scenario 3	\$10.00	\$41,670,348	\$10.00	\$58,317,715	\$35.00	\$50,799,483
Scenario 4	\$5.00	\$41,170,348	\$5.00	\$57,817,715	\$25.00	\$49,799,483
Revenues	per Room	Total	per SF of GBA	Total	per SF of GBA	Total
Annual Net Operating Income (d)	\$22,557	\$3,000,081	\$36	\$3,553,950	\$39	\$3,919,500
Return on Cost by Fee	Nexus Fee per SF	Return on Costs	Nexus Fee per SF	Return on Costs	Nexus Fee per SF	Return on Costs
No Fee	\$0.00	7.38%	\$0.00	6.20%	\$0.00	8.29%
Existing BMR In Lieu Fee	\$8.76	7.22%	\$8.76	6.11%	\$16.15	8.01%
Scenario 1: Maximum Fee	\$154.11	5.35%	\$264.98	4.24%	\$255.38	5.38%
Scenario 2	\$15.00	7.11%	\$15.00	6.04%	\$50.00	7.49%
Scenario 3	\$10.00	7.20%	\$10.00	6.09%	\$35.00	7.72%
Scenario 4	\$5.00	7.29%	\$5.00	6.15%	\$25.00	7.87%
Fees as % of TDC	Nexus Fee per SF	Nexus Fee as % of TDC	Nexus Fee per SF	Nexus Fee as % of TDC	Nexus Fee per SF	Nexus Fee as % of TDC
No Fee	\$0.00	0.00%	\$0.00	0.00%	\$0.00	0.00%
Existing BMR In Lieu Fee	\$8.76	2.11%	\$8.76	1.51%	\$16.15	3.30%
Scenario 1: Maximum Fee	\$154.11	27.48%	\$264.98	31.61%	\$255.38	35.06%
Scenario 2	\$15.00	3.56%	\$15.00	2.55%	\$50.00	9.56%
Scenario 3	\$10.00	2.40%	\$10.00	1.71%	\$35.00	6.89%
Scenario 4	\$5.00	1.21%	\$5.00	0.86%	\$25.00	5.02%
Return on Cost - Threshold for Feasibility		7.0-7.25%		6.75-7.0%		6.75-7.0%

Notes:

(a) See Figure VI-4.

(b) Furniture Fixtures & Equipment for hotel is included in the direct costs.

(c) Permit & fee calculations provided by City Staff. These are estimates for the prototypes created in this analysis; specific development projects may have different results.

(d) See Figure VI-3.

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

POLICY CONSIDERATIONS

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

- How much development fees would increase with a new commercial linkage fee;
- How a commercial linkage fee in Menlo Park would compare with those in neighboring jurisdictions;
- What options exist for establishing alternatives to the payment of fees; and
- How a commercial linkage fee fits into Menlo Park's overall housing strategy

Existing City Fees on Commercial Development

In addition to its existing BMR in lieu fee, the City of Menlo Park has other permits and fees on new development. The City may wish to consider the amount that total fees would increase with an updated commercial linkage fee. Based on the current schedule of fees in Menlo Park, existing fees (including the existing BMR in lieu fees) for the commercial prototypes are estimated to be \$18 per square foot for the hotel prototype, \$20 per square foot for the retail/restaurants/services prototype, and \$26 per square foot for the office/R&D/medical office prototype. If the maximum linkage fees were adopted, the total development fees and permits would be \$163 per square foot for hotel, \$277 per square foot for retail, and \$265 for office, as shown in Figure VI-8.

Figure VI-8. Existing City Fees on Commercial Development by Prototype

	Hotel	Retail/ Restaurants/ Services	Office/R&D/ Medical Office
Existing Fees/ Permits per SF (excl. linkage fee)	\$9	\$12	\$10
Current Linkage Fee	\$9	\$9	\$16
Total Existing Fees Per SF	\$18	\$20	\$26
Fee Scenario 1 (Maximum Fees)			
Nexus Fee Per SF	\$154	\$265	\$255
Combined Fees Per SF	\$163	\$277	\$265
Fee Scenario 2			
Nexus Fee Per SF	\$15	\$15	\$50
Combined Fees Per SF	\$24	\$27	\$60
Fee Scenario 3			
Nexus Fee Per SF	\$10	\$10	\$35
Combined Fees Per SF	\$19	\$22	\$45
Fee Scenario 4			
Nexus Fee Per SF	\$5	\$5	\$25
Combined Fees Per SF	\$14	\$17	\$35

Sources: City of Menlo Park, 2014; Vernazza Wolfe Associates, Inc; Strategic Economics, 2015.

Comparison with Fees Charged in Other Jurisdictions

Figure VI-9 provides comparative information for Menlo Park and other jurisdictions in San Mateo County and Santa Clara County that charge commercial linkage fees.¹⁹ At present, Menlo Park has fees of \$8.76 per square foot for hotel and retail/restaurant/services development, and \$16.15 per square foot for office/R&D/medical office development. Menlo Park's existing fees are similar to the linkage fees adopted in Sunnyvale, San Francisco and Cupertino, which range from \$7.5 to \$24 per square foot, depending on the land use. In most cases, cities have adopted higher fee levels for office/ R&D/ medical office uses than for retail and hotel uses. For example, in Cupertino, the commercial linkage fee for hotel and retail/restaurants/ services is \$10 per square foot, compared to \$20 per square foot for office/ R&D/ medical office uses. The maximum fees for Menlo Park are significantly higher than adopted linkage fees in the region. The lower fee scenarios (Scenarios 2, 3, and 4) are similar to those in place in nearby communities.

¹⁹ It is important to note that Palo Alto is currently conducting a new nexus study that may result in revised commercial linkage fees.

Figure VI-9. Comparison to Linkage Fees in Neighboring Cities

	Hotel	Retail/ Restaurant/ Services	Office/R&D/ Medical Office	Date Fee Was Adopted
Linkage Fee Scenarios (per SF)				
Existing Linkage Fee	\$9	\$9	\$16	2000
Scenario 1 - Maximum Fee	\$154	\$265	\$255	N/A
Scenario 2	\$15	\$15	\$50	N/A
Scenario 3	\$10	\$10	\$35	N/A
Scenario 4	\$5	\$5	\$25	N/A
Fees in Nearby Cities				
Cupertino	\$10	\$10	\$20	2015
Mountain View (a)	\$2.50	\$2.50	\$25	2015
Palo Alto (b)	\$19	\$19	\$19	2014
San Francisco (c)	\$18	\$22	\$16-\$24	2015
Sunnyvale	\$7.50	\$7.50	\$15 (d)	N/A

Notes:

(a) New gross floor area under 25,000 SF pays 50 percent of full fee.

(b) Palo Alto has a single fee of \$19.31 per SF for commercial and industrial projects and for any new gross square footage. A new nexus study is currently underway that may result in an updated fee.

(c) The fee for R&D is \$16.01 and the fee for office is \$24.03. The fee for a small enterprise is \$18.89.

(d) The fee on the first 25,000 SF is discounted by 50 percent.

Sources: City staff and websites; Nonprofit Housing Association of Northern California, 2015; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

Other cities in the Bay Area outside of San Mateo and Santa Clara counties also have commercial linkage fees that can be compared to the potential fee scenarios for Menlo Park. A summary of some of these existing fees is shown in Figure VI-10, based on the most current information available. The fee amounts vary significantly by jurisdiction. San Francisco has the highest impact fees on commercial development, ranging from \$16 for R&D space to \$24 for office space.

Figure VI-10. Existing Linkage Fees in Bay Area Cities

City	Commercial Development Subject to Fees	Fee Amount
Walnut Creek	All development commercially classified i.e. R&D, for-profit medical offices/hospitals, etc.	\$5.00 per SF
Oakland	Office and Warehouse/Distribution	\$5.24 per SF used for office of warehouse /distribution needs beyond 25,000 SF
San Francisco	Entertainment, Hotel, Office, R&D, Retail, Integrated PDR, Small Enterprise Workspace	Based on type of space and additional gross SF past 25,000 Entertainment/retail: \$22.42 per SF Office: \$24.03 per SF Integrated PDR/small enterprise: \$18.89 per SF Hotel: \$17.99 per SF R&D: \$16.01 per SF
Dublin	Industrial, Office, R&D, Retail, Services & Accommodations	Industrial: \$.048 per SF Office: \$1.24 per SF R&D: \$0.81 per SF Retail: \$1.00 per SF Services & Acc.: \$0.42 per SF * Buildings less than 20,000 SF are exempt.
Pleasanton	All commercial office or industrial development projects	\$2.87 per SF Adjusted annually based on CPI
Alameda	Retail, Office, Warehousing, Manufacturing, Hotel//Motel	Retail: \$2.24 per SF Office: \$4.42 per SF Warehouse & Manufacturing: \$0.77 per SF Hotel/Motel: \$1,108 per room/suite May be adjusted annually based on CPI
Napa	Office, Hotel, Retail, Industrial (Industrial, Warehouse, Wine Production)	Office: \$1.00 per SF Hotel: \$3.00 per SF Retail: \$0.80 per SF Industrial: \$0.50 per SF
San Rafael	Office or R&D, Retail, Restaurant, Personal Service, Manufacturing, Light Industrial, Warehouse, Hotel/Motel	5,000 SF or more to provide affordable housing units or pay a fee * \$254,599 per unit Office & R&D: 0.03 units Retail, Restaurant or Personal Service: 0.0225 units Manufacturing or Light Industrial: 0.01625 units Warehouse: 0.00875 units Hotel/Motel: 0.0075 units

Figure VI-12. Summary of Existing Linkage Fees in Other Bay Area Cities (Continued)

City	Commercial Development Subject to Fees	Fee Amount
Petaluma	Commercial, Retail, Industrial	Commercial: \$2.14 per SF Retail: \$3.69 per SF Industrial: \$2.21 per SF
Emeryville	Any development of non residential uses for which a discretionary permit or building permit is required	\$4.00 per SF
Berkeley	Developments in non-residential and R-4 Zones, except in South Berkeley IX Target Area, over 7,500 SF	Office/Retail/Restaurant/Hotel/Lodging/R&D: \$4.50 per SF Industrial/Manufacturing/Warehouse/Storage: \$2.25 per sq. ft

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

Options for Establishing Alternatives to Payment of Fees

When Menlo Park updates its ordinance governing commercial linkage fees, it can provide options that developers may choose instead of the payment of fees. For example, one option would be for the developer to provide affordable housing units on- or off-site or to provide a building site for affordable housing. This flexibility is provided to allow development of creative solutions that may provide more affordable housing than would be created by payment of fees. Regardless of whether a commercial developer elects to provide affordable housing or provide a building site, it is necessary to calculate how these alternatives would compare with any fees established by the City.

The first step in establishing options for a specific development project would be for the City to calculate the total fees that are owed by the new development. Then, establishing an alternative compliance method will depend on what is offered by the developer. For example, if the developer offers to provide land for an affordable housing site, a recent site appraisal generally suffices to place a value on a contribution of land. This land value can then be compared with the fees that the developer would normally pay. If, instead of paying a fee, the developer elects to provide affordable housing units, it is also possible to estimate the value of these units by multiplying the number of affordable units to be provided by a current affordability gap estimate per unit. The value of alternative compliance measures needs to be calculated at the time a developer requests one.

Benefit to the City of Menlo Park's Overall Affordable Housing Strategy

The City of Menlo Park adopted its Below Market Rate Housing Ordinance in 1988, which set up an inclusionary housing program for residential development. The inclusionary housing program requires that all residential developments of five or more units provide below-market rate units. Since 2009, due to the Palmer court decision, the City has not enforced BMR requirements on rental residential projects; the requirement only applies to for-sale housing development projects. Projects with 20 units or less are required to provide at least 10 percent of the units at BMR prices, and projects with more than 20 units are required to provide 15 percent of units at BMR prices. In some cases, the payment of in lieu fees is permitted.

In addition to the inclusionary housing program, the ordinance also enabled the establishment of a commercial linkage fee on commercial developments of 10,000 square feet or more (churches, schools, and public facilities are exempt). The fees for the upcoming 2015-2016 fiscal year are approximately \$16 per square foot for office and R&D uses, and \$8 per square foot for retail, hotel, and other commercial uses.

The revenues collected from the commercial linkage fee provide an important source of local funding for affordable housing; however, fee revenues do not generally cover the entire funding gap encountered by sponsors of new affordable housing. Additional funding is almost always required.

Currently, affordable housing in the City of Menlo Park is funded through the use of a variety of sources, including funding provided by the City and San Mateo County, as well as the federal government, e.g., CDBG and HOME. Equity required for affordable housing development is also provided directly by developers and indirectly raised through the allocation and sale of Low Income Housing Tax Credits. Also, a portion of permanent financing comes from conventional loans obtained from private lending institutions.

Commercial linkage fee revenues would continue to be deposited into the City's Housing Fund to support affordable housing for extremely low, very low, low and moderate income households. The City's Housing. The existence of a local revenue source such as linkage fees can also make certain projects more competitive for outside funding. It should be noted that revenues from a commercial linkage fee need to be spent on

housing that benefits the workforce since the funds stem from affordable housing impacts related to new employment.

Potential for Overlap between Residential and Commercial Fees

The Consultant Team has prepared a housing impact fee nexus study simultaneous to this commercial linkage fee nexus study. The City has the option of adopting housing impact fee as well as the commercial linkage fee considered in this report. One issue that may arise if a city considers the adoption of both fees is whether there is any overlap between the two impact fees, resulting in potential “double-counting” of impacts.

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

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

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

There is potential that some jobs could be counted in both analyses, and that the two programs may overlap in mitigating the affordable housing demand from the same worker households. Each of the proposed fees is required to mitigate no more than 100 percent of the demand for affordable units by new worker households. In order to reduce the potential for overlap between the two programs, it is advisable to set both the commercial linkage fees and housing impact fees at below 100 percent of the nexus-based maximum. In this way, when combined, the programs would mitigate less than 100 percent of the impact even if there were overlap in the jobs counted in the two nexus analyses.

Administrative Issues

Similar to any impact fee, the fee should be adjusted annually for inflation and increases in construction costs. Adjustments are also needed due to possible changes in the housing affordability gap. However, the connection between new residential construction and growth in employment derived from employment densities is unlikely to change in the short run.

It is advisable that the City continue adjusting its commercial linkage fee annually by using an annual adjustment mechanism. An adjustment mechanism updates the fees to compensate for inflation in development costs. To simplify annual adjustments, it is recommended that the City select a cost index that is routinely published. While there is no index that tracks changes in the City of Menlo Park's development costs, including land, there are a few other options to consider.

- The first option is the Consumer Price Index (Shelter Only). The shelter component of the index covers costs for rent of primary residence, lodging away from home, owner's equivalent rent of primary residence, and household insurance. Of the total shelter index, costs associated with the owner's equivalent rent of primary residence constitute 70 percent of total costs entered into the index.
- A second option to adjust the fee for annual inflation is the construction cost index published in the Engineering News Record (ENR). This index is routinely used to update other types of impact fees. Cost index information for the San Francisco area, the closest geographical area to Menlo Park, is available on an annual basis. While this index measures inflation in construction costs, it does not incorporate changes in land costs and public fees charged on new development.

While both indices measure changes in housing costs, both understate the magnitude of inflation for the reasons presented above. However, since these indices are readily available and relatively simple to use, it is recommended, that City use these indices for annual adjustments. It is further recommended that the City base its annual adjustment mechanism on the higher of the two indices (CPI or ENR), using a five-year moving average as the inflation factor.

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

VII. GLOSSARY OF TERMS AND ACRONYMS

GLOSSARY OF TERMS

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

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

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

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

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

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

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

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

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

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

For owners, costs include mortgage payments, mortgage insurance, property taxes, property insurance, and homeowner association dues.²⁰ The difference between these housing expenses and affordable ownership costs is the housing affordability gap for owners. This calculation assumes that 35% of income is paid for housing costs.

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

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

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

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

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

Nexus Study: In order to adopt a residential housing impact fee or a commercial linkage fee, a nexus study is required. A nexus requires local agencies proposing a fee on a development project to identify the purpose of the fee, the use of the fee, and to determine that there is “a reasonable relationship between the fee’s use and the type of development project on which the fee is imposed.” A Nexus Study establishes and quantifies a causal link or “nexus” between new residential and commercial development and the need for additional housing affordable to new employees.

Non-Residential Development Housing Impact Fee (or Linkage Fee): A fee or charge imposed on commercial developers to pay for a development’s impact on the need for affordable housing. The fee is

²⁰ Mortgage terms for first-time homebuyers typically allow down payment of five percent; these terms require private mortgage insurance.

based on projected household incomes of new employees that will work in newly created space. The fee varies according to the type of property use.

Palmer Case: This civil suit affects rental housing only. It affirmed that the Costa Hawkins Rental Act, passed in 1995 by the California State Legislature, applies to inclusionary rental units. The implication of this finding is that cities or counties cannot require rental property owners to rent inclusionary units that become vacant at below market rents, unless the developer accepted financial assistance (including fee waivers) or received other incentives that lowered development costs.

Patterson Case: This civil suit affects fees for both rental and ownership housing. This decision addressed the way in which in-lieu housing fees were calculated in the City of Patterson, which had been somewhat arbitrary. The Court ruled, that, as long as an in-lieu fee is based on a formula related to the cost of developing inclusionary units, a locality can continue to operate an inclusionary program for for-sale housing that requires either units or payment of an in-lieu fee.

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

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

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

DEFINITION OF ACRONYMS

AMI:	Area Median Income
CBIA:	California Building Industry Association
EDD:	State of California Employment Development Department
FAR:	Floor-area-ratio
FF&E:	Furniture, Fixtures, and Equipment
GBA:	Gross Building Area
HCD:	Department of Housing and Community Development (State of California)
NAICS:	North American Industry Classification System
NSF:	Net Square Feet
QCEW:	Quarterly Census of Employment and Wages
R&D:	Research and development
SF:	Square Feet

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DRAFT REPORT
Residential Impact Fee
Nexus Study

July 2016

prepared for:
City of Menlo Park



VWA

Vernazza Wolfe Associates, Inc.

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I. EXECUTIVE SUMMARY

INTRODUCTION

This report is part of the 21 Elements multi-city nexus study, a collaborative effort to mitigate the impacts of new development on the demand for affordable housing in San Mateo County. In February 2014, 22 jurisdictions in the county partnered to hire Strategic Economics and Vernazza Wolfe Associates, Inc. to develop nexus studies for commercial linkage fees and residential impact fees.¹ The project was initiated by 21 Elements, a countywide collaboration among all the cities in San Mateo County on housing issues. The preparation of these fee studies may result in the adoption of new impact fees on either residential, commercial or both types of developments. This draft report describes the methodology, data sources, and analytical steps required for the residential nexus analysis for the City of Menlo Park.

BACKGROUND

The City of Menlo Park currently has an inclusionary housing program, including an in-lieu fee on for-sale housing units, as well as a commercial linkage fee in place. Menlo Park is now potentially interested in adopting an affordable housing impact fee on new residential development. The purpose of this fee would be to mitigate the impact of an increase in affordable housing demand from new worker households associated with new market-rate residential units. When a city or county adopts a development impact fee, it must establish a reasonable relationship or connection between the development project and the fee that is charged. Studies undertaken to demonstrate this connection are called nexus studies. This nexus study quantifies the connection between the development of market rate housing and the demand for affordable housing units. This project also includes an update to the City's commercial linkage fee, the results of which are provided in a separate report.

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

REPORT ORGANIZATION

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

¹ Participating jurisdictions include: Atherton, Belmont, Brisbane, Burlingame, Colma, Daly City, East Palo Alto, Foster City, Half Moon Bay, Hillsborough, Menlo Park, Millbrae, Pacifica, Portola Valley, Redwood City, San Bruno, San Carlos, San Mateo City, San Mateo County, South San Francisco, and Woodside.

NEXUS FEE IMPLEMENTATION OPTIONS

Menlo Park has the option of implementing a new impact fee on single-family detached, single-family attached, rental and condominium housing or continuing its existing below market rate (BMR) programs for rental and for-sale housing consistent with recent court decisions.² The maximum single-family detached impact fee per unit is \$197,963 (\$66 per square foot), the maximum townhouse fee per unit is \$112,387 (\$66 per square foot), the maximum condominium impact fee per unit is \$81,203 (\$45 per square foot), and the maximum apartment fee per unit is \$72,766 (\$79 per square foot). If Menlo Park elects to adopt an impact fee on single-family detached housing, the recommended fee range is between \$25 and \$50 per square foot. For single-family attached housing, if the City decides to adopt an impact fee, the recommended range is between \$25 and \$50 per square foot. In the case of a condominium housing impact fee, the recommended fee range is between \$25 and \$35 per square foot. If the City proceeds with a rental housing impact fee, the recommended fee range is between \$25 and \$50 per square foot. These recommendations are based on the findings of the financial feasibility analysis, a comparison of fees in neighboring jurisdictions, and the potential for overlap between the residential impact fee and the commercial linkage fee. The maximum and recommended fee levels are shown in Figure I-1.

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

Prototype	Maximum Justified Fee per Unit	Maximum Justified Fee per SF	Recommended Fee per Unit	Recommended Fee per SF
Single-Family Detached	\$197,963	\$66	\$75,000 - \$150,000	\$25 - \$50
Single-Family Attached	\$112,387	\$66	\$42,500 - \$85,000	\$25 - \$50
Condominium	\$81,203	\$45	\$45,000 - \$63,000	\$25 - \$35
Apartments	\$72,766	\$79	\$22,900 - \$45,800	\$25 - \$50

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

NEXUS ANALYSIS RESULTS

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

Prototypes

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

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

² The City can operate its inclusionary program for rental housing, assuming that it provides cost off-sets and other incentives that allow its program to be consistent with the Palmer case decision.

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

Prototype	Unit Type	Number of Units	Net Area (SF)	Unit Sales Price/ Monthly Rent	Price or Rent per SF
Single-Family Detached (For-Sale)					
Wood siding wood frame	4 BD/4 BA	10	3,000	\$2,600,000	\$867
6 units per acre					
Attached garage					
Net Residential Area (Net SF)			30,000		
Single-Family Attached (For-Sale)					
Type V wood frame	3 BD/3 BA	20	1,700	\$1,428,000	\$840
13 units per acre					
Tuck-under podium parking					
Net Residential Area			34,000		
Condominiums (For-Sale)					
Type V wood frame	4 BD/3 BA	150	1,800	\$980,000	\$544
35 units per acre					
Subterranean parking					
Net Residential Area (Net SF)			270,000		
Apartments (Rental)					
Type V wood frame	Studio	9	600	\$2,700	\$4.50
43 units per acre	1 BD/1 to 2 BA	79	800	\$3,200	\$4.00
Podium parking	2 BD/1 to 2 BA	59	1,100	\$4,200	\$3.82
	3 BD/2 BA	3	1,300	\$4,000	\$3.08
Net Residential Area			137,400		
Average Net SF per Unit			916		

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

Household Income

The next step is to calculate the annual household incomes of the buyers of new for-sale condominium units and the renters occupying new apartment units by using the sales prices and rents shown in Figure I-2. Threshold incomes needed to purchase or rent units are based on standards used in the housing industry.³ Figure I-3 shows the estimated household income of buyers of single-family detached units, Figure I-4 does so for buyers of single-family attached units, Figure I-5 summarizes the estimated household incomes of condominium buyers, and Figure I-6 presents the calculated household incomes of apartment renters. Household incomes are a key input to the IMPLAN3 economic impact analysis described in Section IV of this report.

Figure I-3. Estimated Annual Household Incomes of Buyers of Single-Family Detached Units

Single-Family Detached Unit Type	
4 BR/4 BA	
Number of Households	10
Sales Price	\$2,600,000
Household Income	\$463,706

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

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

Figure I-4. Estimated Annual Household Incomes of Buyers of Single-Family Attached Units

Single-Family Attached Unit Type	
3 BR/3 BA	
Number of Households	20
Sales Price	\$1,428,000
Household Income	\$263,253

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

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

Condominium Unit Type	
4 BR/3 BA	
Number of Households	150
Sales Price	\$980,000
Household Income	\$190,210

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

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

	Apartment Unit Type			
	Studio	1 BR/ 1 to 2 BA	2 BR/ 1 to 2 BA	3 BR/ 2 BA
Number of Households	9	79	59	3
Monthly Rent	\$2,700	\$3,200	\$4,200	\$4,000
Household Income	\$108,000	\$128,000	\$168,000	\$160,000

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

Economic Impact Analysis (IMPLAN)

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

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

Demand for Affordable Housing

Recognizing that many households have more than one wage-earner, the next step is to calculate the number of worker households by dividing the total number of new workers by the average number of wage-earners per household in Menlo Park. However, not all of the worker households require affordable housing. To estimate the affordable housing demand, the average annual household income of worker households is sorted into income categories that are consistent with area median income (AMI) levels defined for San Mateo County and is specific to the average household size in the jurisdiction. Figure I-7 indicates that of the 11 new worker households associated with a single-family

detached development, there are 9 households that need affordable housing. The comparable figures for single-family attached, condominium and apartment developments are, respectively, about 10, 53, and 47 households.

Figure I-7. New Worker Households by Income Group for Single-Family Detached, Single-Family Attached, Condominium and Apartment Prototypes

Worker Households by Income Category	Single-Family Detached	Single-Family Attached	Condominium	Apartment
Households Requiring Affordable Housing				
Very Low Income (<=50% AMI)	2.7	3.1	16.8	15.5
Low Income (51-80% AMI)	2.8	3.1	17.0	15.1
Moderate Income (81-120% AMI)	3.1	3.5	19.2	16.7
Subtotal Very Low, Low, Moderate Income	8.6	9.8	53.0	47.3
Above Moderate Income Households	2.1	2.4	13.2	11.7
Total All Worker Households	10.8	12.2	66.2	59.0

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

Affordability Gap

The next step is to quantify the total gap between what very low, low, and moderate-income households can afford to pay and the cost of building new, modest rental and for-sale housing units. This housing “affordability gap” number is then multiplied by the number of income-qualified households in each income category for single-family detached, single-family attached, condominium and apartment developments separately in order to estimate the total housing affordability gap for each prototype. Figures I-8 through I-11 present these totals for single-family detached, single-family attached, condominiums and apartments.

Figure I-8. Total Affordability Gap for Single-Family Detached

Income Level	Households Requiring Affordable Housing	Average Affordability Gap per Household	Affordability Gap for All Households
Very Low-Income (<50% AMI)	2.7	\$280,783	\$768,368
Low-Income (50-80% AMI)	2.8	\$240,477	\$663,661
Moderate-Income (80-120% AMI)	3.1	\$175,558	\$547,599
Total	8.6		\$1,979,628

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

Figure I-9. Total Affordability Gap for Single-Family Attached

Income Level	Households Requiring Affordable Housing	Average Affordability Gap per Household	Affordability Gap for All Households
Very Low-Income (<50% AMI)	3.1	\$280,783	\$872,429
Low-Income (50-80% AMI)	3.1	\$240,477	\$753,541
Moderate-Income (80-120% AMI)	3.5	\$175,558	\$621,761
Total	9.8		\$2,247,731

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

Figure I-10. Total Affordability Gap for Condominiums

Income Level	Households Requiring Affordable Housing	Average Affordability Gap per Household	Affordability Gap for All Households
Very Low-Income (<50% AMI)	16.8	\$280,783	\$4,727,715
Low-Income (50-80% AMI)	17.0	\$240,477	\$4,083,459
Moderate-Income (80-120% AMI)	19.2	\$175,558	\$3,369,338
Total	53.0		\$12,180,512

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

Figure I-11. Total Affordability Gap for Apartments

Income Level	Households Requiring Affordable Housing	Average Affordability Gap per Household	Affordability Gap for All Households
Very Low-Income (<50% AMI)	15.47	\$280,783	\$4,344,566
Low-Income (50-80% AMI)	15.12	\$240,477	\$3,635,157
Moderate-Income (80-120% AMI)	16.72	\$175,558	\$2,935,222
Total	47.31		\$10,914,945

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

Maximum Nexus-Based Fee

The final step in calculating the maximum housing impact fee by prototype is to divide the total gap at each income level by the number of units in each prototype. This maximum fee amount represents the ceiling on the fee that could be charged to mitigate affordable housing impacts from new residential development. The maximum single-family detached impact fee per unit is \$197,963, the maximum single-family attached fee per unit is \$112,387, the maximum condominium impact fee per unit is \$81,203, and the maximum apartment fee per unit is \$72,766. On a per-unit basis, the fees are highest for single-family detached units. The fees are also calculated on a per-square-foot basis by dividing the unit fee by the average size of the unit. On a per-square-foot basis, the maximum impact fee is \$66 for single-family detached, \$66 for single-family attached, \$45 for condominiums and \$79 for apartments. The per-square-foot fee is highest for apartments because the average unit size for apartments is smaller. Figure I-12 presents the results of this final step.

Figure I-12. Maximum Housing Impact Fee by Prototype

Prototype	Single-Family Detached	Single-Family Attached	Condominiums	Apartments
Total Number of Units	10	20	150	150
Average Unit Size	3,000	1,700	1,800	916
Total Affordability Gap	\$1,979,628	\$2,247,731	\$12,180,512	\$10,914,945
Maximum Fee per Unit	\$197,963	\$112,387	\$81,203	\$72,766
Maximum Fee per SF	\$66	\$66	\$45	\$79

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

POLICY CONSIDERATIONS

There are a number of policy considerations that should be taken into account when Menlo Park considers whether to adopt an affordable housing impact fee on new market-rate residential development to replace its existing inclusionary zoning program. These policy considerations may include factors such as: the likely financial impact of the proposed housing impact fees on development; the additional cost of the new fees on the existing city fee structure; a comparison of the fee scenarios to existing housing impact fees in nearby cities; the role of the fee in the City’s overall strategy for affordable housing implementation; and the potential overlap with a commercial linkage fee. This section provides a discussion of each of these policy questions for Menlo Park.

Comparison to Neighboring Jurisdictions – A comparison of the nexus fee scenarios to current housing impact fees charged in nearby cities is an important element of the policy analysis. This comparison is challenging, because most cities in San Mateo County are participating in this multi-city nexus study, and may decide to adopt new fees or update existing fees. The maximum-justified fee levels for Menlo Park are considerably higher than the affordable housing impact fees that are currently in place in San Mateo County, in most cases. However, San Francisco has adopted fees ranging from \$199,000 to \$522,000 per unit, depending on the unit size, which are significantly higher than the maximum fee levels calculated for Menlo Park. If Menlo Park adopted fees within the recommended fee ranges, its fees would place it at the top end of the range for all unit types when compared to other cities in San Mateo and Santa Clara Counties, as shown in Figure I-13; however, its fees would be somewhat comparable to those charged in some cases in San Carlos, and possibly Sunnyvale’s, depending on sales prices.

Figure I-13. Housing Impact Fees in Neighboring Cities

City	Single-Family Detached	Townhouses	Condominiums	Apartments
Cupertino	\$15	\$16.50	\$20	\$25
Daly City	\$14	\$18	\$22	\$25
East Palo Alto	\$24	\$23	\$23-\$44	\$23
Mountain View	N/A	N/A	N/A	\$17
San Carlos	\$24-44	\$21-\$42	\$21-\$42	\$24-\$44
San Jose	N/A	N/A	N/A	\$17
Sunnyvale	N/A	N/A	N/A	\$17

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

Financial Feasibility – Financial feasibility is just one of several factors to consider in making a decision regarding a potential nexus fee. In order to provide Menlo Park with guidance on how proposed fees could impact development decisions, the Consultant Team conducted a financial feasibility analysis that tested the impact of proposed fee options on developer profit for each prototype. The four fee scenarios were tested at various calculated levels, including the maximum fee level and lower fee levels.

The feasibility analysis showed that establishing a fee at the maximum fee level would not have a negative impact on the financial feasibility of any of the housing prototypes. The financial feasibility results are particularly strong for the single-family detached and single-family attached prototypes, which currently command very high sales prices. The maximum fee levels for for-sale condominiums and rental apartments are marginally feasible under today’s market conditions, generating a residual land value that is above the minimum price for multi-family land in Menlo Park. Slightly lower residential impact fees would increase the financial feasibility of the condominium and apartment prototypes.

Total Development Costs – Currently, the total development costs (including building and onsite improvements, parking, indirect costs, financing costs, and developer profit) are \$241 per net square foot for the single-family detached prototype, \$252 per net square foot for the townhouse prototype, \$385 per net square foot for the condominium prototype and \$365 per net square foot for the apartment prototype. When land costs are added to the project’s development costs, costs increase to between \$2576 and \$361 per net square foot for the single-family detached prototype (depending on the land price of the site), between \$287 and \$372 per net square foot for the townhouse prototype, between \$535 and \$635 per net square foot for the condominium prototype, and between \$515 and \$615 per net square foot for the apartment prototype. The maximum housing impact fees represent 21.5 percent, 20.8 percent, 10.5 percent and 17.8 percent of total development cost of the single-family detached, townhouse, condominium and apartment prototypes, respectively (Figure I-14). A fee of \$30 per square foot represents 11.1 percent, 10.7 percent, and 7.6 percent of total development costs for single-family detached, single-family attached, and apartment units. A \$20 per square foot fee for condominium units represents 4.9 percent of total development costs.

Comparison to Existing City Fees – Menlo Park has existing city permits and fees on new development that would increase with the adoption of a new housing impact fee. The City may wish to consider the amount that total city fees would increase with the addition of a new housing impact fee. Based on the current schedule of fees in Menlo Park, existing fees (excluding the nexus fees) for the residential prototypes are estimated to be \$31 per square foot for single-family detached units (\$91,908 per unit), \$42 per square foot for townhouses (\$71,278 per unit), \$38 per square foot for condominiums (\$68,506 per unit) and \$21 per square foot for rental apartments (\$19,405 per unit).⁴ These fee amounts do not include the BMR in-lieu fees that are currently charged. The maximum residential impact fee would increase city fees by about 200 to 400 percent, depending on the prototype, as shown in Figure I-15. A residential impact fee of \$30 per square foot increases the total city permits and fees to \$61 per square foot for single-family detached units, \$72 per square foot for townhouses, and \$51 per square foot for apartments. A residential impact fee of \$20 per square foot for condominiums would increase total city permits and fees to \$58 per square foot.

⁴ The fee estimates presented above represent the best approximations available from Menlo Park.

Figure I-14: Housing Impact Fee Scenarios as Percent of Total Development Costs

Residential Impact Fee Scenario	Single-Family Detached		Townhouses		Condominiums		Apartments	
	Fee Amount	Fee as % of TDC	Fee Amount	Fee as % of TDC	Fee Amount	Fee as % of TDC	Fee Amount	Fee as % of TDC
No Fee	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%
Scenario 1: Max Fee	\$66	21.48%	\$66	20.77%	\$45	10.47%	\$79	17.80%
Scenario 2	\$50	17.16%	\$50	16.57%	\$35	8.34%	\$50	12.05%
Scenario 3	\$40	14.22%	\$40	13.71%	\$25	6.10%	\$40	9.88%
Scenario 4	\$30	11.06%	\$30	10.65%	\$20	4.94%	\$30	7.60%

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

Figure I-15: Total City Fees and Permits per Square Foot

Fee Scenario	Single-Family Detached Total		Single-Family Attached Total		Condominiums Total		Apartments Total	
	Residential Impact Fee	Permits and Fees	Residential Impact Fee	Permits and Fees	Residential Impact Fee	Permits and Fees	Residential Impact Fee	Permits and Fees
Existing Permits and Fees	\$0	\$31	\$0	\$42	\$0	\$38	\$0	\$21
Scenario 1 (Maximum Fee)	\$66	\$97	\$66	\$108	\$45	\$83	\$79	\$100
Scenario 2	\$50	\$81	\$50	\$92	\$35	\$73	\$50	\$71
Scenario 3	\$40	\$71	\$40	\$82	\$25	\$63	\$40	\$61
Scenario 4	\$30	\$61	\$30	\$72	\$20	\$58	\$30	\$51

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

Comparison to Existing BMR Policy – Menlo Park currently has an inclusionary housing program in place for ownership housing. The City’s BMR Housing Program requires that 10 percent of new units in projects of between 5 and 20 units and 15 percent of new units in projects over 20 units must be affordable for very low, low, and/or moderate income households. While the City’s primary objective is for BMR housing units to be built on-site, it does allow for the payment of an in-lieu fee, which is set at three percent of the sales price of for-sale units. If the City chooses to adopt a residential impact fee, the fee scenarios are equivalent to between 3.5 percent and 8.3 percent of sales price for ownership units.

Use of Fee Revenues – Residential impact fee revenues (and commercial linkage fee revenues) could augment the existing BMR Housing Fund. The existence of additional local revenue sources such as the residential nexus fees can also make certain projects more competitive for outside funding. Fee revenues must be spent on housing that benefits very low, low, and moderate income worker households.

Overlap with Commercial Linkage Fee - In addition to the residential impact fee described in this report, Menlo Park is also considering updating its linkage fees on commercial development. There may be a small share of jobs counted in the residential nexus analysis that are also included in the commercial impact fee analysis. Thus, the two programs may have some overlap in mitigating the affordable housing demand from the same worker households. In order to reduce the potential for overlap between the two programs, it is advisable to set both the commercial linkage fees and housing impact fees at below 100 percent of the nexus-based maximum. In this way, when combined, the programs would mitigate less than 100 percent of the impact even if there were overlap in the jobs counted in the two nexus analyses.

II. INTRODUCTION AND METHODOLOGY

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

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

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

BACKGROUND

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

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

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

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

THE NEXUS CONCEPT

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

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

METHODOLOGY

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

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

Step 1. Define the residential prototypes that represent new market rate housing development.

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

Step 2. Estimate household income of buyers and renters of new market rate units.

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

Step 3. Estimate economic impacts of new buyers and renters using IMPLAN3.

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

Step 4. Estimate the number of new worker households and annual household incomes.

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

Step 5. Estimate the demand for affordable housing from new worker households.

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

Step 6. Estimate the affordability gap of new households requiring affordable housing.

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

Step 7. Estimate nexus-based fees for each prototype.

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

III. RESIDENTIAL PROTOTYPES

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

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

RECENT HOUSING DEVELOPMENT TRENDS

In order to ensure that the prototypes accurately reflect current market conditions, the Consultant Team analyzed recently built market rate housing development projects in Menlo Park. Menlo Park has recently attracted new single-family detached and single-family attached development.

Figure III-1 summarizes the market data for recently built single-family detached units in Menlo Park. The table shows that units sold, on average, for approximately \$2.7 million, and had an average size over 2,800 square feet. Figure III-2 presents the market data for single-family attached units recently built and sold in Menlo Park. These units had, on average, a size of 1,700 square feet, and a price of approximately \$1.4 million. Menlo Park has not seen recent condominium developments; however, the City anticipates that such development could take place in the near future. In order to create a condominium prototype representative of Menlo Park's market, the Consultant Team has studied condominium development in two nearby and comparable cities, Redwood City and Palo Alto. Figure III-3 presents a summary of recent condominium projects in Redwood City and Palo Alto: units had an average size of 1,800 square feet and an average price of \$978,000. Similarly, market data on Redwood City and Mountain View's apartment market was used to construct an apartment prototype for Menlo Park. As shown in Figure III-4, average asking monthly rents are approximately \$2,700 for studios, \$3,200 for one bedroom units, \$4,200 for two-bedroom units, and \$4,000 for three-bedroom units.

MENLO PARK RESIDENTIAL PROTOTYPES

Based on historical development trends, market data, broker interviews, and input from city staff, the Consultant Team constructed four housing prototypes that represent the type of development that is likely to occur in Menlo Park. These development prototypes are not intended to represent specific development projects; rather, they are designed to illustrate the type of projects that are likely to be built in Menlo Park in the near future. The prototypes, as shown in Figure III-5, provide information on the building type, number of units, average size by unit type, and average monthly rents or sales prices by unit type.

For-Sale Single-Family Detached Units

The for-sale single-family detached prototype is a wood siding wood-frame building with an attached garage and a net residential area of 30,000 square feet. The estimated density is 6 units per acre. This

building type is representative of recently built single-family detached units in Menlo Park. These are four-bedroom and four-bathroom units of a size per unit of 3,000 square feet. The estimated unit sale price is \$2,600,000.

For-Sale Single-Family Attached Units

The for-sale single-family attached prototype is a Type V wood-frame building with a tuck-under podium parking and a net residential area of 34,000 square feet. The estimated density is 13 units per acre. This type of building is typical for new single-family attached units in Menlo Park. These are three bedroom units with an average size of 1,700 square feet and a price of \$1,428,000.

For-Sale Condominiums

The for-sale condominium prototype is a Type V wood-frame building with an underground parking garage and net residential area of 270,000 square feet. The estimated average density is 35 units per acre. This building type is representative of recently built condominium projects in the nearby, comparable markets of Redwood City and Palo Alto, and approximate potential future development in Menlo Park. Units have four bedrooms and an average size of 1,800 square feet. The average estimated price of newly built condominiums is \$980,000.

Rental Apartments

The rental apartment prototype is a Type V wood-frame building with podium parking and net residential area of 137,400 square feet. The estimated density is 43 units per acre. This prototype, based on market data from Redwood City and Mountain View, represents a potential future new market-rate apartment development in Menlo Park. The apartment unit mix consists of mostly one- and two-bedroom units, with a smaller number of studios and three-bedroom units. Estimated monthly rents range from \$2,700 to \$4,200 per unit, depending on unit size and number of bedrooms.

Figure III-1. Sales of Recently Built Single-Family Detached Units in Menlo Park*

Address	City	Year Built	Square Feet	Beds	Baths	Sale Date	Sale Amount
739 Cambridge Ave	Menlo Park	2011	2,680	3.0	3.5	Dec 12, 2011	\$2,499,000
1206 N Lemon Ave	Menlo Park	2011	3,308	4.0	3.5	Jul 27, 2011	\$2,500,000
2027 Menalto Ave	Menlo Park	2011	2,564	5.0	3.5	May 09, 2012	\$1,705,000
1015 Windsor Dr	Menlo Park	2011	3,591	4.0	4.0	May 12, 2011	\$4,000,000
8 Shasta Ln	Menlo Park	2011	4,460	5.0	4.5	Jan 05, 2012	\$4,300,000
440 Cotton St	Menlo Park	2011	4,379	5.0	5.0	May 26, 2011	\$4,100,000
611 College Ave	Menlo Park	2012	2,620	4.0	3.0	Dec 15, 2011	\$2,125,000
140 Campo Bello Ln	Menlo Park	2012	3,010	4.0	4.0	Mar 04, 2013	\$3,475,000
1131 Saxon Way	Menlo Park	2012	3,430	5.0	5.5	Feb 22, 2013	\$3,850,000
2 Robert S Dr	Menlo Park	2012	4,410	5.0	6.5	Oct 22, 2012	\$4,000,000
521 Laurel Ave	Menlo Park	2013	1,947	3.0	2.5	Feb 28, 2011	\$600,000
1255 Santa Cruz Ave	Menlo Park	2013	2,680	4.0	3.5	Jun 12, 2013	\$2,300,000
2199 Clayton Dr	Menlo Park	2013	3,190	4.0	3.5	May 15, 2013	\$3,395,000
140 Royal Oaks Ct	Menlo Park	2013	3,540	5.0	4.5	Apr 27, 2012	\$3,600,000
480 Lemon St	Menlo Park	2013	3,530	5.0	4.5	May 01, 2013	\$3,850,000
2189 Clayton Dr	Menlo Park	2013	4,610	5.0	4.5	Oct 18, 2013	\$3,880,000
240 University Dr	Menlo Park	2012	2,530	3.0	4.5	Jul 05, 2012	\$3,995,000
389 El Camino Real (Artisan; 9 Units)	Menlo Park	2014	1,941	4.0	2.5	2014	\$1,750,000
Average (Weighted)			2,844	4.2	3.6		\$2,689,385

*Includes transactions that occurred between 2011 and April 2014, of single-family homes built in or after 2011.

Source: DataQuick, April 2014; Sales Office Interviews, 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-2. Sales of Recently Built Single-Family Attached Units in Menlo Park*

Address	City	Subdivision/Complex	Bedrooms	Baths	Square Feet	Year Built	Year Sold	Sale Amount
1071 Fremont St	Menlo Park	Fremont Street	3	2.5	1590	2011	2011	\$1,685,000
1071 Fremont St	Menlo Park	Fremont Street	3	2.5	1590	2011	2011	\$1,801,000
1071 Fremont St	Menlo Park	Fremont Street	3	2.5	1590	2011	2011	\$1,699,000
1071 Fremont St	Menlo Park	Fremont Street	3	2.5	1590	2011	2011	\$1,699,000
1071 Fremont St	Menlo Park	Fremont Street	3	2.5	1590	2011	2011	\$1,700,000
389 El Camino Real	Menlo Park	Artisan (2 Units)	2		1,434	2014	2014	\$900,000
389 El Camino Real	Menlo Park	Artisan (14 Units)	3		1,733	2014	2014	\$1,400,000
Average (Weighted)			2.9	2.5	1,670	2014		\$1,427,810

*Includes transactions that occurred between 2011 and 2014, of townhouses built in or after 2011.

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

Figure III-3. Sales of Recently Built Condominium Units in Palo Alto and Redwood City*

Project	City	Subdivision/Complex	Bedrooms	Baths	Number of Units	Square Feet	Year Built	Year Sold	Sale Amount
Redwood Gate	Palo Alto	Redwood Gate	4	3.5	34	2,121	2009-2011	2009-2013	\$1,389,588
One Marina	Redwood City	One Marina	2	N/A	73	1,406	2012	2012-2014	\$566,204
Average						1,764			\$977,896

*Includes all closed condominium sales of recent development projects as reported by Polaris Pacific, May 2014.

Sources: Polaris Pacific, May 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-4. Asking Rents of Recently Built Apartment Units in Redwood City and Mountain View*

Project	Address	City	Year Built	Bedrooms	Baths	Number of Units	Average Size (SF)	Average Rent
Carmel the Village	555 San Antonio Rd	Mountain View	2013	0	1	41	537	\$2,795
Carmel the Village	555 San Antonio Rd	Mountain View	2013	1	1	192	693	\$3,350
Carmel the Village	555 San Antonio Rd	Mountain View	2013	2	2	97	1054	\$4,820
201 Marshall	201 Marshall St	Redwood City	2014	0	1	10	634	\$2,495
202 Marshall	202 Marshall St	Redwood City	2014	1	1 to 2	64	1,030	\$3,378
203 Marshall	203 Marshall St	Redwood City	2014	2	1 to 2	39	1,129	\$4,260
Radius	640 Veteran's Dr	Redwood City	2014	1	1	150	840	\$3,100
	640 Veteran's Dr	Redwood City	2014	2	1 to 2	100	1,132	\$3,845
	640 Veteran's Dr	Redwood City	2014	3	2	14	1,289	\$4,093
Township Apartments	333 Main St	Redwood City	2013	1	1	41	725	\$3,063
	333 Main St	Redwood City	2013	2	2	88	1,080	\$3,600
	333 Main St	Redwood City	2013	3	2	3	1,224	\$3,300
Woodside	885 Woodside Rd	Redwood City	2011	1	1	14	840	\$3,365
	885 Woodside Rd	Redwood City	2011	2	2	21	1,424	\$5,290
Percent of Total/Average by Unit Type								
Studio						6%	556	\$2,736
1 bedroom						53%	795	\$3,247
2 bedroom						39%	1,114	\$4,191
3 bedroom						2%	1,277	\$3,953

*Apartment asking rents from summer 2014, for apartment units built since 2011.

Sources: CoStar, May and June 2014; Leasing Websites, Summer 2014; Strategic Economics & Vernazza Wolfe Associates, Inc., 2014.

Figure III-5. Menlo Park Prototypes

Prototype	Unit Type	Number of Units	Net Area (SF)	Unit Sales Price/ Monthly Rent	Price or Rent per SF
Single-Family Detached (For-Sale)					
Wood siding wood frame	4 BD/4 BA	10	3,000	\$2,600,000	\$867
6 units per acre					
Attached garage					
Net Residential Area (Net SF)			30,000		
Single-Family Attached (For-Sale)					
Type V wood frame	3 BD/3 BA	20	1,700	\$1,428,000	\$840
13 units per acre					
Tuck-under podium parking					
Net Residential Area			34,000		
Condominiums (For-Sale)					
Type V wood frame	4 BD/3 BA	150	1,800	\$980,000	\$544
35 units per acre					
Subterranean parking					
Net Residential Area (Net SF)			270,000		
Apartments (Rental)					
Type V wood frame	Studio	9	600	\$2,700	\$4.50
43 units per acre	1 BD/1 to 2 BA	79	800	\$3,200	\$4.00
Podium parking	2 BD/1 to 2 BA	59	1,100	\$4,200	\$3.82
	3 BD/2 BA	3	1,300	\$4,000	\$3.08
Net Residential Area			137,400		
Average Net SF per Unit			916		

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

HOUSEHOLD INCOMES OF BUYERS AND RENTERS

Using the sales prices and rents shown in Figure III-5, the next step is to calculate the annual household incomes of the buyers of new for-sale single-family detached units, single-family attached units, and condominium units, and the renters occupying new apartment units. The household income is a key input to the IMPLAN3 economic impact analysis described in Section IV of this report.

Incomes of Single-Family Detached Units Buyers

To calculate the household income of buyers of new single-family detached units, the analysis used typical mortgage terms for San Mateo County: 20 percent down payment, 30 year fixed rate mortgage, and 4.35 percent interest rate. Menlo Park's property tax rate was estimated from recent budget documents. Total housing costs, including monthly payments for mortgage payments, property taxes

and insurance, are assumed to be 35 percent of available monthly income. This is a conservative assumption, given that many households spend a higher share of their disposal incomes on housing, once other types of debt such as auto loans, student loans, and personal credit loans are considered. The result of the income estimates for households buying new single-family detached units is shown in Figure III-6. As shown in the calculations, for single-family detached units, household incomes are estimated to be well over \$450,000.

Income of Single-Family Attached Buyers

For buyers of single-family attached units, the analysis applied the same typical mortgage terms as those used for single-family detached units, and Menlo Park's property tax rates. Homeowner association (HOA) fees were based on a review of HOA fees at similar new single-family attached developments in San Mateo County. As in the previous case, households are expected to spend 35 percent of available monthly income (a conservative estimate) on total housing costs, including monthly payments for mortgage payments, property taxes, insurance and HOA fees. Figure III-7 shows the result of the income estimates for households buying new single-family attached units. As shown in the calculations, for single-family attached units, household incomes are estimated to be over \$250,000.

Incomes of Condominium Buyers

To calculate the household income of buyers of new condominium units, the analysis applied mortgage terms typical for San Mateo County: 20 percent down payment, 30 year fixed rate mortgage, and 4.35 percent interest rate. Property tax rates were estimated from recent budget documents, and homeowner association (HOA) fees were based on a review of HOA fees at similar new condominium developments in San Mateo County. Total housing costs, including monthly payments for mortgage payments, property taxes, insurance, and HOA fees, are assumed to be 35 percent of available monthly income; as mentioned previously, this is a conservative estimate. The result of the income estimates for households buying new condominium units is shown in Figure III-8. As shown in the calculations, for condominium units, household incomes are estimated to be over \$150,000.

Incomes of Apartment Renters

For renter households, maximum annual housing costs are assumed to be 30 percent of gross household income, a standard established in California's Health and Safety Code Sections 50052.5 and 50053, although it is acknowledged that many renters in San Mateo County spend a higher share of their gross income on housing. The estimated household income of renters varies by unit type, as indicated in Figure III-9. Studio renter households have an estimated annual income of \$108,000. One-bedroom, two-bedroom and three-bedroom unit renter households have estimated household incomes of \$128,000, \$168,000 and \$160,000, respectively.

Figure III-6. Estimated Annual Household Incomes of Buyers of Single-Family Detached Units

Single-Family Detached Units	
4 BR/4 BA	
Number of Households	10
Sales Price	\$2,600,000
Down Payment (a)	\$520,000
Loan Amount	\$2,080,000
Monthly Debt Service (b)	\$10,354
Annual Debt Service	\$124,254
Annual Property Taxes (c)	\$28,943
Fire and Hazard Insurance (d)	\$9,100
Annual Housing Costs (e)	\$162,297
Household Income	\$463,706

Notes:

(a) Down payment is estimated at 20% of sales price, based on Freddie Mac data for San Mateo County.

(b) Interest rate is estimated at 4.35% for a 30-year term, based on Freddie Mac data, <http://www.freddie.mac.com/pmms/pmms30.htm>.

(c) Property tax rate is 1.1132% based on Menlo Park CAFR.

(d) Industry standard, estimated at 0.35%.

(e) Homeownership housing burden is estimated at 35%, based on California Health & Safety Code Sections 50052.5 and 50053.

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

Figure III-7. Estimated Annual Household Incomes of Buyers of Single-Family Attached Units

Single-Family Attached Units	
3 BR/3 BA	
Number of Households	20
Sales Price	\$1,428,000
Down Payment (a)	\$285,600
Loan Amount	\$1,142,400
Monthly Debt Service (b)	\$5,687
Annual Debt Service	\$68,244
Annual Property Taxes (c)	\$15,896
Annual HOA Fees (d)	\$3,000
Fire and Hazard Insurance (e)	\$4,998
Annual Housing Costs (f)	\$92,139
Household Income	\$263,253

Notes:

(a) Down payment is estimated at 20% of sales price, based on Freddie Mac data for San Mateo County.

(b) Interest rate is estimated at 4.35% for a 30-year term, based on Freddie Mac data, <http://www.freddie.mac.com/pmms/pmms30.htm>.

(c) Property tax rate is 1.1132% based on Menlo Park CAFR.

(d) Homeownership association (HOA) fees are estimated at \$250 per month, based on fees charged at a sample of recently built projects in San Mateo County.

(e) Industry standard

(f) Homeownership housing burden is estimated at 35%, based on California Health & Safety Code Sections 50052.5 and 50053.

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

Figure III-8. Estimated Annual Household Incomes of Buyers of Condominium Units

Condominium Units	
4 BR/3 BA	
Number of Households	150
Sales Price	\$980,000
Down Payment (a)	\$196,000
Loan Amount	\$784,000
Monthly Debt Service (b)	\$3,903
Annual Debt Service	\$46,834
Annual Property Taxes (c)	\$10,909
Annual HOA Fees (d)	\$5,400
Fire and Hazard Insurance (e)	\$3,430
Annual Housing Costs (f)	\$66,573
Household Income	\$190,210

Notes:

(a) Down payment is estimated at 20% of sales price, based on Freddie Mac data for San Mateo County.

(b) Interest rate is estimated at 4.35% for a 30-year term, based on Freddie Mac data, <http://www.freddiemac.com/pmms/pmms30.htm>.

(c) Property tax rate is 1.1132% based on Menlo Park CAFR.

(d) Homeownership association (HOA) fees are estimated at \$450 per month, based on review of new condominiums in San Mateo County.

(e) Industry standard

(f) Homeownership housing burden is estimated at 35%, based on California Health & Safety Code Sections 50052.5 and 50053.

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

Figure III-9. Estimated Annual Household Incomes of Renters of Apartment Units

	Apartment Unit Type			
	Studio	1 BR/ 1 to 2 BA	2 BR/ 1 to 2 BA	3 BR/ 2 BA
Number of Households	9	79	59	3
Monthly Rent	\$2,700	\$3,200	\$4,200	\$4,000
Annual Housing Costs	\$32,400	\$38,400	\$50,400	\$48,000
Housing Costs as % of Income (a)	30%	30%	30%	30%
Household Income	\$108,000	\$128,000	\$168,000	\$160,000

Notes:

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

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

IV. ECONOMIC IMPACT ANALYSIS (IMPLAN3)

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

THE IMPLAN3 MODEL

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

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

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

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

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

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

the model tracks how household demand moves through the supply chain. Industries that produce goods and services for final demand or consumption must purchase inputs from other producers, which in turn, purchase goods and services. The model tracks these linkages through the economy to the point where leakages from the region stop the cycle. The input-output model estimates the job impacts by detailed industry sector. The detailed industry job impact estimates are then distributed by occupational category. The occupational employment data used in the analysis came from the California Employment Development Department (EDD) Labor Market Information Division, and aggregates together data for all of California. After converting the industry level data into occupational employment, the income distribution was calculated using the occupational wage data for the San Francisco-San Mateo-Redwood City Metropolitan Division (MD) that combines San Francisco, Marin, and San Mateo counties. The average wage by occupation was used to make this calculation. The 2014 (first quarter) occupational wage data used in the analysis comes from EDD.

HOUSEHOLD INCOME IMPACTS

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

Figure IV-1 below summarizes the household income data for single-family detached and attached households. As shown, all 10 single-family detached buyer households are in the income category of \$150,000 or higher, with a total combined household income of \$4.64 million. All 20 single-family attached buyer households have an average household income over \$150,000, and an aggregate household income of \$5.27 million. Figure IV-2 demonstrates the same calculation for condominium buyer households and renter households. The 150 households of the condominium prototype have an average household income over \$150,000, and a combined income of \$28.53 million. The rental prototype has 88 households in the \$100,000-\$150,000 income category, and 62 households in the over \$150,000 income category. The combined total household income for renter households is \$21.48 million. These total income figures, adjusted to account for taxes and savings, were used as inputs for the IMPLAN3 analysis.

EMPLOYMENT AND WAGE IMPACTS

Based on the incomes of the new buyers and renters, the next step is to determine employment and wage impacts from each prototype. Estimated employment and wages are shown in Figure IV-3 for each IMPLAN3 industry sector, indicating the number of induced jobs, the industry's share of total employment growth by prototype, and the average wage by industry. Figure IV-4 provides the same IMPLAN3 output data, organized by occupation rather than industry, for each prototype. As shown in both figures, many of the induced jobs generated within San Mateo County are in low-wage sectors and occupations related to retail and food services (restaurants). However, a significant proportion of induced jobs are in higher-paying resident-serving categories such as health care and government.

ESTIMATING WORKER-HOUSEHOLDS

Recognizing that many households have more than one wage-earner, the next step is to calculate the number of worker-households by dividing the total number of new workers by the average number of wage-earners per household in Menlo Park. According to the U. S. Census Bureau 2008-2012 American Community Survey 3-Year Estimate, Menlo Park has an average of 1.53 workers per household. The number of induced jobs is divided by 1.53 to calculate the total number of worker households. Figure IV-5 illustrates this calculation.

ESTIMATING DEMAND FOR AFFORDABLE HOUSING

To estimate the demand for affordable housing, it is first necessary to determine the incomes of the new households. Once the average annual household income of worker households is calculated, the next step is to categorize households into area median income (AMI) levels based on the thresholds set by California Department of Housing and Community Development for San Mateo County. The average household size in Menlo Park is 2.5 (rounded to 3.0), according to the US Census American Community Survey 5-Year Estimates 2008-2012. The income threshold for a three-person household in San Mateo County was therefore used to determine the AMI categories of each new worker household.⁶ Figure IV-6 indicates that of the 10.8 new worker households associated with a single-family detached development, there will be 8.6 households that need affordable housing. The comparable figures for single-family attached, condominium and apartment developments are, respectively, 9.8, 53 and 47.3 households.

⁶ The average Menlo Park household size is 2.5, according to the US Census, American Community Survey 5 Year Estimates, 2008-2012. This figure was rounded to 3.0 persons.

Figure IV-1. Estimated Incomes by Income Categories for Buyers of Single-Family Detached and Single-Family Attached Units

Income Category	Single-Family Detached Prototype			Single-Family Attached Prototype		
	New Households	Aggregate Household Incomes	Average Household Income	New Households	Aggregate Household Incomes	Average Household Income
Less than \$10,000	0	\$0	n/a	0	0	n/a
\$10,000-\$15,000	0	\$0	n/a	0	0	n/a
\$15,000-\$25,000	0	\$0	n/a	0	\$0	n/a
\$25,000-\$35,000	0	\$0	n/a	0	\$0	n/a
\$35,000-\$50,000	0	\$0	n/a	0	\$0	n/a
\$50,000-\$75,000	0	\$0	n/a	0	\$0	n/a
\$75,000-\$100,000	0	\$0	n/a	0	\$0	n/a
\$100,000-\$150,000	0	\$0	n/a	0	\$0	n/a
Over \$150,000	10	\$4,637,058	\$463,706	20	\$5,265,058	\$263,253
Total	10	\$4,637,058	\$463,706	20	\$5,265,058	\$263,253

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

Figure IV-2. Estimated Incomes by Income Categories for Buyers of Condominiums Units and Renters of Apartment Units

Income Category	Condominium Prototype			Apartment Prototype		
	New Households	Aggregate Household Incomes	Average Household Income	New Households	Aggregate Household Incomes	Average Household Income
Less than \$10,000	0	\$0	n/a	0	0	n/a
\$10,000-\$15,000	0	\$0	n/a	0	0	n/a
\$15,000-\$25,000	0	\$0	n/a	0	\$0	n/a
\$25,000-\$35,000	0	\$0	n/a	0	\$0	n/a
\$35,000-\$50,000	0	\$0	n/a	0	\$0	n/a
\$50,000-\$75,000	0	\$0	n/a	0	\$0	n/a
\$75,000-\$100,000	0	\$0	n/a	0	\$0	n/a
\$100,000-\$150,000	0	\$0	n/a	88	\$11,084,000	\$125,955
Over \$150,000	150	\$28,531,497	\$190,210	62	\$10,392,000	\$167,613
Total	150	\$28,531,497	\$190,210	150	\$21,476,000	\$143,173

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

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

Industry (NAICS code)	Average Wage	Single-Family Detached Prototype		Single-Family Attached Prototype		Condominium Prototype		Apartment Prototype	
		Jobs	% Of Jobs	Jobs	% Of Jobs	Jobs	% Of Jobs	Jobs	% Of Jobs
11 Forestry, fishing, hunting, and agriculture	\$38,309	0.01	0%	0.01	0%	0.06	0%	0.06	0%
21 Mining	\$70,505	0.01	0%	0.01	0%	0.04	0%	0.04	0%
22 Utilities	\$74,144	0.03	0%	0.03	0%	0.17	0%	0.16	0%
23 Construction	\$68,376	0.36	2%	0.41	2%	2.23	2%	1.82	2%
31 Manufacturing	\$66,946	0.04	0%	0.05	0%	0.27	0%	0.24	0%
42 Wholesale trade	\$62,797	0.20	1%	0.23	1%	1.25	1%	1.12	1%
44 Retail trade	\$54,808	2.53	15%	2.88	15%	15.59	15%	14.08	16%
48 Transportation & warehousing	\$49,308	0.37	2%	0.42	2%	2.28	2%	1.94	2%
51 Information	\$77,312	0.21	1%	0.24	1%	1.32	1%	1.22	1%
52 Finance & insurance	\$71,830	0.81	5%	0.92	5%	5.01	5%	4.50	5%
53 Real estate & rental & leasing	\$66,316	0.77	5%	0.88	5%	4.75	5%	4.47	5%
54 Professional, scientific & technical services	\$91,389	0.50	3%	0.57	3%	3.09	3%	2.65	3%
55 Management of companies & enterprises	\$88,955	0.02	0%	0.02	0%	0.13	0%	0.12	0%
56 Admin, support, waste mgt, remediation services	\$54,197	0.68	4%	0.77	4%	4.19	4%	3.76	4%
61 Educational services	\$62,584	0.74	4%	0.84	4%	4.53	4%	3.47	4%
62 Health care and social assistance	\$68,778	2.92	18%	3.32	18%	17.97	18%	17.11	19%
71 Arts, entertainment & recreation	\$49,614	0.57	3%	0.64	3%	3.49	3%	3.04	3%
72 Accommodation & food services	\$31,520	2.32	14%	2.64	14%	14.28	14%	13.37	15%
81 Other services (except public administration)	\$53,217	1.66	10%	1.88	10%	10.20	10%	9.28	10%
91 Government	\$70,961	1.66	10%	1.89	10%	10.22	10%	7.61	8%
Total		16.43	100%	18.65	100%	101.09	100%	90.06	100%

Note: Average wage is calculated based on the mean occupational wages, and the average statewide distribution of occupations for each industry.
Sources: Applied Development Economics, Inc, 2015; Vernazza Wolfe Associates, Inc. and Strategic Economics, 2015.

Figure IV-4. Estimated Job and Wage Impacts of Prototypes by Occupation

SOC Code	Occupational Title	Average Annual Wage	Single-Family Detached Jobs	Single-Family Attached Jobs	Condominium Jobs	Apartment Jobs
11-0000	Management Occupations	\$146,537	0.76	0.86	4.68	4.15
13-0000	Business and Financial Operations Occupations	\$95,505	0.80	0.90	4.90	4.22
15-0000	Computer and Mathematical Occupations	\$104,996	0.28	0.32	1.71	1.47
17-0000	Architecture and Engineering Occupations	\$100,605	0.15	0.17	0.91	0.73
19-0000	Life, Physical, and Social Science Occupations	\$96,012	0.14	0.16	0.86	0.71
21-0000	Community and Social Services Occupations	\$54,663	0.37	0.42	2.28	2.01
23-0000	Legal Occupations	\$140,841	0.11	0.12	0.65	0.53
25-0000	Education, Training, and Library Occupations	\$59,459	0.63	0.72	3.89	3.14
27-0000	Arts, Design, Entertainment, Sports, Media Occupations	\$70,952	0.25	0.28	1.53	1.35
29-0000	Healthcare Practitioners and Technical Occupations	\$111,876	1.05	1.19	6.47	6.04
31-0000	Healthcare Support Occupations	\$41,374	0.49	0.56	3.04	2.87
33-0000	Protective Service Occupations	\$61,618	0.43	0.49	2.64	2.09
35-0000	Food Preparation and Serving-Related Occupations	\$27,076	2.46	2.79	15.14	14.06
37-0000	Building and Grounds Cleaning and Maintenance	\$33,575	0.52	0.59	3.20	2.85
39-0000	Personal Care and Service Occupations	\$33,716	1.18	1.34	7.25	6.62
41-0000	Sales and Related Occupations	\$54,767	2.17	2.47	13.36	12.09
43-0000	Office and Administrative Support Occupations	\$46,720	2.54	2.88	15.60	13.78
45-0000	Farming, Fishing, and Forestry Occupations	\$34,770	0.02	0.02	0.11	0.09
47-0000	Construction and Extraction Occupations	\$63,327	0.32	0.36	1.95	1.59
49-0000	Installation, Maintenance, and Repair Occupations	\$58,564	0.59	0.67	3.64	3.23
51-0000	Production Occupations	\$41,105	0.31	0.36	1.93	1.72
53-0000	Transportation and Material Moving Occupations	\$42,255	0.87	0.99	5.36	4.71
	Total all occupations		16.43	18.65	101.09	90.06

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

Figure IV-5. Induced Employment Impacts, Menlo Park

Project Prototype	Single-Family Detached	Single-Family Attached	Condominium	Apartment
Number of Units	10	20	150	150
Induced Employment (Workers)	16	19	101	90
Average Number of Workers per Household	1.53	1.53	1.53	1.53
New Worker Households	10.74	12.19	66.07	58.86

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

Figure IV-6. New Worker Households by Income Group for Single-Family Detached, Single-Family Attached, Condominium and Apartment Prototypes

Worker Households by Income Category	Income Thresholds (3-Person Household)	Single-Family Detached	Single-Family Attached	Condominium	Apartment
Households Requiring Affordable Housing					
Very Low Income (<=50% AMI)	\$50,900	2.7	3.1	16.8	15.5
Low Income (51-80% AMI)	\$81,450	2.8	3.1	17.0	15.1
Moderate Income (81-120% AMI)	\$92,700	3.1	3.5	19.2	16.7
Subtotal Very Low, Low, Moderate Income		8.6	9.8	53.0	47.3
Above Moderate Income Households (>120% AMI)	>\$92,700	2.1	2.4	13.2	11.7
Total All Worker Households		10.8	12.2	66.2	59.0

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

V. AFFORDABILITY GAP ANALYSIS

Estimating the housing affordability gap is necessary to calculate the maximum potential housing impact fee. This affordability gap analysis was conducted at the county-wide level so that it can be applied to all the jurisdictions in San Mateo County participating in the multi-city nexus study.⁷ This section summarizes the approach to calculating the housing affordability gap and the results of the analysis.

METHODOLOGY

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

1. Estimating affordable rents and housing prices for households in target income groups.
2. Estimating development costs of building new, modest housing units, based on current cost and market data.
3. Calculating the difference between what renters and owners can afford to pay for housing and the cost of development of rental and ownership units.

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

- Both the California Department of Housing and Community Development Department (HCD) and U.S. Housing and Urban Development Department (HUD) define the ability to pay for housing at the county (rather than the city) level. Existing affordable housing studies and policies in most jurisdictions rely on these countywide area median income (AMI) estimates published by HCD or by HUD. This analysis uses 2014 income limits published by California Department of Housing and Community Development (HCD).
- Construction costs for housing and commercial development do not vary dramatically between different jurisdictions in San Mateo County, because the cost of labor and materials is regional in nature.

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

⁷ Although there is a single housing affordability gap estimate for all jurisdictions in the county, the subsequent steps in the fee calculation considers market and household characteristics for Menlo Park, generating a unique maximum fee for each jurisdiction in the county, as described in Section V.

ESTIMATING AFFORDABLE RENTS AND SALES PRICES

The first step in calculating the housing affordability gap is to determine the maximum amount that households at the targeted income levels can afford to pay for housing. For eligibility purposes, most affordable housing programs define very low income households as those earning approximately 50 percent or less of area median income (AMI), low income households as those earning between 51 and 80 percent of AMI, and moderate income households as those earning between 81 and 120 percent of AMI. In order to ensure that the affordability of housing does not use the top incomes in each category, the analysis uses a point within the income ranges for the low and moderate income groups.⁸

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

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

- **Unit types:** For rental housing, the analysis included studios, one-, two-, and three-bedroom units. For for-sale housing, one-, two-, and three-bedroom units were included. These unit types represent the affordable and modest market-rate apartment and condominium units available in San Mateo County. Condominiums were used to represent modest for-sale housing because single-family homes in San Mateo County tend to be significantly more expensive than condominiums.
- **Occupancy and household size assumptions.** Because income levels for affordable housing programs vary by household size, calculating affordable unit prices requires defining household sizes for each unit type. Consistent with California Health and Safety Code Section 50052.5(h), unit occupancy was generally estimated as the number of bedrooms plus one. For example, a studio unit is assumed to be occupied by one person, a one bedroom unit is assumed to be occupied by two people, and so on. Several adjustments to this general assumption were made in order to capture the full range of household sizes. In particular, it is assumed that one-bedroom condominiums could be occupied by one- or two-person households, and three-bedroom apartments and condominiums could be occupied by four- or five-person households.⁹
- **Targeted income levels for rental housing:** For rental housing, affordable rents were calculated for very low income, low income, and moderate income households (see Figure V-1 and Figure V-2). For eligibility purposes, most affordable housing programs define very low

⁸ For rental housing, 70 percent of AMI is used to represent low income households and 90 percent of AMI is used to represent moderate income households. For ownership housing, it is assumed that moderate income homebuyers may earn slightly less than the maximum for that income category (110 percent of AMI). Higher income limits are used for ownership than for rental housing because ownership housing is more expensive to purchase and maintain.

⁹ For these unit types, the maximum affordable home price (or rent) is calculated as the average price (or rent) that the relevant household sizes can afford to pay. For example, the maximum affordable home price for a one-bedroom condominium is calculated as the average of the maximum affordable home price for one- and two-person households.

income households as those earning 50 percent or less of area median income (AMI), low income households as those earning between 51 and 80 percent of AMI, and moderate income households as those earning between 81 and 120 percent of AMI. However, defining affordable housing expenses based at the top of each income range would result in prices that are not affordable to most of the households in each category. Thus, this analysis does not use the maximum income level for all of the income categories. Instead, for rental housing, 70 percent of AMI is used to represent moderate income households and 90 percent of AMI is used to represent moderate income households.

- **Targeted income levels for ownership housing** For ownership housing, affordable home prices were calculated only for moderate income households (see Figure V-3 and Figure V-4). Higher income limits are used for ownership than for rental housing because ownership housing is more expensive to purchase and maintain. It is assumed that moderate income homebuyers may earn slightly less than the maximum for that income category (110 percent of AMI).
- **Maximum monthly housing costs.**¹⁰ For all renters, maximum monthly housing costs are assumed to be 30 percent of gross household income. For homebuyers, 35 percent of gross income is assumed to be available for monthly housing costs, reflecting the higher incomes of this group.¹¹ These standards are based on California’s Health & Safety Code Sections 50052.5 and 50053.
- **Utilities.** The monthly utility cost assumptions are based on utility allowances calculated by the U.S. Department of Housing and Urban Development for San Mateo County.¹² Both renters and owners are assumed to pay for heating, cooking, other electric, and water heating. In addition, owners are assumed to pay for water and trash collection.¹³
- **Mortgage terms and costs included for ownership housing.** The mortgage calculations are based on the terms typically offered to first-time homebuyers (such as the terms offered by the California Housing Finance Authority), which is a 30-year mortgage with a five percent down payment. A five percent down payment standard is also used by many private lenders for first-time homebuyers. Based on recent interest rates to first-time buyers, the analysis assumes a 5.375 percent annual interest rate.¹⁴ In addition to mortgage payments and utilities, monthly

¹⁰ The calculation of homeowner affordability is conservative in that the model accounts for additional costs for buyers (such as utility costs) that might not be considered by all lenders.

¹¹ The assumption that homebuyers spend 35 percent of gross household income on housing results in a lower affordability gap than if 30 percent of gross household income were used instead.

¹² U.S. Department of Housing and Urban Development, "Allowances for Tenant-Furnished Utilities and Other Services: Housing Authority of San Mateo County," November 2013.

¹³ Units are assumed to have natural gas heating, cooking, and water heating systems, as natural gas is the most common fuel for units located in San Mateo County. Sources: U.S. Census Bureau, 2012 American Community Survey, "Table B25117: Tenure by House Heating Fuel," San Mateo County; U.S. Census Bureau, 2011 American Housing Survey, "Table C-03-AH-M, San Francisco-San Mateo-Redwood City: Heating, Air Conditioning, and Appliances – All Housing Units."

¹⁴ Sources: CalHFA Mortgage Calculator, accessed March 2014; Zillow.com, "Current Mortgage Rates and Home Loans," accessed March 2014; interviews with California Housing Finance Agency (CalHFA) Preferred Loan Officers, March 2014.

ownership housing costs include homeowner association (HOA) dues,¹⁵ property taxes,¹⁶ private mortgage insurance,¹⁷ and hazard and casualty insurance.¹⁸

¹⁵ HOA fees are estimated at \$300 per unit per month, based on common HOA fees in San Mateo County as reported in: Polaris Pacific, "Silicon Valley Condominium Market," February 2014.

¹⁶ The annual property tax rate is estimated at 1.18 percent of the sales price, based on the average total tax rate for San Mateo County (calculated from County of San Mateo, 2008-09 Property Tax Highlights http://www.co.sanmateo.ca.us/Attachments/controller/Files/PTH/PTH_2009.pdf) and discussions with Preferred Loan Officers.

¹⁷ The annual private mortgage insurance premium rate is estimated at 0.89 percent of the total mortgage amount, consistent with standard requirements for conventional loans with a five percent down payment. Sources: Genworth, February 2014; MGIC, December 2013; Radian, April 2014.

¹⁸ The annual hazard and casualty insurance rate is assumed to be 0.35 percent of the sales price, consistent with standard industry practice.

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

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

Notes:

- (a) 30 percent of maximum monthly household income.
- (b) Maximum monthly housing cost minus utility deduction.

Acronyms:

- AMI: Area median income
- HH: Household

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

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

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

Notes:

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

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

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

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

Notes:

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

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

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

(d) Maximum monthly housing cost minus deductions

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

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

Acronyms:

AMI: Area median income

HH: Household

HOA: Home owners association

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

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

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

Notes:

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

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

ESTIMATING HOUSING DEVELOPMENT COSTS

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

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

Rental Housing

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

Since these projects assumed state and federal funding, the labor costs included in the original pro formas reflect the prevailing wage requirement imposed by state and local governments. The costs shown in Figure V-5 have been adjusted to subtract out the prevailing wage requirement because the development cost model used in the housing affordability gap analysis does not assume receipt of government subsidies. A rule of thumb used by local economists who assist affordable housing developers in obtaining public financing, is to estimate that, under the prevailing wage requirement, labor costs are 25 percent higher than would otherwise be the case. Therefore, on-site and off-site improvement costs obtained from the original pro formas are reduced by 25 percent to reflect actual labor costs that would apply to construction projects that do not have these requirements.¹⁹ Finally, on average, land acquisition costs accounted for 20 percent or less of these total adjusted costs.

¹⁹ These prevailing wage requirements refer only to labor cost requirements on construction projects that receive funding from the state or federal government. These are not the same as minimum wage requirements that individual cities may adopt.

Figure V-5. Affordable Housing Project Pro Forma Data

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

Notes:

- (a) Calculated per square foot of net building area.
- (b) Excludes prevailing wage requirements for on-site and off-site hard costs.
- (c) Includes design, engineering, city permits and fees, construction interest, contingencies, legal, etc.
- (d) Total costs include developer fees.

Acronyms:

SF: Square feet

Source: Confidential Pro Forma Data; Vernazza Wolfe Associates, Inc; Strategic Economics, 2014.

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

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

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

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

Acronyms:

SF: Square feet

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

For-Sale Housing

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

Review of condominium sales data – In this approach, average sales prices from condominium units built in San Mateo County between 2008 and 2012 are used as a proxy for development costs.²⁰ This approach assumes that construction costs, land costs, soft costs, and developer profit are all included in the unit sales price. Using data provided by DataQuick, the consultant team analyzed sales prices of condominium units of various sizes in the seven cities that experienced condominium development that exceeded 10 units in the aggregate between 2008 and 2012. These seven cities included Brisbane, East Palo Alto, Millbrae, Redwood City, San Carlos, San Mateo City, and South San Francisco. The other jurisdictions in San Mateo County experienced little or no condominium development during this time period. Figure V-7 summarizes the information that was used to generate a per-square-foot cost for condominium development of \$420.

Cost estimate of hypothetical condominium project - The second approach relied on published industry data sources and recent financial feasibility studies to estimate the development costs of a hypothetical condominium project, as described in Figure V-8.²¹ Land costs were estimated based on recent DataQuick land transactions shown in Figure V-6. RS Means cost data, adjusted for the Bay Area’s construction costs, was used to calculate hard costs. Based on a review of recent financial

²⁰ Ideally, cost estimates would be based only on projects built in the last year or two. However, the decline in new construction after 2007 necessitated that the analysis use several years’ worth of data in order to estimate for-sale housing costs. Since costs are not adjusted for inflation, they may be slightly lower than actual costs required for a new project to be built in 2014 or 2015. This approach is more conservative – and likely more accurate – than applying across-the-board inflation factors to historic costs. Furthermore, the increasing cost of residentially zoned, high density parcels is the main source of development cost increase. Adjusting land costs for inflation is not easily done.

²¹ The hypothetical condominium building type is a Type V building with underground parking and floor-area ratio of 1.7. The building characteristics are described in Figure IV-8.

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

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

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

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

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

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

Notes:

(a) Land value is calculated based on DataQuick records of vacant land transactions in the county. See Figure IV-6.

(b) Calculated based on RS Means cost estimates per square foot of net building area.

(c) Estimated at 30 percent of hard costs. Includes design, engineering, city permits and fees, construction interest, contingencies, legal, etc.

(d) Estimated at 12 percent of hard costs and soft costs.

Acronyms:

SF: square feet

Sources: RS Means, 2014; DataQuick 2014; Recent financial feasibility studies; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2014.

Cost Estimates by Unit Size

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

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

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

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

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

Acronyms:

SF: Square feet

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

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

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

Acronyms:

SF: Square feet

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

CALCULATING THE HOUSING AFFORDABILITY GAP

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

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

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

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

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

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

Notes:

- (a) Affordable rents are based on State of California Housing and Community Development FY 2014 Income Limits for San Mateo County. See Figure V-2.
- (b) Amount available for debt. Assumes 5% vacancy and collection loss and \$7,500 per unit per year for operating expenses and reserves based on recently built (2012-2014) and proposed affordable housing projects in the San Francisco Bay Area.
- (c) Assumes 1.25 Debt Coverage Ratio.
- (d) Assumes 6.38%, 30 year loan. Calculations based on annual payments.
- (e) Assumes \$410/SF for development costs based on comparable project pro formas.
- (f) Calculated as the difference between development costs and supportable debt.

Acronyms:

- SF: Square feet
- AMI: Area median income

Sources: Housing and Community Development, 2014; Selected San Mateo Rental Housing Pro Formas; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

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

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

Notes:

(a) See calculation in Figure V-3.

(b) Assumes \$420/SF for development costs, based on recent condominium sales data.

(c) Calculated as the difference between development cost and affordable sales price.

Acronyms:

SF: Square feet

AMI: Area median income

Sources: DataQuick Sales Data, 2008-2012; Vernazza Wolfe Associates, Inc. & Strategic Economics, 2015.

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

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

Notes:

(a) Low income households are defined at 70 percent of AMI for renters and 80 percent of AMI for owners.

(b) Moderate income households are defined at 90 percent of AMI for renters and 110 percent AMI for owners.

Acronyms:

AMI: Area median income.

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

VI. NEXUS FEES AND REQUIREMENTS

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

MAXIMUM FEE CALCULATION

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

Figure VI-1 presents the results of the nexus fee calculation for the single-family detached prototype. The per unit housing affordability gap number is multiplied by the number of income-qualified worker households linked to the prototype to estimate the total gap. The total affordability gap is then divided by the number of units in the prototype to derive the maximum fee per unit, estimated at \$197,963 per unit. The same steps are taken for the single-family attached, condominium and apartment prototypes to estimate the maximum fee per unit, as shown in Figures VI-2 through VI-4. The calculated maximum fees are \$112,387 per single-family attached unit, \$81,203 per condominium unit, and \$72,766 per apartment unit.

The fees can also be calculated on per-square-foot basis by dividing the total gap by the net residential area for each prototype. The maximum fee per square foot is \$66 for the 30,000-square-foot single-family detached prototype (Figure VI-5), \$66 for the 34,000-square-foot single-family attached prototype (Figure VI-6), \$45 per square foot for the 270,000-square-foot condominium prototype (Figure VI-7), and \$79 for the 137,400-square-foot prototype (Figure VI-8).

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

Figure VI-1. Maximum Per-Unit Fee for Single-Family Detached Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Number Units in Prototype	Total Fee Per Unit
Very Low Income (<=50% AMI)	\$280,783	2.7	\$768,368		
Low Income (51-80% AMI)	\$240,477	2.8	\$663,661		
Moderate Income (81-120% AMI)	\$175,558	3.1	\$547,599		
Total			\$1,979,628	10	\$197,963

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

Figure VI-2. Maximum Per-Unit Fee for Single-Family Attached Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Number Units in Prototype	Total Fee Per Unit
Very Low Income (<=50% AMI)	\$280,783	3.1	\$872,429		
Low Income (51-80% AMI)	\$240,477	3.1	\$753,541		
Moderate Income (81-120% AMI)	\$175,558	3.5	\$621,761		
Total			\$2,247,731	20	\$112,387

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

Figure VI-3. Maximum Per-Unit Fee for Condominium Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Number Units in Prototype	Total Fee Per Unit
Very Low Income (<=50% AMI)	\$280,783	16.8	\$4,727,715		
Low Income (51-80% AMI)	\$240,477	17.0	\$4,083,459		
Moderate Income (81-120% AMI)	\$175,558	19.2	\$3,369,338		
Total			\$12,180,512	150	\$81,203

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

Figure VI-4. Maximum Per-Unit Fee for Apartment Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Number Units in Prototype	Total Fee Per Unit
Very Low Income (<=50% AMI)	\$280,783	15.5	\$4,344,566		
Low Income (51-80% AMI)	\$240,477	15.1	\$3,635,157		
Moderate Income (81-120% AMI)	\$175,558	16.7	\$2,935,222		
Total			\$10,914,945	150	\$72,766

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

Figure VI-5. Maximum Fee per SF for Single-Family Detached Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Net Residential Area (SF)	Total Fee Per SF
Very Low Income (<=50% AMI)	\$280,783	2.7	\$768,368		
Low Income (51-80% AMI)	\$240,477	2.8	\$663,661		
Moderate Income (81-120% AMI)	\$175,558	3.1	\$547,599		
Total			\$1,979,628	30,000	\$66

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

Figure VI-6. Maximum Fee per SF for Single-Family Attached Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Net Residential Area (SF)	Total Fee Per SF
Very Low Income (<=50% AMI)	\$280,783	3.1	\$872,429		
Low Income (51-80% AMI)	\$240,477	3.1	\$753,541		
Moderate Income (81-120% AMI)	\$175,558	3.5	\$621,761		
Total			\$2,247,731	34,000	\$66

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

Figure VI-7. Maximum Fee per SF for Condominium Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Net Residential Area (SF)	Total Fee Per SF
Very Low Income (<=50% AMI)	\$280,783	16.8	\$4,727,715		
Low Income (51-80% AMI)	\$240,477	17.0	\$4,083,459		
Moderate Income (81-120% AMI)	\$175,558	19.2	\$3,369,338		
Total			\$12,180,512	270,000	\$45

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

Figure VI-8. Maximum Fee per SF for Apartment Prototype

Income Category	Average Affordability Gap (per Household)	Number Worker Households	Maximum Fee Revenues for Prototype	Net Residential Area (SF)	Total Fee Per SF
Very Low Income (<=50% AMI)	\$280,783	15.5	\$4,344,566		
Low Income (51-80% AMI)	\$240,477	15.1	\$3,635,157		
Moderate Income (81-120% AMI)	\$175,558	16.7	\$2,935,222		
Total			\$10,914,945	137,400	\$79

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

INCLUSIONARY HOUSING REQUIREMENTS

At present, inclusionary housing is one of the primary tools for providing affordable housing units in Menlo Park. The inclusionary housing program requires that 10 percent of new units in projects of between 5 and 20 units and 15 percent of new units in projects over 20 units must be affordable for very low, low, and/or moderate income households. If the City adopts a housing impact fee, it could replace its inclusionary housing program with an impact fee program that still allows developers the option of providing affordable units; or it could continue to require on-site units in for-sale projects.

The findings of the nexus analysis can be used to calculate the percentage of units provided on-site within a project that would fully mitigate the affordable housing impacts. The percentages are calculated for a combined total of market rate and affordable units. For example, a 150-unit market-rate condominium project is linked to 53 households that require affordable housing, for a total combined project of 203 units. The percentage is calculated as 53 divided by 203, for an inclusionary percentage of 35 percent.

Figure VI-9 below presents the results of the analysis for each of the ownership prototypes. The inclusionary percentage was not calculated for the apartment prototype due to legal restrictions on inclusionary housing policies for rental projects. The analysis supports maximum inclusionary percentages between 33 percent and 46 percent for the ownership prototypes. The analysis indicates that the nexus-based inclusionary percentage rates are higher than the City’s existing inclusionary policy. Therefore, the results of the nexus analysis support the current inclusionary requirements.

Figure VI-9. Calculated Inclusionary Rates Based on Potential Housing Impact Fees

	Households Requiring Affordable Housing	Total Market-Rate Units in Prototype	Combined Affordable and Market-Rate Units	Calculated Inclusionary Rate
Single-Family Detached	8.6	10	18.6	46%
Single-Family Attached	9.8	20	29.8	33%
Condominiums	53.0	150	203.0	35%

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

SUMMARY OF CONSERVATIVE ASSUMPTIONS

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

- **Prices and rental rates for new development.** Because there has been little new housing development completed in San Mateo County, the sale prices and rental rates for new market-rate housing are based on older market data. The rental rates and sale prices for projects that are coming on the market today are significantly higher. The use of lower prices and rents results reduces the total nexus fee calculation.
- **Economic impact analysis model.** The IMPLAN3 model only measures the impacts of new market-rate housing development in San Mateo County. It does not measure any of the impacts that could be occurring in other Bay Area counties. The economic impact analysis is modeled

on a household income change approach, which adjusts for income taxes and savings when calculating the employment impacts of new households.

- **Cost estimates for affordability gap analysis.** The affordability gap analysis measures the difference between what households can afford to pay for housing and the cost of new housing units. To ensure that the gap is conservative, the development cost estimates are based on the lower range of land and construction costs in San Mateo County. In many sub-areas of the county, including priority-development areas and downtown locations, land costs for housing sites may be higher, particularly under today's market conditions.
- **Affordability gap for owner households.** The calculation of the affordability gap for ownership households only considers moderate-income households. Low and very low income households are not considered in the calculation. This also results in a lower estimate of the maximum fee.
- **Feasibility analysis.** The analysis takes into account the financial feasibility of adding the maximum impact fee and reduced fee levels to the total cost of new development. The financial feasibility component of the analysis incorporates market-supportable assumptions about revenues, costs, land costs, and developer return expectations based on research on recent development trends. The results of financial analysis informed the final recommendations on the housing impact fee.
- **Comparison to other cities.** The Consultant Team researched existing impact fees and BMR policies in other nearby cities to determine the competitiveness of the maximum fee and reduced fee levels. The fee recommendations in this report incorporate the findings from the comparative analysis.
- **Overlap analysis.** The City is undertaking two impact fee nexus studies at the same time: the commercial linkage fee nexus study and the housing impact fee nexus study. To minimize the potential that some jobs could be double-counted by including the same worker households in both studies, the Consultant Team ensured that the recommended fees for the two programs (commercial linkage and housing fees) would – when combined –mitigate less than 100 percent of the total impact.

VII. FEASIBILITY AND POLICY CONSIDERATIONS

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

FINANCIAL FEASIBILITY ANALYSIS

Summary of Residential Prototypes

As discussed in more detail in Section III of this report, this nexus analysis is based on four residential prototypes: ownership single-family detached, single-family attached and condominiums, and rental apartments. Figure VII-1 summarizes the characteristics of the four development prototypes that were tested for financial feasibility. These prototypes are representative of the types of market rate housing development projects that can reasonably be expected in Menlo Park. The single-family detached units are wood siding wood frame buildings with an attached garage and a density of six units per acre. The average net residential area is 3,000 square feet per unit. The single-family attached units are Type V wood frame buildings with a tuck-under parking, a density of 13 units per acre, and an average net area per unit of 1,700 square feet. The condominiums are Type V wood frame buildings with underground parking and a density of 35 units per acre. The average net residential area is 1,800 square feet per unit. The apartment prototype building is Type V wood frame construction, with podium parking and a density of 43 units per acre. The average net area per unit is 916 square feet. Most of the apartment units are one and two bedrooms, with a smaller number of studios and three bedroom units.

Figure VII-1. Residential Prototypes

Building Characteristics	Single-Family Detached	Single-Family Attached	Condominiums	Apartments
Building Type	Wood Siding	Type V	Type V	Type V
Total Residential Units (a)	10	20	150	150
Avg. Size Unit in Square Feet (SF)	3,000	1,700	1,800	916
Net Square Footage (NSF)	30,000	34,000	270,000	137,400
Parking Type	Attached Garage	Tuck-Under	Underground	Podium
Efficiency Factor (b)	85%	85%	85%	65%
Gross Square Footage (GSF)	35,294	40,000	317,647	211,385
Floor Area Ratio (FAR) (c)	0.5	0.6	1.7	1.4
Land Area (SF)	70,588	66,667	186,851	150,989
Land Area (Acres)	1.62	1.53	4.29	3.47
Units per Acre	6	13	35	43

Notes:

- (a) Unit characteristics are described in more detail in Section III.
- (b) Ratio of leasable square footage to gross square footage.
- (c) Floor area ratio (FAR) measures density by dividing gross building area by total site area.

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

Fee Levels

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

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

Figure VII-2. Fee Levels per Unit for Prototypes

Prototype	Net Residential SF per Unit	Scenario 1 (Maximum Fee)	Scenario 2	Scenario 3	Scenario 4
Single-Family Detached	3,000	\$197,963	\$150,000	\$120,000	\$90,000
Single-Family Attached	1,700	\$112,387	\$85,000	\$68,000	\$51,000
Condominium	1,800	\$81,203	\$63,000	\$45,000	\$36,000
Apartments	916	\$72,766	\$45,800	\$36,640	\$27,480

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

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

Prototype	Net Residential SF per Unit	Scenario 1 (Maximum Fee)	Scenario 2	Scenario 3	Scenario 4
Single-Family Detached	3,000	\$66	\$50	\$40	\$30
Single-Family Attached	1,700	\$66	\$50	\$40	\$30
Condominium	1,800	\$45	\$35	\$25	\$20
Apartments	916	\$79	\$50	\$40	\$30

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

Methodology

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

Revenues

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

and rental rates of recently built (or sold) residential development in Menlo Park and neighboring cities. For single-family detached, single-family attached and condominium projects, the revenues are calculated by multiplying the unit count by the sales price. Single-family detached units are estimated at \$2,600,000, single-family attached at \$1,428,000, and condominium units at \$980,000. For rental projects, the revenues were estimated using an income capitalization approach. This valuation approach first estimates the annual net operating income (NOI) of the apartment prototype, which is the difference between total project income (annual rents) and project expenses, including operating costs²² and vacancies. The NOI is then divided by the capitalization rate (cap rate) to derive total project value. Figure VII-5 summarizes the calculations and data source used for estimating the value of the apartment prototype.

Figure VII-4. Prototype Sales Prices and Rents

Prototype	Unit Type	Number of Units	Net Area (SF)	Unit Sales Price/ Monthly Rent	Price or Rent per SF
Single-Family Detached (For-Sale)					
Wood siding wood frame	4 BD/4 BA	10	3,000	\$2,600,000	\$867
6 units per acre					
Attached garage					
Net Residential Area (Net SF)			30,000		
Single-Family Attached (For-Sale)					
Type V wood frame	3 BD/3 BA	20	1,700	\$1,428,000	\$840
13 units per acre					
Tuck-under podium parking					
Net Residential Area			34,000		
Condominiums (For-Sale)					
Type V wood frame	4 BD/3 BA	150	1,800	\$980,000	\$544
35 units per acre					
Subterranean parking					
Net Residential Area (Net SF)			270,000		
Apartments (Rental)					
Type V wood frame	Studio	9	600	\$2,700	\$4.50
43 units per acre	1 BD/1 to 2 BA	79	800	\$3,200	\$4.00
Podium parking	2 BD/1 to 2 BA	59	1,100	\$4,200	\$3.82
	3 BD/2 BA	3	1,300	\$4,000	\$3.08
Net Residential Area			137,400		
Average Net SF per Unit			916		

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

²² Operating costs were calculated based on the Institute of Real Estate Management Survey of Apartment Buildings in the San Francisco Metropolitan Statistical Area (MSA).

Figure VII-5. Apartment Revenue Calculations

Apartment Revenues	Calculation	Total
Gross Annual Rental Income (a)	Gross annual rents	\$6,442,800
Operating Expenses (b)	30 percent of income	(\$1,932,840)
Vacancy (c)	5 percent of income	(\$322,140)
Annual Net Operating Income (c)	Income less expenses and vacancy	\$4,187,820
Capitalization Rate (d)	5 percent	5.00%
Capitalized Value	Project value	\$83,756,400

Notes:

- (a) Average monthly rents multiplied by 12 months multiplied by unit count for each unit type.
- (b) Institute of Real Estate Management, San Francisco MSA Apartment Properties, 2011.
- (c) Assumes a vacancy rate of 5 percent in a stabilized rental market.
- (d) According to DTZ's San Francisco Real Estate Forecast 2015, the cap rate for apartments is approximately 5 percent.

Sources: IREM, DTZ, Strategic Economics, 2015.

Development Costs

Cost estimates for the residential prototypes include direct construction costs (site work, building costs, and parking), indirect costs, financing costs, and developer overhead and profit. Development cost estimates for the pro forma analysis are distinct from the cost estimates provided in the countywide affordability gap analysis. Direct building construction cost estimates are based on RS Means and project pro formas for recent projects in San Mateo County.²³ Soft costs and developer overhead/profit were calculated based on a review of similar project pro formas in the Bay Area. City fee calculations were provided by City staff. Each of the cost factors used in the analysis is summarized in Figure VII-6.

²³ The development cost estimates used in the pro forma analysis are slightly different from those used in the affordability gap analysis because they include more recent real estate data, and are more tailored for Menlo Park and Central San Mateo County, rather than an overall estimate for the entire county. Furthermore, the market-rate units are generally larger and costlier to build than the “modest” units described in the affordability gap analysis.

Figure VII-6. Development Cost Factors

Development Costs	Metric	
Direct Costs (a)		
Single-Family Detached	\$155	Per NSF
Single-Family Attached	\$150	Per NSF
Condominiums	\$225	Per NSF
Apartments	\$210	Per NSF
Indirect Costs (b)		
A&E & Consulting	6.00%	of direct costs
Permits & Fees (Excl. Housing) (c)	Varies by prototype	
Taxes, Insurance, Legal & Accounting	3.00%	of direct costs
Other (d)	3.00%	of direct costs
Contingency	5.00%	of indirect costs
Total Indirect Costs		
Financing Costs (b)		
Loan to Cost Ratio (LTC)	80%	of total costs
Loan Interest Rate	6%	annual rate
Compounding Period	12	months
Construction/Absorption Period (e)	12 to 24	months
Utilization Rate	55%	of loan
Loan Fees	2%	of loan
Developer Overhead & Profit	12%	of total costs (excl. land)

Notes:

- (a) Direct costs include site work, building construction, and parking costs of \$30,000 per space for underground parking and \$25,000 per space for podium parking. Costs estimates are based on review of Bay Area pro formas for similar projects and data from RS Means.
- (b) Based on review of similar project pro formas in the Bay Area and interviews with developers.
- (c) Permits & fees are a generalized estimate of costs based on prototypes, calculated by City staff. Permits and fees for actual projects vary depending on many factors.
- (d) Other soft costs include marketing, personal property, environmental studies, etc.
- (e) Absorption periods are estimated at 24 months for apartments, condominiums and townhouses; and 18 months for single-family subdivisions.

Sources: RS Means, 2014; Similar pro formas; Menlo Park, 2015; Strategic Economics, 2015.

Land Value

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

To determine the land value of sites zoned for lower density uses (single-family detached and single family attached) and higher density multi-family residential uses (condominiums and rental apartments), the Consultant Team analyzed recent sales transactions in Southern San Mateo County and Northern Santa Clara County, and reviewed third-party property appraisals.²⁴ Figure VII-7 illustrates the results of the land value analysis for lower density single-family detached and single family attached residential uses, while Figure VII-8 shows the value of properties zoned for higher density multi-family residential uses. For lower density residential uses, values range considerably depending on location and size, from \$38 per square foot for the lower quartile, to \$119 per square foot for the upper quartile. For the financial analysis, the estimated land value is \$35 to \$120 for lower density sites. For higher-density multi-family housing, the value of land transactions ranges from \$72 per square foot for the lower quartile to \$192 per square foot for the upper quartile, with the maximum value at \$236 per square foot. For the purposes of the financial analysis, the estimated land value is \$150 to \$250 per square foot for higher density multi-family development, including condominiums and apartments. The higher end of the range for multifamily land values is higher than the maximum value (\$250 instead of \$236 per square foot) in order to account for recent increases in land prices, and to ensure that the financial feasibility results do not under-estimate the value of land from the perspective of a developer. For all prototypes, the market value of land is presented as a range because the land value of properties is likely to vary depending on location, size, and other conditions.

²⁴ The land value assumptions utilized in the pro forma analysis are different from the affordability gap analysis in two ways: 1) they include more recent transactional data than the affordability gap analysis, which was completed in July 2014; and 2) they are tailored to Menlo Park and Central San Mateo County, unlike the affordability gap estimate, which is a countywide estimate.

Figure VII-7. Single-Family Vacant Land Sales Transactions in Southern San Mateo County

Site Address	Location	Sale Price	Lot Area	Price/ SF Land
76 Tuscaloosa Ave	Atherton	\$4,150,000	42,253	\$98.22
190 Almendral Ave	Atherton	\$4,550,000	43,560	\$104.45
12 Cowell Ln	Atherton	\$6,350,000	43,580	\$145.71
95 Faxon Rd	Atherton	\$18,900,000	130,680	\$144.63
270 Atherton Ave	Atherton	\$11,000,000	102,366	\$107.46
89 Tuscaloosa Ave	Atherton	\$4,200,000	28,260	\$148.62
81 Faxon Rd	Atherton	\$9,800,000	66,647	\$147.04
77 Fairview Ave	Atherton	\$3,648,000	45,564	\$80.06
97 Santiago Ave	Atherton	\$4,200,000	62,291	\$67.43
237 Atherton Ave	Atherton	\$53,000,000	414,691	\$127.81
70 Elena Ave	Atherton	\$4,450,000	47,916	\$92.87
96 Ridge View Dr	Atherton	\$7,800,000	70,883	\$110.04
1691 Bay Laurel Dr	Menlo Park	\$3,500,000	17,400	\$201.15
1652 Bay Laurel Dr	Menlo Park	\$2,295,000	13,504	\$169.95
1976 Menalto Ave	Menlo Park	\$1,041,000	7,884	\$132.04
205 Cervantes Rd	Portola Valley	\$1,900,000	60,548	\$31.38
5 Buck Meadow Dr	Portola Valley	\$1,205,000	44,431	\$27.12
9 Buck Meadow Dr	Portola Valley	\$1,990,000	75,800	\$26.25
5 Blue Oaks Ct	Portola Valley	\$4,100,000	94,525	\$43.37
4 Blue Oaks Ct	Portola Valley	\$4,100,000	100,188	\$40.92
Ramona Rd	Portola Valley	\$998,000	15,246	\$65.46
130 Golden Hills Dr	Portola Valley	\$2,750,000	86,205	\$31.90
Redberry Rdg	Portola Valley	\$2,750,000	54,600	\$50.37
17 Redberry Rdg	Portola Valley	\$2,350,000	86,086	\$27.30
3038 Oak Knoll Dr	Menlo Park	\$1,650,000	11,979	\$137.74
3058 Oak Knoll Dr	Menlo Park	\$1,650,000	11,979	\$137.74
Redwood Ave	Menlo Park	\$350,000	13,939	\$25.11
65 Palomar Oaks Ln	Menlo Park	\$1,135,000	30,003	\$37.83
266 Alameda De Las Pulgas	Menlo Park	\$885,000	13,250	\$66.79
N/A	Menlo Park	\$320,000	10,868	\$29.44
1525 Connecticut Dr	Menlo Park	\$590,000	14,625	\$40.34
3724 Laurel Way	Menlo Park	\$305,000	8,200	\$37.20
2155 Greenways Dr	Woodside	\$1,390,000	22,782	\$61.01
215 Grandview Dr	Woodside	\$550,000	25,700	\$21.40
834 W California Way	Woodside	\$1,527,500	14,810	\$103.14
834 W California Way	Woodside	\$1,527,500	14,375	\$106.26
834 W California Way	Woodside	\$1,527,500	19,166	\$79.70
231 Winding Way	Woodside	\$6,200,000	117,176	\$52.91
125 Ware Rd	Woodside	\$576,000	15,682	\$36.73
Summary Statistics				
Lower Quartile (25%)				\$37.51
Median Value				\$67.11
Upper Quartile (75%)				\$118.92

Source: CoreLogic, 2015; Strategic Economics, 2015.

Figure VII-8. Multi-Family Vacant Land Sales Transactions in Southern San Mateo County and Northern Santa Clara County, 2010-2014

Site Address	Location	Price	Lot Area	Price/ SF Land
3639 Haven Avenue	Menlo Park	\$4,400,000	65,253	\$67
1679 Kentfield Avenue	Redwood City	\$2,250,000	43,574	\$52
755-763 Hamilton Avenue	Menlo Park	\$1,851,300	21,780	\$85
105 5th Avenue	Redwood City	\$1,200,000	18,000	\$67
389 El Camino Real	Menlo Park	\$12,200,000	53,579	\$228
1300 El Camino Real	Menlo Park	\$24,500,000	148,165	\$165
2963 El Camino Real	Redwood City/Uninc. County	\$2,685,000	11,400	\$236
1275 El Camino Real	Menlo Park	\$3,600,000	17,960	\$200
Page Mill Rd.	Palo Alto	\$3,959,000	26,926	\$147
1275 El Camino Real	Menlo Park	\$3,600,000	17,960	\$200
3877 El Camino Real	Palo Alto	\$4,450,000	32,825	\$136
536 N Wishman Rd	Mountain View	\$1,050,000	7,000	\$150
1958 Latham St, Mountain View, CA 94040	Mountain View	\$1,600,000	16,600	\$96
3633 Haven Avenue	Menlo Park	\$10,600,000	208,652	\$51
Lower Quartile (25%)				\$72
Average Value				\$134
Upper Quartile (75%)				\$192

Source: City of Menlo Park, 2015; Property appraisals; DataQuick, 2015; Loopnet, 2015; Strategic Economics, 2015.

Financial Feasibility Results

Figures VII-9 and VII-10 provide the pro forma for the single-family detached, single-family attached, condominium and apartment prototypes. Below is a discussion of the findings.

Single-Family Detached

The feasibility analysis indicates that at current market prices, without the addition of new impact fees, the single-family detached prototype would have revenues of \$26 million, with a total development cost of \$7.2 million. The difference between the revenues and costs is the residual land value, which is estimated at \$266 per square foot. This prototype, with no additional impact fees, yields a residual land value that exceeds the threshold for feasibility in Menlo Park, which is between \$35 and \$120 per square foot.

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

- The maximum impact fee of \$66 per square foot raises development costs from \$7.2 million to \$9.2 million. This cost increase results in a residual land value of \$238 per square foot, a value over the financial feasibility threshold in Menlo Park.
- Scenario 2, an impact fee set at \$50 per square foot increases development costs to \$8.7 million. The residual land value under this scenario is \$245 per square foot, which exceeds the requirement to be financially feasible.
- Scenario 3, a fee level of \$40 per square foot increases development costs to \$8.4 million. The residual land value under this fee scenario is \$249 per square foot, which is higher than the threshold for financial feasibility.
- A fee level set at \$30 per square foot results in total development costs of \$8.1 million, and a residual land value of \$253 per square foot. As in the other scenarios, this land value would be financially feasible.

Single-Family Attached

According to the feasibility analysis, with no added nexus fees, the single-family attached prototype would have total development costs of \$8.6 million and a sale value of \$28.6 million. The residual land value, without nexus fees, is then estimated at \$300 per square foot, and exceeds the threshold on financial feasibility, defined as between \$35 and \$120.

Potential impact fees at different levels would impact financial feasibility in the following ways:

- The maximum impact fee of \$66 per square foot brings development costs from to \$10.8 million. This cost increase results in a residual land value of \$266 per square foot, which is over the threshold for financial feasibility in Menlo Park.
- Scenario 2, a \$50 per square foot nexus fee, increases development costs to \$10.3 million. Under this fee scenario, the residual land value is \$275 per square foot, which exceeds the residual land value necessary to be financially feasible.
- Scenario 3, an impact fee of \$40 per square foot, increases development costs to \$9.9 million. In this case, the residual land value is \$280 per square foot, which is also financially feasible.

- Scenario 4, a fee level set at \$30 per square foot, brings total development costs to \$9.6 million, and the residual land value to \$285 per square foot. This land value would meet the requirement to be financially feasible.

Condominiums

The feasibility analysis shows that, following current market prices and without new impact fees, the condominium prototype would have revenues of \$147 million, with a total development cost of \$103.9 million. The difference between the revenues and costs is the residual land value, which is estimated at \$231 per square foot. The residual land value associated with this prototype exceeds the threshold for feasibility in Menlo Park, which is between \$150 and \$250 per square foot.

Considering different housing impact fee levels, the financial feasibility analysis yields the following results:

- The full justified impact fee of \$45 per square foot raises development costs from \$103.9 million to \$116 million. This cost increase results in a residual land value of \$166 per square foot, which is situated within the threshold for financial feasibility in Menlo Park, which was determined to be between \$150 and \$250 per square foot.
- Scenario 2, a reduced impact fee set at \$35 per square foot, raises development costs to \$113.3 million. The residual land value under this fee scenario is \$180 per square foot, which makes the project financially feasible.
- Scenario 3, a nexus fee at \$25 per square foot, results in development costs of \$110.6 million, and a residual land value of \$195 per square foot, which is financially feasible.
- Scenario 4, a fee level set at \$20 per square foot results in a total development cost of \$109.3 million, and a residual land value of \$202 per square foot. This fee scenario would also be financially feasible.

Apartments

For apartments, the financial analysis shows that under current market conditions, without a nexus fee on affordable housing, a prototypical apartment development costs approximately \$50.1 million, with a total project value of \$83.8 million. The residual land value on this prototype, excluding a nexus fee, is estimated at \$223 per square feet, meeting the threshold for financial feasibility, defined as between \$150 to \$250 per square foot.

The following describes the feasibility of potential housing impact fees at different levels for apartments:

- Scenario 1, the maximum nexus fee of \$79 per square foot brings total development costs up to nearly \$61 million. This cost increase results in a residual land value of \$151 per square foot, which is marginally feasible.
- Scenario 2, a nexus fee of \$50 per square foot, increases development costs to \$57 million. The residual land value under this fee scenario is \$177 per square foot, which is aligned with the current market value for multi-family land, making it financially feasible.

- Scenario 3, a housing impact fee level of \$40 per square foot, increases development costs to \$55.6 million. The residual land value in this scenario is \$186 per square foot, which falls within the range required for this project to be feasible.
- Scenario 4, a fee level of \$30 per square foot increases development costs to \$54.3 million, resulting in a residual land value of \$195 per square foot. This fee level would also be financially feasible, falling within the range of the market value for multi-family land in Menlo Park.

Figure VII-9. Pro Forma Model Results for Single-Family Detached and Attached Prototypes

	Single-Family Detached		Single-Family Attached	
Development Costs (Excl. Land & Nexus Fee)	per Unit	Total	per Unit	Total
Direct Costs (a)				
Building & On-Site Improvements	\$465,000	\$4,650,000	\$255,000	\$5,100,000
Building & Onsite per NSF		\$155		\$150
Parking	Incl. above	Incl. above	Incl. above	Incl. above
Total Direct Costs	\$465,000	\$4,650,000	\$255,000	\$5,100,000
Total Direct Costs per NSF		\$155		\$150
Indirect Costs (a)				
A&E & Consulting	\$27,900	\$279,000	\$15,300	\$306,000
Permits & Fees (Excl. Nexus fee) (b)	\$91,908	\$919,077	\$71,278	\$1,425,567
Taxes, Insurance, Legal & Accounting	\$13,950	\$139,500	\$7,650	\$153,000
Other Indirect Costs	\$13,950	\$139,500	\$7,650	\$153,000
Contingency	\$7,385	\$73,854	\$5,094	\$101,878
Total Indirect Costs	\$155,093	\$1,550,931	\$106,972	\$2,139,446
Financing Costs (a)	\$26,292	\$262,919	\$20,126	\$402,513
Developer Overhead & Profit (a)	\$77,566	\$775,662	\$45,852	\$917,035
Total Development Costs	\$723,951	\$7,239,512	\$427,950	\$8,558,994
Total Development Costs (per NSF)		\$241		\$252
Income				
Gross Income/Sales Proceeds	\$2,600,000	\$26,000,000	\$1,428,000	\$28,560,000
Less: Operating/Sales Expenses & Vacancy				
Net (Operating or Sales) Income	\$2,600,000	\$26,000,000	\$1,428,000	\$28,560,000
Capitalized Value/Sales Value (c)	\$2,600,000	\$26,000,000	\$1,428,000	\$28,560,000
Residual Land Value Analysis				
Total Development Costs (TDC) Except Land With Various Levels of Nexus Fee	Nexus Fee per NSF	TDC incl. Nexus Fee	Nexus Fee per NSF	TDC incl. Nexus Fee
No Fee	\$0	\$7,239,512	\$0	\$8,558,994
Scenario 1: Max Fee	\$66	\$9,219,512	\$66	\$10,802,994
Scenario 2	\$50	\$8,739,512	\$50	\$10,258,994
Scenario 3	\$40	\$8,439,512	\$40	\$9,918,994
Scenario 4	\$30	\$8,139,512	\$30	\$9,578,994
Residual Land Value per Sq. Ft. at Various Nexus Fee Levels	Nexus Fee per NSF	Residual Land Value per SF	Nexus Fee per NSF	Residual Land Value per SF
No Fee	\$0	\$266	\$0	\$300
Scenario 1: Max Fee	\$66	\$238	\$66	\$266
Scenario 2	\$50	\$245	\$50	\$275
Scenario 3	\$40	\$249	\$40	\$280
Scenario 4	\$30	\$253	\$30	\$285
Nexus Fee as Percentage of Total Development Costs	Nexus Fee per NSF	Fee as % of TDC	Nexus Fee per NSF	Fee as % of TDC
No Fee	\$0	0.00%	\$0	0.00%
Scenario 1: Max Fee	\$66	21.48%	\$66	20.77%
Scenario 2	\$50	17.16%	\$50	16.57%
Scenario 3	\$40	14.22%	\$40	13.71%
Scenario 4	\$30	11.06%	\$30	10.65%
Current Land Values/ Threshold for Feasibility		\$35-120		\$35-120

Notes:

(a) See Figure VII-5.

(b) This represents a generalized estimate of the fee and permit costs for each prototype, calculated by city staff. Actual fee and permit costs for development projects will vary depending on many factors.

(c) See Figure VII-4.

(d) Feasibility threshold varies by density of prototype. For single-family and townhomes, the threshold is \$35 - \$120 per square foot. For multi-family rental apartments and condominiums, the threshold is \$170 to \$250 per square foot

Acronyms:

SF: square feet

NSF: net square foot

TDC: total development costs

Source: Strategic Economics, 2015.

Figure VII-10. Pro Forma Model Results for Condominium and Apartment Prototypes

	Condominiums		Apartments	
Development Costs (Excl. Land & Nexus Fee)	per Unit	Total	per Unit	Total
Direct Costs (a)				
Building & On-Site Improvements	\$405,000	\$60,750,000	\$192,360	\$28,854,000
Building & Onsite per NSF		\$225		\$210
Parking	\$45,000	\$6,750,000	\$37,500	\$5,625,000
Total Direct Costs	\$450,000	\$67,500,000	\$229,860	\$34,479,000
Total Direct Costs per NSF		\$250		\$251
Indirect Costs (a)				
A&E & Consulting	\$27,000	\$4,050,000	\$13,792	\$2,068,740
Permits & Fees (Excl. Nexus fee) (b)	\$68,506	\$10,275,879	\$19,405	\$2,910,794
Taxes, Insurance, Legal & Accounting	\$13,500	\$2,025,000	\$6,896	\$1,034,370
Other Indirect Costs	\$13,500	\$2,025,000	\$6,896	\$1,034,370
Contingency	\$6,125	\$918,794	\$2,349	\$352,414
Total Indirect Costs	\$128,631	\$19,294,673	\$49,338	\$7,400,687
Financing Costs (a)	\$39,810	\$5,971,473	\$19,209	\$2,881,322
Developer Overhead & Profit (a)	\$74,213	\$11,131,938	\$35,809	\$5,371,321
Total Development Costs	\$692,654	\$103,898,084	\$334,216	\$50,132,331
Total Development Costs (per NSF)		\$385		\$365
Income				
Gross Income/Sales Proceeds	\$980,000	\$147,000,000	\$42,952	\$6,442,800
Less: Operating/Sales Expenses & Vacancy			\$15,033	\$2,254,980
Net (Operating or Sales) Income	\$980,000	\$147,000,000	\$27,919	\$4,187,820
Capitalized Value/Sales Value (c)	\$980,000	\$147,000,000	\$558,376	\$83,756,400
Residual Land Value Analysis				
Total Development Costs (TDC) Except Land With Various Levels of Nexus Fee	Nexus Fee per NSF	TDC incl. Nexus Fee	Nexus Fee per NSF	TDC incl. Nexus Fee
No Fee	\$0	\$103,898,084	\$0	\$50,132,331
Scenario 1: Max Fee	\$45	\$116,048,084	\$79	\$60,986,931
Scenario 2	\$35	\$113,348,084	\$50	\$57,002,331
Scenario 3	\$25	\$110,648,084	\$40	\$55,628,331
Scenario 4	\$20	\$109,298,084	\$30	\$54,254,331
Residual Land Value per Sq. Ft. at Various Nexus Fee Levels	Nexus Fee per NSF	Residual Land Value per SF	Nexus Fee per NSF	Residual Land Value per SF
No Fee	\$0	\$231	\$0	\$223
Scenario 1: Max Fee	\$45	\$166	\$79	\$151
Scenario 2	\$35	\$180	\$50	\$177
Scenario 3	\$25	\$195	\$40	\$186
Scenario 4	\$20	\$202	\$30	\$195
Nexus Fee as Percentage of Total Development Costs	Nexus Fee per NSF	Fee as % of TDC	Nexus Fee per NSF	Fee as % of TDC
No Fee	\$0	0.00%	\$0	0.00%
Scenario 1: Max Fee	\$45	10.47%	\$79	17.80%
Scenario 2	\$35	8.34%	\$50	12.05%
Scenario 3	\$25	6.10%	\$40	9.88%
Scenario 4	\$20	4.94%	\$30	7.60%
Current Land Values/ Threshold for Feasibility		\$150 - \$250		\$150 - \$250

Notes:

(a) See Figure VII-5.

(b) This represents a generalized estimate of the fee and permit costs for each prototype, calculated by city staff. Actual fee and permit costs for development projects will vary depending on many factors.

(c) See Figure VII-4.

(d) Feasibility threshold varies by density of prototype. For single-family and townhomes, the threshold is \$35 - \$120 per square foot. For multi-family rental apartments and condominiums, the threshold is \$170 to \$250 per square foot

Acronyms:

SF: square feet

NSF: net square foot

TDC: total development costs

Source: Strategic Economics, 2015.

ADDITIONAL POLICY CONSIDERATIONS

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

- How much residential fees would increase with a new residential impact fee;
- How a residential impact fee in Menlo Park would compare with those in neighboring jurisdictions;
- How the residential impact fee compares with existing BMR policies; and
- How the revenues generated from the new residential impact fee can be used.

A discussion of each of these topics is presented below.

Comparison to Existing Fees on Residential Development

Figure VII-11 presents information on current city fees charged on the four residential prototypes included in this nexus analysis. It also demonstrates what happens to the fee levels under four residential impact fee scenarios.

Currently, Menlo Park's fees for the residential prototypes are estimated to range from \$19,405 for an apartment unit to \$91,908 for a single family detached unit not including the costs of the current BMR requirement.²⁵ Once the nexus-based residential impact fees at various levels are added to existing fees, the total fees increase as presented in Figure VII-11. The maximum fee (Scenario 1) increases total fees by about 200 to over 400 percent, depending on the prototype. The lower fee scenarios would also significantly increase total development fees.

²⁵ The fee estimates presented above represent the best approximations available from Menlo Park.

Figure VII-11. Menlo Park Total Residential Fees Under Selected Fee Scenarios

	Single-Family Detached	Single-Family Attached	Condominiums	Apartments
Number of Units in Prototype	10	20	150	150
Average Unit Size	3,000	1,700	1,800	916
Total Existing City Fees and Permits for Prototype (Excluding Nexus Fees)	\$919,077	\$1,425,567	\$10,275,879	\$2,910,794
Existing Fees and Permits per Unit (Excluding Nexus Fees)	\$91,908	\$71,278	\$68,506	\$19,405
Existing Fees and Permits per SF (Excluding Nexus Fees)	\$31	\$42	\$38	\$21
Fee Scenario 1: Maximum Fees				
Nexus Fee Per Unit	\$197,963	\$112,387	\$81,203	\$72,766
Total Nexus Fees for Prototype	\$1,979,628	\$2,247,731	\$12,180,512	\$10,914,945
Combined Existing and Nexus Fees for Prototype	\$2,898,705	\$3,673,298	\$22,456,391	\$13,825,739
Combined Fees Per Unit	\$289,870	\$183,665	\$149,709	\$92,172
Combined Fees Per SF	\$97	\$108	\$83	\$101
Fee Scenario 2				
Nexus Fee Per Unit	\$150,000	\$85,000	\$63,000	\$45,800
Total Nexus Fees for Prototype	\$1,500,000	\$1,700,000	\$9,450,000	\$6,870,000
Combined Existing and Nexus Fees for Prototype	\$2,419,077	\$3,125,567	\$19,725,879	\$9,780,794
Combined Fees Per Unit	\$241,908	\$156,278	\$131,506	\$65,205
Combined Fees Per SF	\$81	\$92	\$73	\$71
Fee Scenario 3				
Nexus Fee Per Unit	\$120,000	\$68,000	\$45,000	\$36,640
Total Nexus Fees for Prototype	\$1,200,000	\$1,360,000	\$6,750,000	\$5,496,000
Combined Existing and Nexus Fees for Prototype	\$2,119,077	\$2,785,567	\$17,025,879	\$8,406,794
Combined Fees Per Unit	\$211,908	\$139,278	\$113,506	\$56,045
Combined Fees Per SF	\$71	\$82	\$63	\$61
Fee Scenario 4				
Nexus Fee Per Unit	\$90,000	\$51,000	\$36,000	\$27,480
Total Nexus Fees for Prototype	\$900,000	\$1,020,000	\$5,400,000	\$4,122,000
Combined Existing and Nexus Fees for Prototype	\$1,819,077	\$2,445,567	\$15,675,879	\$7,032,794
Combined Fees Per Unit	\$181,908	\$122,278	\$104,506	\$46,885
Combined Fees Per SF	\$61	\$72	\$58	\$51

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

Comparison to Neighboring Jurisdictions

It is difficult to show an accurate comparison of fees in neighboring jurisdictions at this time because most cities in San Mateo County are participating in this project to consider adopting new impact fees or updating existing impact fees and therefore current fee levels may not accurately reflect future fee levels. Figure VII-12 provides comparative information of the potential fees under different scenarios in Menlo Park with other jurisdictions in San Mateo, Santa Clara, and San Francisco Counties that have adopted residential impact fees on rental and for-sale housing units. The fee scenarios for Menlo Park are presented on a per square foot and per unit basis and as a percentage of the sales value for each prototype, in order to allow a comparison of each fee scenario to the varying types of fees in neighboring jurisdictions and to Menlo Park's existing in-lieu fee.

If the maximum impact fee levels calculated for Menlo Park were adopted, they would exceed the residential impact fees currently charged in the neighboring jurisdictions in San Mateo and Santa Clara Counties listed in Figure VII-12. However, San Francisco has adopted fees ranging from \$199,000 to \$522,000 per unit, depending on the unit size, which are significantly higher than the maximum fee levels calculated for Menlo Park. If Menlo Park adopted the Scenario 2 fee levels, its fees would place it at the top end of the range for all unit types when compared to other cities in San Mateo and Santa Clara Counties; however, its fees would be somewhat comparable to those charged in some cases in San Carlos, and possibly Sunnyvale's, depending on sales prices. As shown in the figure, all of the fee scenarios analyzed for Menlo Park are higher than the City's existing in-lieu fee when considered as a percentage of sales value, although the lowest fee scenario is only slightly higher.

Figure VII-12. Comparison with Fees in Neighboring Jurisdictions

	Single Family Detached	Single Family Attached	Condominiums	Apartments	Date Fee Was Adopted
Menlo Park Fee Scenarios					
Scenario 1 (Max): Per SF	\$66	\$66	\$45	\$79	
Scenario 1 (Max): Per Unit	\$197,963	\$112,387	\$81,203	\$72,766	N/A
Scenario 1 (Max): % Sales Value	7.6%	7.9%	8.3%	13.0%	
Scenario 2: Per SF	\$50	\$50	\$35	\$50	
Scenario 2: Per Unit	\$150,000	\$85,000	\$63,000	\$45,800	N/A
Scenario 2: % Sales Value	5.8%	6.0%	6.4%	8.2%	
Scenario 3: Per SF	\$40	\$40	\$25	\$40	
Scenario 3: Per Unit	\$120,000	\$68,000	\$45,000	\$36,640	N/A
Scenario 3: % Sales Value	4.6%	4.8%	4.6%	6.6%	
Scenario 4: Per SF	\$30	\$30	\$20	\$30	
Scenario 4: Per Unit	\$90,000	\$51,000	\$36,000	\$27,480	N/A
Scenario 4: % Sales Value	3.5%	3.6%	3.7%	4.9%	
Impact Fees					
Cupertino	\$15/SF	\$16.50/SF (a)	\$20/SF	\$25/SF	2015
Daly City	\$14/SF	\$18/SF (b)	\$22/SF	\$25/SF	2014
East Palo Alto	\$22/SF	\$22/SF	\$22-\$44/SF (c)	\$22/SF	2014
Mountain View	N/A	N/A	N/A	\$17/SF	2015
Redwood City (d)	\$25/SF	\$25/SF	\$20/SF	\$20/SF	2015
San Carlos (e)	\$23.54-\$43.54/SF	\$20.59-\$42.20/SF	\$20.59-\$42.20/SF	\$23.54-\$43.54/SF	2010
San Francisco (f)	\$199,698-\$522,545/unit	\$199,698-\$522,545/unit	\$199,698-\$522,545/unit	\$199,698-\$522,545/unit	2015
San Jose	N/A	N/A	N/A	\$17/SF (g)	2014
Sunnyvale	N/A	N/A	N/A	\$17/SF (h)	2015
Inclusionary Policies and In-Lieu Fees					
Menlo Park (i)	3% of Sales Price	3% of Sales Price	3% of Sales Price	N/A	2013
Mountain View	3% of Sales Price	3% of Sales Price	3% of Sales Price	N/A	2015
San Jose (j)	Inclusionary @15% or \$17/SF in-lieu fee	Inclusionary @15% or \$17/SF in-lieu fee	Inclusionary @15% or \$17/SF in-lieu fee	N/A	2014
Sunnyvale	7% of Sales Price	7% of Sales Price	7% of Sales Price	N/A	2015

Notes:

(a) This fee applies to small lot single family and townhomes.

(b) This fee applies to townhomes.

(c) Fee ranges from \$22 per square foot for for-sale housing without structured parking to \$44 per square foot for housing with structured parking.

(d) The fee applies to projects over 4 units, and is reduced by 25% if all construction workers are paid at the Area Standard Wage, defined as the general prevailing wage determinations for San Mateo County.

(e) Fees shown as ranges. Actual fees charged depend on project size.

(f) Fee charged depends on unit size (number of bedrooms).

(g) Fee goes into effect in 2016. Developments approved before July 2016 are exempt with a longer exemption for downtown development.

(h) Fees for projects that are between 4 and 7 units pay 50 percent of this fee.

(i) Existing in lieu fee.

(j) Inclusionary policy and in-lieu fee apply to for-sale developments of more than 20 units.

Sources: The Non-Profit Housing Association of Northern California; City of San Carlos Municipal Code; Vernazza Wolfe Associates, Inc; Strategic Economics, 2015.

The potential fee scenarios can also be compared with existing residential impact fees in other Bay Area cities outside of San Mateo County and Santa Clara County for regional context. This list is not an exhaustive inventory of all Bay Area cities with residential impact fees, but it provides information about many cities that have fees on housing. As shown in Figure VII-13, impact fees in other Bay Area cities vary significantly from city to city.

Figure VII-13. Existing Housing Impact Fees in Bay Area Cities

City	Project Type	Amount
Berkeley	Rental Development	\$28,000 per unit (\$8,000 discount for eligible projects)
Emeryville	Rental Residential Projects	\$28,000 per dwelling unit
Fremont	For-Sale and Rental Development	\$19.50 per habitable SF \$22.50 per habitable SF for single family homes on lots 6,000 SF or greater.
Napa	For Sale and Rental Development	Single Family: \$ 2.20 per SF Condo: \$2.20 per SF Rental: \$3.75 per sq.
Pleasanton	For-Sale and Rental Development	Single Family (over 1,500 SF): \$10,880 per unit Single Family (1,500 SF or less) and Multi-family (Apt. or Condo): \$2,696 per unit Adjusted annually based on CPI

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

Comparison of Fee to Existing BMR Policy

Menlo Park currently has a Below Market Rate (BMR) Housing Program in place for ownership housing. Under the existing program, for projects between 5 and 20 units, 10 percent of units must be affordable to very low, low, and/or moderate income households. For projects larger than 20 units, 15 percent of units must be affordable to very low, low, and/or moderate income households. While the City’s primary objective is for BMR housing units to be built on-site, it does allow for the payment of in-lieu fees. The in-lieu fee is set at three percent of the sales price of the market rate units, as shown in Figure VII-12. If a new residential impact fee is adopted in Menlo Park for ownership units, the fee scenarios would be equivalent to between 3.5 percent and 8.3 percent of sales price, as indicated in Figure VII-12.

In addition to the BMR Housing Program, the City also has an existing commercial linkage fee for buildings over 10,000 square feet in size. The current fees are \$15.57 per square foot for office and research and development (R&D) uses and \$8.45 per square foot for all other commercial and industrial uses. Rather than pay, the fee the City prefers that projects provide BMR housing on-site (if allowed by zoning), or off-site. A density bonus of up to 15 percent may be permitted if BMR housing is provided on-site. However, commercial projects typically pay the fee. The City is in the process of conducting a nexus study to potentially update its commercial linkage fees.

The revenues from the in-lieu fee and commercial linkage fee are deposited in the BMR Housing Fund, which is a separate City fund set aside for the specific purpose of assisting the development of affordable housing units and programs for very low, low, and moderate income households.

Use of Fee Revenues

The revenues generated from a new residential impact fee could be used to augment the existing BMR Housing Fund. The existence of additional local revenue sources such as the residential impact fees can help make certain projects more competitive for outside funding. Revenues generated from a residential impact fee must be spent on housing that benefits the workforce, since the funds stem from affordable housing impacts related to new employment. Furthermore, the funds must target very low, low, and moderate income households, the income groups that are included in this nexus study.

The revenues to be collected from a residential impact fee provide an important source of local funding; however, fee revenues do not generally cover the entire funding gap encountered by sponsors of new affordable housing. Additional funding from a variety of sources will remain critical. These funding sources typically include public subsidies from the City of Menlo Park and San Mateo County, equity from the Low Income Housing Tax Credits, and financing from conventional lenders.

Potential for Overlap Between Residential and Commercial Fees

The City is also undertaking a commercial linkage nexus study simultaneously, and may soon consider whether to modify its existing commercial linkage fee in a parallel process to the residential impact fee considered in this report. One issue that may arise if a city considers the adoption of both fees is whether there is any overlap between the two impact fees, resulting in potential “double-counting” of impacts.

- The commercial linkage fee study examines jobs located in new commercial buildings including office/ R&D/ medical office buildings, retail/ restaurants/ services, and hotels. The nexus analysis then calculated the average wages of the workers associated with each commercial building to derive the annual income of the new worker households. The analysis determines the area median income (AMI) level of the new worker households to identify the number of worker households that would require affordable housing.
- The residential impact fee nexus analysis examines households buying or renting new market rate units in the jurisdiction. The household expenditures by these new residents have an economic impact in the county, which can be linked to new jobs. The nexus analysis quantified the jobs linked to new household spending, and then calculated the wages of new workers and the household income of new worker households. Each worker household was then categorized by AMI to determine the number of households that require affordable housing.

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

There is potential that some jobs could be counted in both analyses, and that the two programs may overlap in mitigating the affordable housing demand from the same worker households. Each of the proposed fees is required to mitigate no more than 100 percent of the demand for affordable units by new worker households. However, the recommendations presented in this study (and in the commercial linkage fee study) do not exceed the nexus.

The calculations below show that the nexus fee levels recommended in both studies represent less than the justified nexus amount.

- First, the recommended linkage fees are unlikely to be set at the maximum justified nexus amount for all prototypes. Therefore, the commercial linkage fee would mitigate less than 100 percent of the demand for affordable units generated by the new non-residential space.
- Secondly, the recommended residential impact fee levels are also less than 100 percent of the maximum fee level supported by the residential nexus analysis. Therefore, the combined programs (commercial and housing fees) would mitigate less than 100 percent of the maximum amount justified, and would therefore mitigate less than 100 percent of the impact even if there were overlap in the jobs counted in the two nexus analyses.

Administrative Issues

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

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

- The first option is the Consumer Price Index (CPI) Shelter component. The shelter component of the CPI covers costs for rent of primary residence, lodging away from home, owner's equivalent rent of primary residence, and household insurance. Of the total shelter index, costs associated with the owner's equivalent rent of primary residence constitute 70 percent of total costs entered into the index.
- A second option to adjust the fee for annual inflation is the construction cost index published in the Engineering News Record (ENR). This index is routinely used to update other types of impact fees. Cost index information for the San Francisco region, the smallest geographical area available for this purpose, is available on an annual basis. The ENR cost index measures inflation in construction costs, but it does not incorporate changes in land costs or public fees charged on new development.

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

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

VIII. GLOSSARY OF TERMS AND ACRONYMS

GLOSSARY OF TERMS

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

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

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

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

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

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

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

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

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

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

For owners, costs include mortgage payments, mortgage insurance, property taxes, property insurance, and homeowner association dues.²⁶ The difference between these housing expenses and affordable ownership costs is the housing affordability gap for owners. This calculation assumes that 35% of income is paid for housing costs.

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

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

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

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

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

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

Nexus Study: In order to adopt a residential housing impact fee or a commercial linkage fee, a nexus study is required. A nexus requires local agencies proposing a fee on a development project to identify the purpose of the fee, the use of the fee, and to determine that there is “a reasonable relationship between the fee’s use and the type of development project on which the fee is imposed.” A nexus

²⁶ Mortgage terms for first-time homebuyers typically allow down payment of five percent; these terms require private mortgage insurance.

study establishes and quantifies a causal link or “nexus” between new residential and commercial development and the need for additional housing affordable to new employees.

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

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

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

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

DEFINITION OF ACRONYMS

AMI:	Area Median Income
BMR:	Below Market Rate
CBIA:	California Building Industry Association
EDD:	State of California Employment Development Department
FAR:	Floor-area-ratio
FF&E:	Furniture, Fixtures, and Equipment
GBA:	Gross Building Area
HCD:	Department of Housing and Community Development (State of California)
NAICS:	North American Industry Classification System
NSF:	Net Square Feet
QCEW:	Quarterly Census of Employment and Wages
R&D:	Research and development
SF:	Square Feet
TDC:	Total Development Costs

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STAFF REPORT

City Council

Meeting Date:

7/19/2016

Staff Report Number:

16-125-CC

Consent Calendar:

Authorize the City Manager to enter into an agreement with IEC for the Emergency Wells 2 & 3 project

Recommendation

Staff recommends that the City Council authorize the City Manager to enter into a consultant agreement with Infrastructure Engineering Corporation (IEC) for \$1,607,450 to identify the next two emergency well locations, prepare environmental documents, design emergency wells 2 & 3, and provide construction support.

Policy Issues

According to Section 64554(a)(1), Chapter 16, Title 22, California Code of Regulations, a water system serving more than 1,000 service connections must be able to meet four hours of peak hourly demand with storage capacity, source capacity, and/or emergency connections at all times.

The project is consistent with the Menlo Park General Plan, Policy I-H-5, which states: "New wells and reservoirs may be developed by the City to supplement existing water supplies for Menlo Park during emergency and drought periods. Other sources such as interconnections and purchase agreements with water purveyors shall be explored and developed."

The project is included in the Urban Water Management Plan adopted on May 24, 2016 which describes and evaluates water supply sources and reliability over the next 20 years, and the Council's 2016 Work Plan.

Background

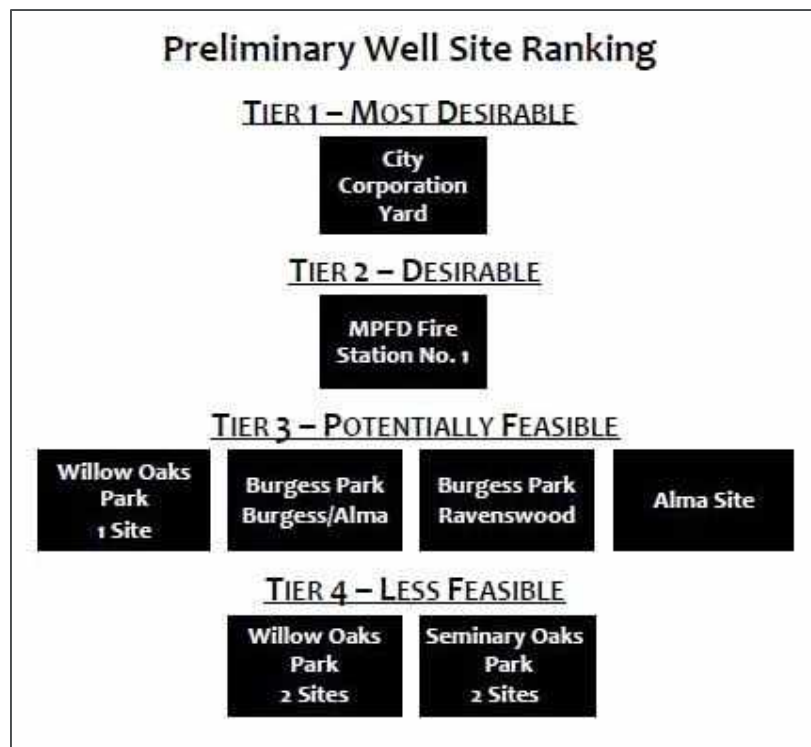
The Menlo Park Municipal Water District (MPMWD) provides water to approximately 16,000 residents through 4,300 service connections within two service areas: the upper zone (providing water to the Sharon Heights area) and the lower zone (providing water to areas east of El Camino Real). California Water Service provides water to the area between the upper and lower zones.

MPMWD purchases all of its water from the San Francisco Public Utilities Commission (SFPUC), which pipes water from the Hetch Hetchy reservoir in Yosemite National Park to Menlo Park. MPMWD has two reservoirs in the upper zone for emergency storage, but the lower zone does not have storage facilities or a dedicated secondary water supply. As a result, nearly 3,000 residences and businesses could be without water immediately for an undetermined period of time during a significant natural disaster.

In order to meet the project goal to provide a total of 3,000 gallons per minute (gpm) as an alternative supply in the lower zone, MPMWD developed a screening process (2010), gathered community input and evaluated potential well sites (2011), drilled two exploratory borings (2012), and ranked the sites

accordingly (2013) as shown in the Preliminary Well Site Ranking below.

On June 7, 2016, the City Council adopted the environmental document for the first emergency well location at the City's Corporation Yard and staff is proceeding forward with design and construction.



Analysis

Now that the first emergency well (at the Corporation Yard) is underway, staff recommends entering into an agreement with an engineering consultant to identify the next two well locations, prepare environmental documents, design the emergency wells, and provide construction support.

On March 31, 2016, staff provided a Request for Proposal (RFP) to 25 engineering consulting firms, and three consultants submitted proposals. Staff reviewed each proposal and is recommending IEC for several reasons:

- They have extensive experience with numerous well projects from design through construction for several municipal agencies and are currently the City's consultant for the Corporation Yard emergency well.
- They have excellent communication skills and are well equipped to facilitate community meetings and to present to City Council and other groups as necessary.
- They are less costly due to the fact that they are already familiar with the overall emergency well project and they fully understand the project's priorities.

Attachment A contains the project's scope of work, Attachment B contains the project budget, and Attachment C contains the tentative project schedule.

Well Identification Construction Process

Well design and construction consists of four steps. These steps are:

- Identify locations for Wells 2 & 3 and perform exploratory drilling.
- Develop and adopt the environmental document.
- Drill the wells.
- Construct the wellhead facilities (underground and above ground improvements).

Drilling the well (step 3) and construction of the wellhead facilities (step 4) involves two different types of contractors with different expertise, therefore, construction occurs as two separate steps.

Step 1 – Identify Locations for Wells 2 & 3

In order to identify the next two well sites, IEC will evaluate the tier 2 and 3 potential well sites (Fire Station No. 1, Alma site, Burgess Park, and Willow Oaks Park) as shown in the Preliminary Well Site Ranking above. Factors that will be considered are potential aquifer yield, water quality distribution, and potential for environmental impacts in addition to the engineering criteria (i.e., property ownership, operation and maintenance feasibility, construction feasibility, regulatory compliance, construction feasibility and cost) and community “livability” criteria (i.e., site access, noise disturbance, aesthetic concerns, parkland concerns, and land use consistency). Staff will hold community meetings to solicit feedback. Attachment D contains aerial photos of potential well sites with possible well locations within each site (only one well can be placed on a site).

In order to verify the availability of water and the hydraulic conductivity of the soil, IEC will drill exploratory borings at the two selected potential well locations. Prior to proceeding forward, staff anticipates returning to Council in spring 2017 to approve the two potential well sites for exploratory drilling to determine if they are viable locations for the next two emergency wells.

After exploratory drilling is completed, staff anticipates returning to the City Council in summer 2017 to present findings and approve proceeding forward with developing the environmental documents for the two wells.

Step 2 – Environmental Review

Staff anticipates that there will be two environmental documents, one for each well.

Step 3 – Well Drilling

Well drilling will consist of mobilizing equipment, drilling the well, and determining water quality and well yield. In order to drill a well, drilling must be continuous (i.e. 24 hours a day) for 7 to 14 days. Once the well is drilled, it will be temporarily capped while the wellhead facilities are being designed.

Step 4 – Wellhead Construction

Once the wells are drilled and water quality and well yield are known, IEC will finalize the design of the wellhead facilities which may include emergency generators, fences, landscaping, and structures. Once construction is completed, MPMWD will submit a Drinking Water Source Assessment to obtain the Drinking Water Permit from the State.

Impact on City Resources

The total estimated cost is \$1,607,450 which includes a 15% contingency and the optional tasks if necessary. The cost breakdown per task for the Scope of Work is shown in Attachment B.

Budget	
Scope of Work	\$1,067,451
15% Contingency	\$ 160,119
Subtotal	\$1,227,570
Optional Services, if needed	\$ 379,880
Total	\$1,607,450

There are sufficient water capital funds allocated in the Capital Improvement Program to identify the next two well locations, prepare environmental documents, design emergency wells 2 & 3, and provide construction support.

The costs above do not include costs to drill the wells or costs to construct the wellhead facilities. Once the wells are constructed, there will be ongoing operational and maintenance costs. The Water System Master Plan, to be completed and presented to the City Council in spring 2017, will evaluate staff resources including additional maintenance needs for the emergency wells.

Environmental Review

In order to meet the California Environmental Quality Act (CEQA) for wells 2 & 3, IEC will prepare an Initial Study (IS) that will analyze a number of topics, including aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public service, recreation, transportation and traffic, and utilities and service systems.

Staff will return to City Council to approve the environmental documents prior to proceeding forward with well drilling and construction of the wellhead facilities.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Scope of Work
- B. Project Budget
- C. Tentative Project Schedule
- D. Aerials of Potential Well Locations

Report prepared by:

Sally Salman, Assistant Engineer

Pam Lowe, Senior Civil Engineer

Report reviewed by:

Ruben Nino, Assistant Public Works Director

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TASK 1 – KICK-OFF AND DATA REVIEW**1.1 Kick-Off Meeting**

We will attend a kickoff meeting with key IEC team members and City staff. We will prepare (1) draft and (1) final meeting agenda, and will provide (1) draft and (1) final version of meeting minutes for City files.

1.2 Data Review

We will review the following information relative to the project.

- Potential to improve the hydrologic evaluations of the potential well sites using recent information from adjacent parts of the groundwater basin.
- Whether any of the potential sites originally eliminated on hydrogeologic grounds should be incorporated into an updated Tier 2 or 3
- Whether additional sites not previously available should now be included, potentially including new sites as well as Fire Station No. 1

Budget provides for up to (4) meetings (assumed 2 with Public Works staff and 1 each with Planning staff and Menlo Park Fire District staff). We will provide meeting notes for your files; we assume (1) draft and (1) final version of the notes for each meeting.

TASK 2 – WELL SITE RECOMMENDATION**2.1 Update Hydrogeologic Review of Tier 2 & 3 Sites**

We will review the existing hydrogeologic ranking of the preferred well sites if needed based on Task 1.2. This subtask will apply up-to-date information to the evaluation of hydrogeologic conditions at each potential site. Specifically, screening and ranking of potential well sites will consider aquifer properties, potential aquifer yield, water quality distribution, and potential for environmental impacts.

2.2 Update Engineering Ranking of Tier 2 & 3 Sites

If needed, we will review the existing engineering screening and ranking for the wellhead facilities at the potential well sites listed in the RFP based on property ownership, operation and maintenance feasibility, construction feasibility, regulatory compliance, system hydraulic considerations, construction feasibility and cost, and potential for community and environmental impacts. The ranking will be updated based on changed conditions and newly identified sites in Task 1.2.

2.3 Community Meetings

We will prepare for, attend, and facilitate (2) community meetings. Meetings will reintroduce the Emergency Water Supply Project, present the results of the updated site screening and ranking, and provide a forum to answer community questions and discuss ways to address community concerns, if any.

We will provide meeting invitation notices, a PowerPoint presentation, and up to (6) large-format display graphics mounted on foamcore or similar. We will also provide meeting signage and sign-in sheets, manage the collection of attendee contact information, and provide meeting notes for City files. For all meeting materials, our base budget assumes (1) draft and (1) final submittal. We assume the content of the two meetings will be the same, so the same materials can be used for both meetings.

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Meeting notices and signage will be bilingual in English and Spanish and we will provide Spanish/English interpreter services during the meetings if requested. Our base budget also provides for attendance at (1) 4-hour prep session with City staff, prior to the first meeting; set-up and tear-down at both meeting venues; and limited additional coordination/follow-up by phone and email. We assume that meeting venues will be arranged by City staff and that the City will reproduce and mail the meeting invitations. Additional follow-up meetings with the community can be provided on a time-and-materials cost basis under separate authorization if desired.

2.4 Recommendation of Sites for Wells 2 & 3 TM

The preferred sites for Wells 2 and 3 will be identified based on the updated site screening and ranking developed through Tasks 2.1 and 2.2. A Technical Memorandum (TM) will be prepared that documents the updated siting criteria, final site rankings, and public comments, and identifies the selected sites. A map of each well site with a preliminary/proposed exploratory boring location will be included in the TM.

2.5 Preliminary DDW Contact & Presentation

We will meet with the State Water Resources Control Board's Division of Drinking Water (DDW) following confirmation of the preferred sites for Wells 2 and 3. The meeting will be structured to bring DDW staff up to date on the project, present the updated siting process and results, and introduce the top-ranked sites, with the goal of obtaining preliminary buy-in for the preferred sites. We will develop and present a PowerPoint for the meeting—(1) draft and (1) final assumed—and will respond to DDW questions and take input for the DWSAP process. We will also provide large-format layout graphics and a Summary of Municipal Water Well Design Requirements matrix for each site; budget assumes (1) draft and (1) final submittal of each deliverable.

TASK 3 EXPLORATORY DRILLING

3.1 Site Survey

We will provide a topographic survey at a scale of 1"=20' for each well site, with a 1-foot contour interval. Survey will include location of existing trees, structures, walkways, fences, roadways, and utility information, invert elevations of storm drains and sanitary sewers; and locations of underground utilities and property lines based upon available agency records and field conditions.

3.2 Plat & Legal Descriptions (See Optional Services below)

3.3 Exploratory Drilling Layout Refinement

One of the initial tasks will be finalizing the location of the exploratory boring at the selected sites. We propose to meet with City staff at each site, and select the exploratory boring location. Consideration will be given to the location and alignment of the drill rig, mud tank systems, cuttings storage bin, and support vehicles during construction, as well as potential locations of the future production wells.

3.4 CEQA Notice of Exemption

This task provides for IEC's environmental staff to prepare and file a CEQA Notice of Exemption (NOE) for field site evaluations, consistent with Sections 15061–15062 of the state's *CEQA Guidelines*. We assume that drilling activities at both sites can be covered under the same notice and that activities will be covered under a Class 6 Categorical Exemption per *CEQA Guidelines* Section 15306.

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Per Guidelines Section 15062, the NOE is filed after approval of the covered activities. Following the Council authorization of exploratory drilling, we will provide an administrative draft NOE in PDF format, using the current standard State Clearinghouse format, for City staff review. We will revise and finalize the NOE based on (1) round of review comments, and will file it with the County Clerk on behalf of the City.

3.5 Exploratory Drilling Bid Assistance

We will prepare an exploratory drilling bid package (a single package for one boring at each of two sites) for contractor selection. Construction documents for the borings will include maps and written specifications for the drilling method, boring depth and diameter, sampling methodologies, geophysical program, and if optional monitoring wells are installed (see Task 3.4.1B, below), written specifications for well casing and screen, filter pack, and wellhead and vault completion. The bid package will also include requirements/specifications for advance notification to the public (bilingual in English and Spanish), and if needed for work hour limitations, temporary security fencing, and noise control measures.

We will assist City in construction bidding and contractor selection, including interfacing with drillers during the open bid process. We will assist the City in reviewing drilling contractor bids and advise the City in evaluating and rating drilling proposals.

3.6 Exploratory Drilling Construction Budget and Construction Support

We will provide construction support for drilling (1) deep exploratory boring (and as an option, installing a test well) at each selected site. We anticipate that the borings will be drilled to a total depth of approximately 500 or 600 feet below ground surface using the mud rotary method.

Aquifer core samples will be collected at regular intervals and lithologic logs will be prepared. The core samples will be retained for grain size analysis in order to optimize the well screen and gravel pack specifications for the full-scale wells. The borehole will be geophysically logged using downhole electrical (spontaneous potential and resistivity) methods. These methods measure the electrical characteristics of the aquifer and aquitard zones and provide very detailed hydrogeologic information regarding the presence and properties of potential deep aquifer zones along with some information on the distribution of water quality with depth.

After evaluation of the geologic and geophysical data, specifications (casing and screen depths and intervals) for Wells 2 and 3 will be developed.

3.7 Drilling Investigation Report

We will prepare an Exploratory Drilling Investigation Report. The report will document the boring installation, lithologic and geophysical logging, and the hydrogeologic conditions encountered at each site. If the City elects to install monitoring wells in the borings then pumping and water quality sampling results will also be documented and evaluated with respect to potential future well treatment requirements and operational parameters. Estimates of the potential pumping rates of a larger-diameter and production well will be provided. Recommendations will be made for next steps in constructing a full-scale production well at each site, and a preliminary design for a production well will be provided. We will deliver (1) draft and (1) final report in PDF format.

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3.8 Monitoring Wells and Testing (See Optional Services below)

3.9 Depth Discrete Flow and Water Quality Testing (See Optional Services below)

3.10 Biologist Support for Drilling Adjacent to Sensitive Habitat (See Optional Services below)

3.11 Council Presentation

We will prepare and deliver a PowerPoint presentation—(1) draft and (1) final assumed—for City Council documenting the updated site screening/ranking, discussing the exploratory drilling investigation program and results, identifying the recommended sites for Wells 2 and 3, and recommending next steps. We will attend (1) City Council meeting to make the presentation and assist City staff in responding to questions.

TASK 4 DWSAP/PERMIT

This task consists of the preparation of the Drinking Water Source Assessment (DWSAP) and related coordination with DDW for each well site. Preparing the DWSAP will include the following activities.

4.1 Preliminary DWSAP

- Data collection and review – We assume that we have already reviewed much of the relevant information, but for completeness will formally request information per DWSAP guidelines from the City and review the available reports, surveys, studies, and test results, which characterize existing conditions and the proposed facilities
- Preparation of a draft preliminary DWSAP for City review – IEC will prepare the draft report for City review. Included in this task is an inventory of potential contaminant activities using available database searches by Environmental Data Resources, Inc.
- Submittal of Preliminary DWSAP – we will revise our DWSAP approach based on City review and DDW comments on our presentation, and will submit a Preliminary DWSAP to DDW. We will also provide PDF and hardcopies of the DWSAP to the City and DDW upon request. We assume (1) Preliminary DWSAP submittal and (1) follow up submittal if more information is requested by DDW.

4.2 Final DWSAP

- Submittal of Final DWSAP – Following well construction, we will finalize the DWSAP per the as-built conditions and resubmit to DDW. We assume (1) Final DWSAP submittal and (1) follow up submittal if more information is requested by DDW.

4.3 Amend Drinking Water Permit

- Amendment to City's existing Drinking Water Permit – Following completion of the wellhead and associated facilities, we will assist the City with amendments to the existing permit to cover the addition of the new water source. This will entail completing the Permit Amendment forms, and compiling water quality test results and submitting them to DDW on the City's behalf, and coordinating the permit amendment process with the DDW. We assume (1) Drinking Water Permit submittal and (1) follow up submittal if requested by DDW.

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Deliverables:

- Draft and final DWSAP for both wells (2 iterations each)
- Amended Drinking Water Permits for both wells (2 iterations)

TASK 5 PLANNING SUBMITTAL & ENVIRONMENTAL DOCUMENTATION

5.1 Develop and Submit Planning Submittal

We will prepare and submit the documentation needed to obtain Planning approvals (assumed limited to Generator Permit and Planning Application) for Wells 2 and 3. We assume that separate submittal packages will be needed for each well, but that meetings can be combined to address both wells. Our base budget provides for the following activities and deliverables.

- Pre-submittal meeting with Planning staff
- Administrative draft Planning submittal packages for Wells 2 and 3, for review by Public Works staff
- Revisions in response to (1) round of Public Works staff comments
- Submittal-ready packages for Wells 2 and 3; in-person submittal via Planning Counter
- Up to (2) rounds of revision in response to Planning staff comments; revisions assumed to be moderate at the first iteration and minor at the second iteration
- Attendance at (1) Planning Commission hearing
- Coordination with Planning and Public Works staff throughout the process, up to the level of effort reflected in our base budget

For each well site, the planset developed for the Planning Submittal will include the following drawings:

- Title Sheet and Drawing Index
- Site Plan, showing parcel and site features and proposed improvements, existing trees and trees to be removed
- Area Plan, showing adjacent parcels and land use, zoning, and existing trees and trees to be removed
- Landscape Concept Plan, showing proposed landscape improvements with proposed facilities shown screened back
- Landscape Palette showing proposed plant palette, fencing, and other images as deemed pertinent to City Council and Planning Commission presentation
- Visual Simulations (2), showing before and after photo simulations of the well site from (2) different points of view
- Material Sheet including sample photos of proposed materials
- Emergency Generator Sheet, including catalog information and anticipated dimensions and rating of generator
- Preliminary Civil and Mechanical Sheets, showing preliminary site improvements and facilities
- Tree Disposition and Protection Plan, showing existing trees (size, species, condition, heritage status) and proposed removals and tree protection requirements
- Landscape and Irrigation Plans, showing proposed landscaping and irrigation details

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5.2 Prepare Environmental Documents

We will prepare the project CEQA document (assumed to be an IS/MND) and supporting technical reports and assist the City with circulation and the related noticing required by CEQA and the state's *CEQA Guidelines*. Our base budget assumes that Well 2 and Well 3 will be analyzed in the same CEQA document.

Our base budget provides for the following activities and deliverables.

- **CEQA Start-Up.** Conduct kick-off meeting with Public Works and Planning staff to finalize CEQA approach. *Deliverables: (1) draft and (1) final meeting agenda*

- **Administrative Draft IS and Proposed MND.** Prepare technical reports: groundwater hydrology/well operations, biological resources, cultural resources. For biological resources, technical study will include regulatory database searches and pedestrian reconnaissance survey by qualified staff; we assume that no protocol survey or jurisdictional habitat delineation will be needed. For cultural resources, our base scope provides for a records search, pedestrian survey where warranted in the judgment of qualified archaeological staff, and risk assessment. Subsurface testing is not included but can be provided under separate scope and budget authorization if warranted. For groundwater impact analysis, technical study will be developed analyze that operation of the emergency supply wells and determine the impacts with respect to groundwater basin overdraft, land subsidence, or seawater intrusion. In order to determine the impacts from short-term operations including groundwater drawdown and recovery over time, they will be estimated using a MODFLOW groundwater model. These analyses will show that the effects of short-term well operations on groundwater levels. Technical reports will be presented as appendices to the administrative draft IS and will be subject to the same revision cycle. Prepare administrative draft IS and proposed MND consistent with all requirements of CEQA, the state's *CEQA Guidelines*, and City format preferences. Administrative draft will be delivered first for Public Works review, will be revised based on (1) round of Public Works staff input, and will then be delivered for Planning review. Following each review, meet with City staff to discuss the draft, receive feedback, and identify needed revisions needed. *Deliverables: administrative Draft IS/MND, including technical report appendices (5 bound hard copies and corresponding Word files at each iteration)*

- **Screencheck and Public Review IS/MND; IS/MND circulation.** Based on (1) round of Planning review comments, revise administrative draft IS/MND and technical reports; deliver screencheck IS, allowing City reviewers to verify that all changes have been incorporated appropriately. Make final editorial changes (assumed limited to minor copyediting items) based on (1) round of City (Public Works and Planning) review. Reproduce public/agency review IS/MND for City submittal to State Clearinghouse, and provide Notice of Completion for City use. IS/MND filing and noticing assumed to be conducted by Planning. *Deliverables: screencheck public review IS/MND (PDF format), public review IS/MND (up to 25 bound hard copies and 1 CD copy); (1) draft and (1) revised Notice of Completion for submittal to State Clearinghouse*

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- **Consideration of Comments.** Following close of IS review period, attend up to (2) meetings with Public Works and Planning staff to discuss comments and develop response approaches. At City's direction, prepare concise *Comments and Responses* technical memorandum that itemizes the comments received and provides brief but thorough consideration/response for each comment. Memorandum will be delivered first for Public Works review, will be revised based on (1) round of Public Works staff input, and will then be delivered for Planning review. Revise Comments and Responses memorandum based on (1) round of Planning review comments and provide a final version for City administrative record. *Deliverables: Draft Comments and Responses memorandum (2 iterations, Word format), Final Comments and Responses memorandum (PDF format; up to 3 hard copies if requested)*

- **MMRP, Final MND, NOD, and Filing.** Deliver draft Mitigation Monitoring and Reporting Plan (MMRP) for City review. MMRP will be delivered first for Public Works review, will be revised based on (1) round of Public Works staff input, and will then be delivered for Planning review. Revise MMRP based on (1) round of Planning review comments and provide a final version for City use. Prepare draft and final MND and Notice of Determination (NOD); both forms assumed to be reviewed in parallel by Public Works and Planning, and revised in response to (1) round of City review. Assist with MND adoption; attend City Council meetings to present IS findings, discuss public/agency comments and City responses, and assist City staff in responding to questions related to project and environmental analysis CEQA compliance. NOD filing assumed to be handled by Planning staff. *Deliverables: draft MMRP (2 iterations, Word format), final MMRP (PDF format), final MND form (PDF format), draft and revised NOD (PDF format)*

TASK 6 WELL CONSTRUCTION PS&E

6.1 50% PS&E Submittal

We will provide requirements and specifications related to the production well construction methods, well materials, depth and diameter details. Well specifications will include well casing and screen diameter, depth, casing, screen, filter pack, and seal materials and depth intervals, screen slot size, filter pack and annular seal materials, silt trap, centralizers, and well tubing. Up to (6) core samples from the exploratory borings will be analyzed for grain size distributions, and used to optimize screen aperture and filter pack specifications. Depth intervals for well screen, filter pack, and seals will be carefully evaluated in order to provide a design that maximizes yield and water quality. Core samples from the exploratory borings will be analyzed for grain size distribution in order to optimize screen aperture size and filter pack gradation.

We will also prepare specifications for well pump and control systems, including pump type and model, pump control system, water level sensors (if used), downhole lift pipe, access ports, and well head completion.

Plans will include title sheet, construction site plan, construction drilling management plan with equipment and material staging and storage area(s) delineated, well development and pump-testing plan and discharge permits, water quality testing program, temporary parking areas, traffic control plan,

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erosion control plan, and if needed, a Storm Water Pollution Prevention Plan (SWPPP) and noise mitigation requirements.

6.2 90% PS&E Submittal

Based upon the approved Preliminary design, we will incorporate City comments, further develop the design documents, and submit the 90% PS&E. The plans, specifications, and cost estimate will be delivered in PDF and also hardcopies, if requested by City (up to 5 copies each).

6.3 100% PS&E Submittal

Based upon the approved 90% design, we will incorporate City comments, further develop the design documents, and submit the 100% PS&E. The plans, specifications, and cost estimate will be delivered in PDF and also hardcopies, if requested by City (up to 5 copies each).

This task also includes submittal of separate Bid Packages with final construction documents prepared for each well site. Construction documents for the wells will include engineering drawings and written specifications for the well casing and screen, filter pack, seal, tubing, access ports, gravel-fill tube, access ports, well head and vault completion. Performance specifications including well plumb and turbidity will be included in the construction specifications. Additional project requirements for work hours and schedule, sound suppression, and site management will be included in the bid package.

Deliverables:

- 50%, 90%, and 100% PS&E for both wells (separate packages for each well site)
- Summary of permits obtained for both wells

TASK 7 WELL DRILLING CONSTRUCTION PHASE SERVICES

7.1 Bid Phase Services

We will assist the City in construction bidding and contractor selection, including interfacing with water well drillers during the open bid process. We will assist the City in reviewing drilling contractor bids and well construction materials, and advise the City in evaluating and rating drilling proposals.

7.2 Construction Phase Services

A California Professional Geologist and Certified Hydrogeologist will conduct up to (6) on-site visits during construction, and review field procedures, progress, and final well completions. If requested, we can also provide prepare a scope and budget for complete construction management/supervision of the well drilling contractor and have a Professional Geologist on-site during all phases of drilling and construction. Costs for these additional oversight services are not include in our fee estimate, but can be provided for separate authorization after review of driller bids.

7.3 Post-Construction Water Quality and Well Testing and Results

We will provide construction support services to ensure that the well construction phase is completed in compliance with contract documents. We will prepare construction reports following each site visit. We will review contractor pay requests, daily work logs, requests for information from the contractor, and punch list items; assist with contract change orders; and compile final construction documents. We will

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also provide post-construction services, including as-built drawings and final recommendations for well pump specification.

After installation and performance testing of the well pump, a groundwater sample will be obtained from each new well, and submitted to an analytical laboratory. The composite sample will be analyzed for a full Title 22 water quality suite of analyses, including general physical parameters, pH, general minerals, other inorganics/metals, organic compounds including volatiles, semi-volatiles, pesticides, and dioxins, radioisotopes, and additional substances.

A (1) preliminary composite sample may also be collected from each well after well development but prior to the pumping tests, in compliance with RWQCB water discharge permit requirements.

In addition to evaluating the water quality data for overall compliance with drinking water standards and the distributions of general minerals, iron, and manganese with depth we will also apply geochemical evaluation and fingerprinting methods in order to identify different groundwater sources. These will include water source analyses, which can be used to fingerprint the groundwater sources, such as Bay water, San Francisquito Creek water, and local marine clay aquitards. We will provide as-built drawings of the well, and a TM will be prepared documenting the water quality sampling and results.

Deliverables:

- Separate bid documents for both wells
- Construction reports, contract change orders, as-built drawings, and final recommendations for well pump specification
- Hydrogeologic analysis, water well design, and construction support
- As-built drawings
- Summary of well water testing results and findings

TASK 8 WELLHEAD FACILITY PS&E

8.1 50% PS&E Submittal (Wellhead Facilities Preliminary Design Report (PDR) and 50% Plans)

We will prepare a Preliminary Design Report (PDR) that provides the basis of design for the wellhead facilities. Our base cost assumes that the design will include civil site improvements, mechanical wellhead facilities, chemical disinfection, new electrical service, connection to the existing storm drain for well discharge, connection to existing potable water facilities, a hydropneumatic tank, an emergency backup generator, instrumentation and controls, and landscaping.

The PDR will evaluate up to three (3) preliminary facility layout alternatives for each of (2) well sites, and will identify equipment size, determine regulatory requirements, and establish design criteria.

We propose to prepare the PDR as a series of technical memoranda (TMs) to be reviewed individually by the City as they are completed. We assume one draft and one final version of each TM:

- TM 1: Basis of Design/Design Criteria/Regulatory Requirements
- TM 2: Emergency Power Supply

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- TM 3: Treatment System(s)
- TM 4: Concept Facility Layouts
- TM 5: Water System Hydraulic Analysis and Operational Settings
- TM 6: Preliminary Construction Cost Estimate
- TM 7: Construction Schedule

Input from the sub-disciplines of Landscape Architecture and Electrical & Control will be integrated in to the PDR as appropriate.

Based upon the PDR, we will incorporate City comments and develop the design documents and submit the 50% Plans, Specifications, and Cost Estimate (PS&E). We will include catalog cuts for key components of the proposed materials, equipment, and products to be specified, as well as supporting engineering calculations.

8.2 90% PS&E Submittal

Based upon the PDR and 50% plans, we will incorporate City comments, further develop the design documents, and submit the 90% PS&E. We will include catalog cuts of proposed materials, equipment, and products to be specified, as well as supporting engineering calculations.

8.3 100% PS&E Submittal

We will incorporate City design review comments from the 90% submittal and advance the PS&E to the 100% complete stage. In addition to the 100% level PS&E a final design report will be submitted, containing engineering calculations, catalog cuts of specified materials, products and equipment, and other miscellaneous technical data. A Final Submittal will also be delivered under this task, incorporating final City comments. We anticipate that the Final drawing package will include the following sheet counts for each of the two well sites:

- Title and General – (3)
- Civil – (6)
- Mechanical – (4)
- Electrical – (6)
- Instrumentation – (3)
- Landscape Architecture – (5)

8.4 Electrical & Instrumentation

Design and engineering construction support services for electrical and instrumentation will be provided throughout the project by JSP Automation, who will perform these duties as a subconsultant to IEC. JSP Automation will provide professional engineering services for well pump station electrical, instrumentation and control system upgrades contained within the RFP. JSP's services will include predesign and design documents as indicated to be completed for the bid and construction of two well pumping facilities.

Pump Station Electrical and Control System Engineering:

JSP will provide Electrical, Instrumentation and Control System design services to address the electrical distribution, standby generator, motor control center and monitoring and control system requirements for the pump station electrical and control system upgrade. Services will include:

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- Single Line Diagram
- Electrical Equipment Elevation Diagrams
- Conduit Development Plans
- P&ID for Instrumentation and Control
- PLC and Control System Wiring Diagrams
- Installation Details

JSP will evaluate the existing SCADA system to establish the interface requirements for SCADA monitoring and control of the pump station utilizing the latest proven technology and City standards for PLC based SCADA monitoring and control. The control systems will include associated instrumentation to provide for full automatic control with advanced data monitoring to optimize pump station control, alarm notification and enhanced diagnostics for maintenance.

JSP will consider all types of motor control systems including Variable Frequency Drives, Reduced Voltage and Across the Line starting to provide for optimized motor control.

JSP will provide electrical engineering services for the installation of lighting, equipment power distribution and control equipment interfacing. Electrical design will include power diagrams, conduit schedules and installation details.

JSP will provide general electrical coordination with the local power utility to provide for service entrance requirements. JSP will provide load calculations, single line diagram, equipment elevations and secondary connection requirements for connection to a local utility service connection.

8.5 Landscape Architecture

Our landscape architecture subconsultant, Callander Associates will provide the following design services:

- **50% Submittal:** Develop landscape plans for each facility to a 50% level of completion. Submit one (1) hard copy and one (1) electronic copy on disk of all deliverables noted below:
 - ***Irrigation plan;*** with equipment layout, water and electrical services, notes and legend, 1"=20', 1 sheet – coordinate with your electrical engineer for provision of electrical service to controller
 - ***Planting plan;*** plants located and types identified, with planting notes, plant list and plan legend, 1"=20", 1 sheet
 - ***Detail sheets;*** planting and irrigation details as warranted to facilitate construction, various scales, total of up to 2 sheets
 - ***Technical specifications;*** technical specifications for all work shown including soil preparation, planting, irrigation and landscape maintenance; specifications to be prepared in CSI format

City of Menlo Park
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- Estimate of Probable Construction Costs formatted to match City bid form
- **90% Submittal:** Incorporate comments on the 50% submittal develop landscape plans to a 90% level of completion.
- **Final Design Submittal:** Incorporate comments on 90% submittal proceed to refine documents to a 100% level of completion. Final documents to include all items noted in 90% submittal.

8.6 Geotechnical Report

We propose the following scope of work for Geotechnical Investigation

- perform a review of any available existing geotechnical data relevant to the project
- perform one boring to a maximum depth of 30 feet or until competent material at the Well site.
- contact Underground Surface Alert at least 48 hours prior to any excavation to identify and locate utilities within the immediate area of our proposed exploration locations.
- obtain soil samples during our explorations and perform lab testing including shear strength and index testing to better characterize the subsurface soil.
- summarize our findings in a report which will discuss observed site conditions, results of our laboratory test data, foundation recommendations, and 2013 California Building Code seismic parameters.

8.7 Building Design (See Optional Services below)

TASK 9 WELLHEAD FACILITY CONSTRUCTION PHASE SERVICES

9.1 Bid Phase Services

We will provide Bid Phase Services comprising response to potential bidder questions; facilitation of a prebid meeting; and assistance with bid evaluation. We assume 4 RFI's and 5 bid package reviews for completeness. We do not include reference checks for bidders.

9.2 Construction Phase Services

Engineering Construction Support Services will include the following items of work for each Bid Package:

- Receive, log and process Requests for Information (RFIs); we assume ten (10) RFI's for the purposes of this proposal
- Receive, log and process Contractor Submittals; we assume twenty (20) Submittals (with one initial and one re-submittal each)
- Attend a Preconstruction Conference
- Provide design clarification of contract documents
- Attend Two-Day Final Site Inspection
- Provide Two-Day Start-Up and Commissioning Assistance

We have not included field observation, inspections, contract administration, or other construction management services in this proposal; these services can be provided by IEC as an extended scope of work

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9.3 Post-Construction Services

We will provide post-construction services comprising preparation of as-built drawings and final test results.

9.4 SCADA/PLC Programming (See Optional Services below)

9.5 Electrical Inspection Services/Start up and testing (See Optional Services below)

TASK 10 – PROJECT MANAGEMENT

Project management and administration activities are assumed to consist of the following: holding project progress meetings with City staff, internal team meetings, coordination with City, coordination and management of subconsultants, and administrative efforts including accounting activities and maintaining insurance requirements. The project schedule will also be periodically updated as the project progresses.

10.1 Progress Meetings

- Monthly coordination meetings with City: agenda and meeting minutes for all meetings for the duration of the project as shown in the attached Schedule
- Weekly project updates via email and/or telephone to discuss budget, schedule, and project issues.
- Monthly report summarizing progress to date, pending action items, project budget, and updated schedule.
- Conduct an effective quality assurance and quality control program.
- Presentations to City staff as indicated in each task and at the end of the preliminary design to discuss the project, construction schedule, costs, and constraints.

10.2 Project Schedule and Updates

- Provide monthly electronic project design schedule in MS Project and PDF format. Schedule shall include all submittals, meetings, and milestones, and will provide a minimum (3) week period for each City submittal review.
- Maintain and submit the project schedule monthly.

GENERAL ASSUMPTIONS

Following are our working assumptions for this project:

- We provide a topographic survey at a scale of 1"=20' for each well site. Contours will be shown at 1-foot intervals. Survey will include location of existing trees, structures, walkways, fences, roadways, and utility information. Invert elevations of storm drains and sanitary sewers will also be provided. Survey will include location of underground utilities and property lines based upon available agency records and field conditions. The format for the survey file will be AutoCAD 2016, or a compatible previous version.
- The design will incorporate civil, mechanical, plumbing, electrical/instrumentation, structural, and landscape architecture disciplines

City of Menlo Park
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- In developing our cost estimate we have assumed that the project will generally consist of two municipal well sites with concrete pad, fencing/screening, emergency generator, new electrical service, chlorine and ammonia chemical feed system, wellhead, civil site work, drainage, and landscaping.
- We do not anticipate that a building will be required for either the wellhead or treatment facility. Design services for building(s) are included as an optional item. Advanced treatment systems (for other than disinfection facilities) are not included in the proposal, but can be provided as an extended service as needed.
- Connection to the City's potable water system will be at or near to each well site, and connection to gravity pump-to-waste will be to the existing storm drain system, also assumed to be at or near each well site.
- Bid-ready construction plans will be prepared in AutoCAD format utilizing City drafting standards (if available). Designs will be supported by the necessary engineering calculations and where applicable will utilize City Standard Design Criteria as well as applicable/appropriate local, state, and federal codes, standards, and guidelines. Plans will be prepared on 24x36-inch 4-mil mylar or equivalent and will become property of the City. Final electronic files of the plans will also be provided to the City in AutoCAD format.
- Contract specifications will include the City's standard boilerplate contract and bid forms, along with general and special provisions. We will prepare the necessary project-specific technical specifications.
- Construction estimates will be provided at each design submittal, and will include the Engineer's Opinion of Probable Construction Cost based on quantity take-offs, unit costs from past construction projects, manufacturer cost data, local material supplier costs, and estimates provided by construction contractors.

OPTIONAL SERVICES/ESTIMATED BUDGETED TASKS

3.2 Plat & Legal Descriptions

If needed this optional service is for the preparation of plat and legal descriptions for easement modifications. If this optional task is authorized by the City, the plat and legal descriptions will be prepared based on recorded parcel data. Our fee summary assumes (2) well sites.

3.8 Monitoring Wells and Testing

This optional task would provide for converting the (2) test borings into 4-inch diameter monitoring wells, to allow preliminary flow testing and collection of groundwater quality samples. Pumping tests and water quality sampling can provide useful information on yield of the full-scale wells and produced water quality. Groundwater samples can be analyzed to assess drinking water suitability, and potential future well treatment requirements.

We have included in our fee summary estimates for constructing the monitoring wells, permitting, 4-hour pumping tests, and collection and analysis of groundwater samples for basic inorganic chemistry (major anions and cations, total dissolved solids, iron and manganese, and saline water indicators boron bromide and iodide).

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3.9 Depth Discrete Flow and Water Quality Testing

Depth-discrete flow and water quality testing can also be performed using inflatable packers, yielding measurements of flow and water quality variations with depth, and allowing optimal design and construction of the full-scale wells. If the water quality is deemed suitable from optional task 3.4.2 then this task is unnecessary. However, if water quality is a potential concern then depth-specific flow testing using an inflatable packer system is proposed to assess the relative inflow contributions of different depth zones. Flow characteristics and groundwater quality will be measured for the four largest sand intervals logged between 200 and 600 ft bgs, and checked against composite flow and water quality. The flow measurements will be made at specific depths identified after logging and installation of the monitoring well. Flow rates and pressure responses in the test interval will be logged, allowing specific evaluation of aquifer hydraulic properties (including transmissivity and hydraulic conductivity) at individual depth zones. This information will be used to identify production potentials of the different hydrostratigraphic zones and to determine where high and low production zones, and chemical shifts, are located along the well screen.

Four depth-discrete water quality samples (from different portions of the screened interval(s) of the monitoring well) will be obtained using inflatable packers. Discrete samples from different depth intervals will allow determination of water quality variations along the well profile. This information, combined with the depth-discrete flow testing, will allow optimal design of a full-scale well with respect to water quality.

We will analyze the depth-discrete samples to assess drinking water suitability (in terms of general inorganic constituents), to understand water quality variations with depth, sources of shallow and deep groundwater, and to support design and optimization of a full-scale well. The analyses address general inorganics including major anions and cations, iron and manganese, and bromide and iodide (indicators of saline water intrusion).

Our fee summary assumes (2) well sites.

3.10 Biologist Support for Drilling Adjacent Sensitive Habitat

If needed, this task would provide for qualified biologist assistance for driller mobilization, to: (1) assist in siting the boring outside jurisdictional limits; (2) define the limits of work to avoid accidental incursions into sensitive habitat and oversee the placement of exclusion fencing to protect the riparian zone; and (3) if needed, conduct clearance surveys for nesting birds. If warranted in his/her professional judgment, the biologist will also oversee removal of exclusion measures.

8.7 Building Design

This task is all inclusive for building design including preparation of design renderings, community design review meetings, architectural and structural design, cost estimating, and construction support services. Specific work tasks include:

- Project Management: Prepare invoices and progress statements each month. Estimate 12 months of Design services and 6 months of Design Services during Construction. Attend one (1) project/team meeting in Menlo Park.

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- Preliminary Design: Prepare Preliminary Design alternatives for the Architectural design of the Well Building. The design will address the functional requirements of the structures and site as well as any visual impact to the surrounding uses. IEC will provide BTA with the basic building configuration and relevant design criteria, including any City design Standards. Two alternatives will be developed based on the design criteria. The design variables include; the roof form, the finish wall material and detailing, the detailing of openings, the design of exterior elements for mitigation of visual impact, as well as coordination with site work, fencing and landscaping. Deliverables include: Preliminary design narrative, schematic plans and elevations and up to two (2) photo-composite perspective renderings of the alternatives.

This Task includes the following subtasks:

- review site, mechanical, electrical & structural issues and develop design concepts
 - generate schematic plans and exterior elevations
 - Perspective rendering(s), colored presentation plans and elevation, assume two (2) max.
 - Attend Community Design Meeting 1 to review alternatives and receive comments
 - Refine preferred alternative
 - Attend Community Design Meeting 2 to review preferred alternative and receive comments
 - Attend Preliminary Design coordination meeting (1)
- Initial Design (50% Submittal): Prepare fifty (50%) drawings and list of specifications for the approved preliminary design for the Well Building. Drawings will include plans, exterior elevations, sections, schedules, and selected details.
 - Final Design (90 and 100% Submittals): Incorporate 50% review comments. Prepare 90% Design drawings and specifications. Drawings will include plans, exterior elevations, sections, schedules, and details.
 - Prepare final exterior elevations, sections, and architectural details.
 - Coordinate architectural drawings with structural, mechanical and electrical drawings.
 - Prepare architectural specification sections
 - Prepare 100% Draft submittal for QA/QC and review by City
 - Revise and resubmit drawings & specifications for 100% Final Bid Ready Package

Preliminary list of drawings:

A1	Details
A2	Details
A3	Details & Door & Finish Schedules
A4	Sections
A5	Floor Plan & Roof Plan
A6	Exterior Elevations

Drawings will be 22" x 34" format, conformed to IEC or City standards. We will provide PDF files of the architectural drawings and MSWord files of specifications for all submittals. One full-size set of Final

City of Menlo Park
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documents, stamped and signed will be provided if required. PDF electronic drawing files, specifications in Word and pdfs will be provided. AutoCAD files may be provided upon request.

Assist IEC in the preparation of Cost Opinions at Preliminary, 50%, 90 and 100% submittals by providing input on architectural elements.

- Bid Assistance and Construction Services:
 - Respond to bidder's questions
 - Prepare addenda items
 - Submittal Review (20 Submittal/Resubmittals, est)
 - Exterior color board – samples of each selected color
 - RFI's (5 est.)
 - Change Order review, Design Clarifications (1 each, est.)
 - Site Visits (2)
 - Prepare record drawings based on as-built information provided contractor. Printing of as-built drawings, if required, by IEC.

9.4 SCADA/PLC Programming

Our subconsultant JSP Automation has complete in-house Supervisory Control and Data Acquisition (SCADA) and Programmable Logic Controller (PLC) programming and development capabilities. In lieu of having the contractor responsible for programming which can result in inconsistencies with City SCADA standards, JSP can provide complete programming of well site PLC and modifications to existing SCADA system. Services would include:

- SCADA Graphics Development for Two wells
- Modification of existing communications infrastructure to include two additional well sites.
- PLC and Local Operator Interface Programming for two well sites.

9.5 Electrical Inspection Services/Start up and testing

In our experience the electrical and control systems often require additional specialized inspection services to provide for quality control of the electrical, instrumentation and control systems. This task includes the following:

- Witnessed Factory Testing One Day
- Attend Start-Up Meeting
- Three Site Installation Inspections
- Two Days Witnessed Instrumentation Loop and Device Point Testing
- Two Days Witnessed Station Control System Commissioning Services
- Two Days Final Acceptance Testing

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Project Budget

ATTACHMENT B

TASKS	COSTS
Task 1 - Kick Off and Data Review	\$16,373
Task 2 - Well Site Recommendation	\$57,818
Task 3 - Exploratory Drilling	\$391,531
Task 4 - Drinking Water Source Assessment & Protection (DWSAP)/Drinking Water Permit	\$26,090
Task 5 - Planning Submittal & Environmental Documentation	\$136,603
Task 6 - Well Drilling PS&E	\$28,734
Task 7 - Well Drilling Construction Phase Services	\$54,696
Task 8 - Wellhead Facility PS&E	\$206,011
Task 9 - Wellhead Facility Construction Phase Services	\$87,875
Task 10 - Project Management	\$61,720
TOTAL	\$1,067,451
Optional Services	
Prepare Plat & Legal (2) sites	\$3,960
Monitoring Wells & Testing (2) sites	\$50,408
Depth Discrete Flow and Water Quality (2) sites	\$48,852
Biologist Support for Drilling Adjacent to Sensitive Habitat (2) sites	\$2,135
Building Community Workshop/Design/Construction Phase (2) sites	\$232,840
Supervisory Control and Data Acquisition (SCADA) and Programmable Logic Controller (PLC) programming	\$27,510
Electrical Inspection/Start-up & Testing	\$14,175
Optional Services, Total	\$379,880

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Tentative Project Schedule

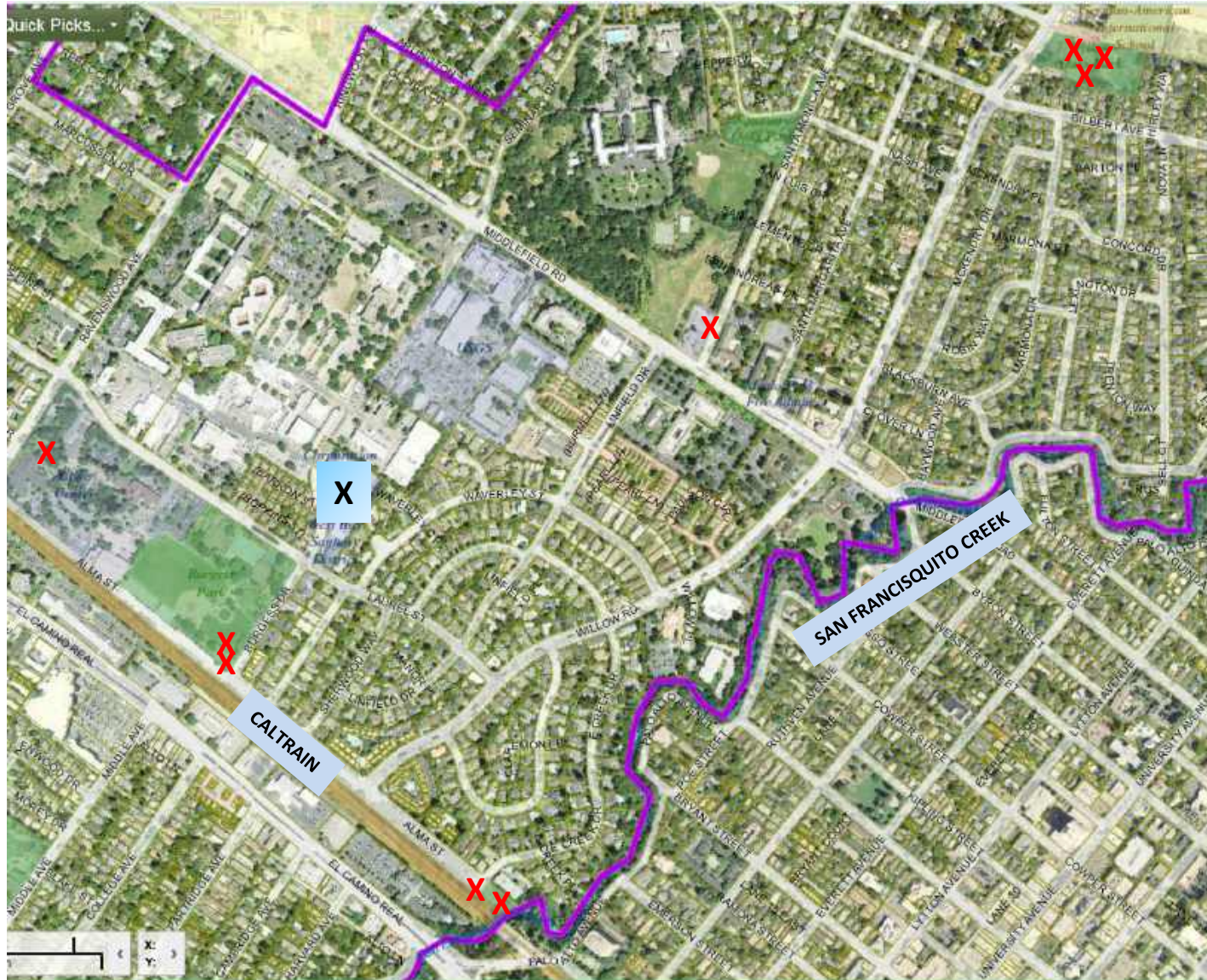
ATTACHMENT C

Menlo Park Municipal Water District
 Emergency Water Supply Project
 Emergency Wells 2 and 3

Task Description	2016					2017												2018												
	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
1 Kick-off Meeting	█																													
1 Data Review	█	█	█																											
2 Update Hydrogeologic/Eng Review		█	█	█	█																									
2 Recommend Well Sites					█																									
2 Community Meetings					█																									
2 DDW Presentation					█																									
3 Site Survey						█	█																							
3 Exploratory Drilling Layout								█	█																					
3 CEQA NOE						█																								
3 Exploratory Drilling and Report										█	█	█	█																	
3 Council Presentation														█																
4 DWSAP														█	█	█	█													
5 Planning Submittal															█	█	█	█												
5 IS/MND															█	█	█	█	█											
6 Well Drilling PS&E															█	█	█													
7 Well Construction																						█	█	█	█	█				
8 Wellhead Facility PS&E																█	█	█	█											
9 Wellhead Construction																											█	█	█	█
9 Project Acceptance & Closeout																													█	

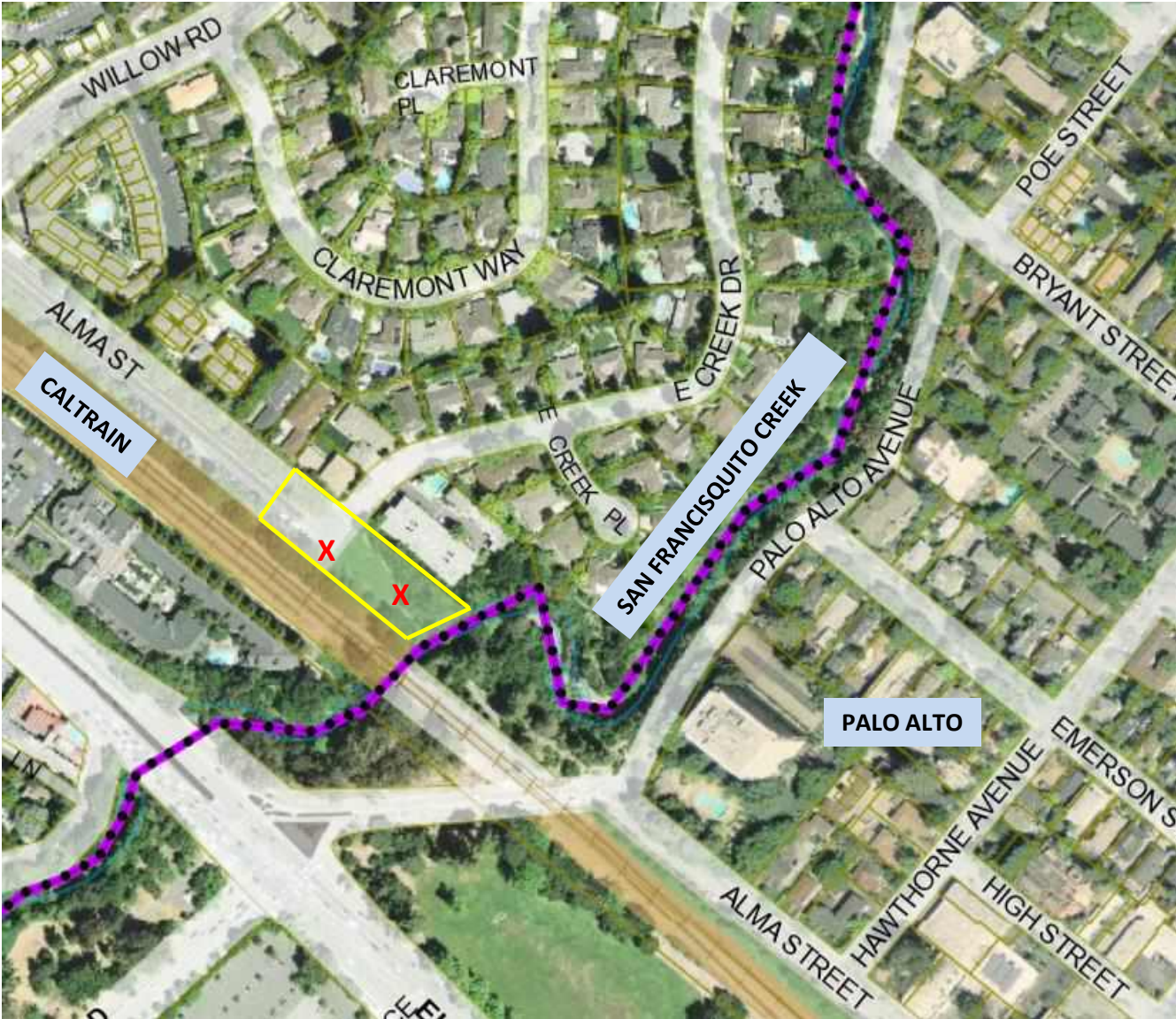
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AERIAL OF POTENTIAL WELL SITES



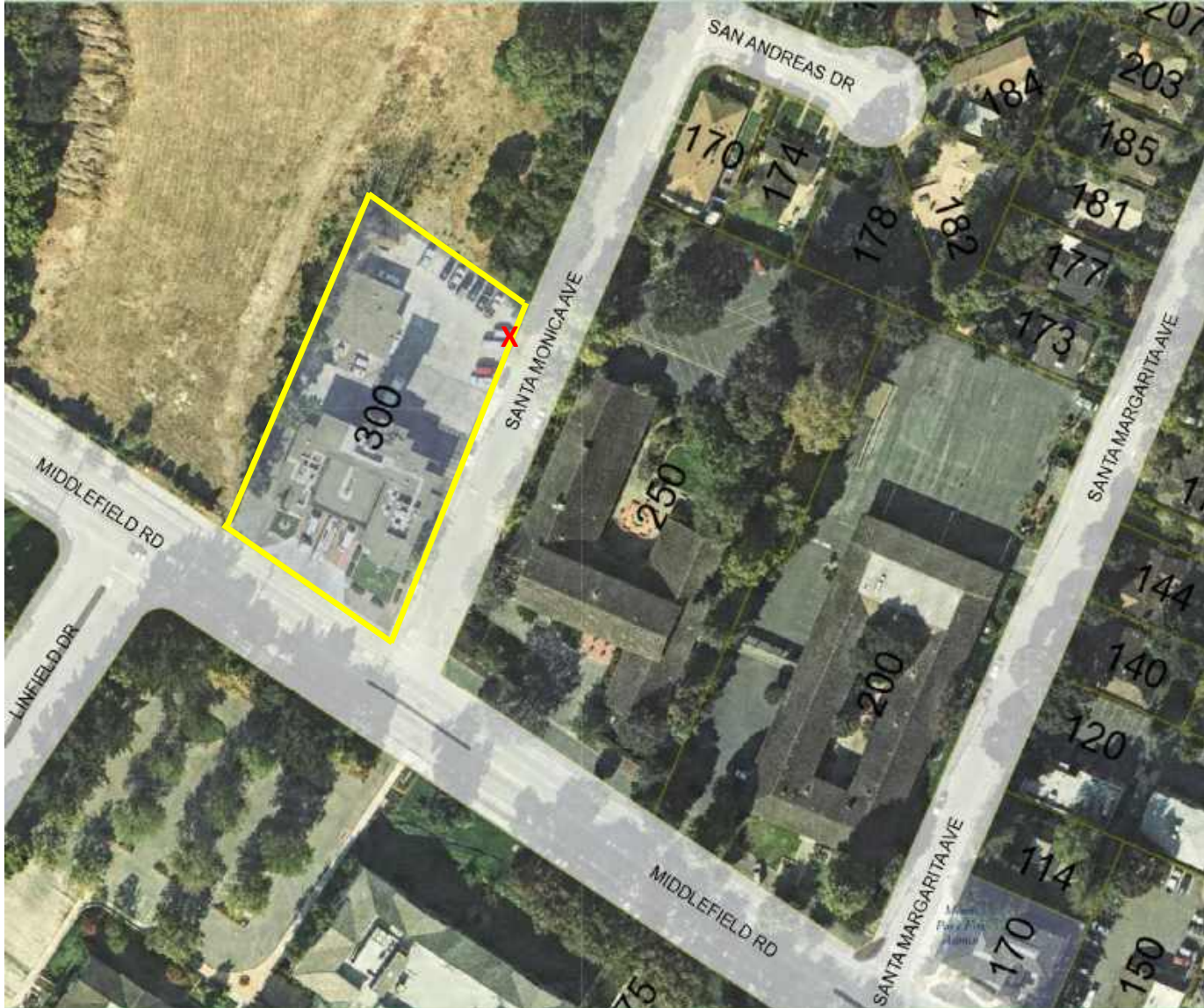
X = Potential Well Locations
X = Corp Yard Well (well #1)

ALMA SITE



X=Potential Well Location

MENLO PARK FIRE DISTRICT STATION #1



X=Potential Well Location

WILLOW OAKS PARK



X=Potential Well Location

BURGESS PARK



X=Potential Well Location

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STAFF REPORT

City Council Meeting Date: 7/19/2016
Staff Report Number: 16-124-CC

Consent Calendar: **Adopt a resolution authorizing the City Manager to execute a contract with the State of California Department of Education to reimburse the City up to \$796,890 for child care services at the Belle Haven Child Development Center for fiscal year 2016-17**

Recommendation

Staff recommends that the City Council adopt a Resolution executing a contract with the State of California Department of Education for reimbursement to the City up to \$796,890 for the delivery of child care services at the Belle Haven Child Development Center for Fiscal Year 2016-17. The Resolution is included as Attachment A.

Policy Issues

The recommendation does not represent any change to existing City policy. If the State makes any amendment to the current agreement to release additional funds for the program, it will require further action by the City Council. Staff will bring back this item to present additional information and for consideration by the City Council if it becomes necessary.

Background

The City of Menlo Park has operated the Belle Haven Child Development Center (BHCCDC) for over 30 years. The Belle Haven Child Development Center is licensed by the State Department of Social Services to provide quality child development services to families in Menlo Park and surrounding cities. The program receives funding from the State Department of Education, USDA Child and Adult Care Food Program, user fees, and contribution by the City of Menlo Park. The program seeks to build children's self-esteem by offering developmentally appropriate materials and activities supporting social, emotional, physical, and cognitive abilities. Children are provided breakfast, lunch, and snacks daily. The teacher to child ratio is 1:8.

Until 2010-11, a highly trained and committed staff taught approximately 96 children, 3-5 years of age. Cuts in state funding for 2011-12 required a decrease in program participation and in 2012-13 just 72 children were enrolled. However, in 2013-14, with the increase in State funding, the program increased enrollment to 84 children. The additional 12 children were enrolled in a new part day program that was offered. In 2014-15, with an additional increase in State funding, the program is enrolled to capacity with 96 children in both full day and part day programming. Finally, in 2015-16, the program again was enrolled to capacity with 96 children in both full day and part day programming.

Currently, the ninety-six (96) program enrollees are subsidized under the California Department of Education Child Development Division (CDD) State Preschool Program. State funding restrictions require all parents of children enrolled in the CDC's subsidized slots to be working, in school, in training, seeking

permanent housing, actively seeking employment, or incapacitated. All families of children enrolled in the CDC must meet strict income eligibility requirements. The State contract also provides funding for additional resource materials, such as classroom supplies and small equipment to support these families. Over 60 families still remain on the program’s waiting list.

A resolution must be adopted annually in order to certify the approval of the funding by the Governing Board of the jurisdiction receiving the reimbursement and to authorize designated personnel to enter into the contract with the California Department of Education. The City Manager has been identified as the Executive Director or the Authorizing Agent for the City of Menlo Park for the purpose of signing the contract. The contract is included as Attachment B.

Analysis

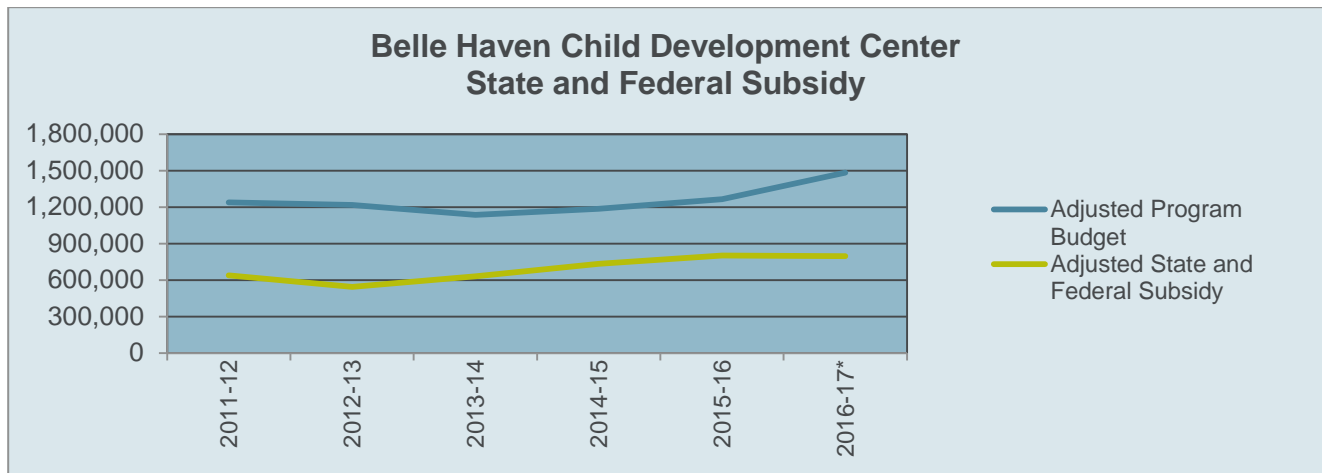
Under the terms of the contract, the City agrees to expend contract funds on reimbursable costs necessary to provide child care services for eligible children. The City is also required to meet all reporting requirements and other standard contract provisions. The contract specifies a Minimum Days of Operation (MDO) requirement of 246 days during the fiscal year and 19,156 Minimum Child Days of Enrollment (CDE). The reimbursement rate is \$41.60 per child per day, up to a maximum of \$796,890 based on the minimum service requirements.

Table 1						
Fiscal Year	Adopted Program Budget	Adjusted Program Budget	Adopted State and Federal Subsidy	Adjusted State and Federal Subsidy	Percent of State Decrease or Increase	Number Subsidized Slots
11-12	\$1,278,872	\$1,237,872	\$732,435	\$638,621	-12.8%	78
12-13	\$1,278,913	\$1,217,385	\$577,412	\$545,412	- 5.5%	72
13-14	\$1,087,187	\$1,136,416	\$577,412	\$630,501	+ 9.1%	84
14-15	\$1,167,599	\$1,186,895	\$630,501	\$732,964	+ 16.2%	96
15-16	\$1,264,337	\$1,265,051	\$746,685	\$803,364	+ 7.5%	96
16-17*	\$1,484,874	n/a	\$796,890	\$796,890*	0%	96

*Proposed budget

** Approved State Contract Estimate for FY 16-17





*Adopted budget

Impact on City Resources

The City will receive up to \$796,890 to support the BHCDC through the State contract proposed for authorization. The City anticipates receiving additional revenues from parent fees, small grants, food reimbursements and other small revenue sources. The City’s budgeted direct cost to operate the BHCDC is \$1,484,874 for the 2016-17 fiscal year. The budgeted net cost to the City for the BHCDC program for the coming fiscal year is \$687,984.

Announcement of the City’s receipt of a grant of up to \$270,000 in Big Lift funding from the Silicon Valley Community Foundation for the coming fiscal year was received too late to be included in these final budget calculations, but should produce some savings to the General Fund. Staff will report on the impact of the grant funds to the General Fund budget during the mid-year budget review.

Environmental Review

Approval of the contract is not deemed a project under the California Environmental Quality Act.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Resolution Authorizing the City Manager to Execute a Contract
- B. Belle Haven CDC California Department of Education funding contract for FY 2016-17

Report prepared by:
Natalie Bonham, Recreation Supervisor

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RESOLUTION NO.

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
MENLO PARK AUTHORIZING AN AGREEMENT WITH
THE CALIFORNIA DEPARTMENT OF EDUCATION TO
RECEIVE THE SUBSIDY FOR CHILD CARE AND
DEVELOPMENT SERVICES FOR FISCAL YEAR 2016-17**

The City of Menlo Park, acting through its City Council, having considered and been fully advised in the matter and good cause appearing therefore.

BE IT AND IT IS HEREBY RESOLVED that the City Council of the City of Menlo Park authorizes entering into local agreement number CSPP-6497 reimbursing the City up to \$796,890 for child care services at the Belle Haven Child Development Center for fiscal year 2016-17, and that the person who is listed below is authorized to sign the transaction for the City Council.

Alex McIntyre
Name

City Manager
Title

I, Pam Aguilar, City Clerk of the City of Menlo Park of San Mateo County, California, do hereby certify that the above and foregoing Resolution was duly and regularly passed and adopted by the City Council of the City of Menlo Park at a meeting thereof held at a regular public place of meeting on nineteenth day of July, 2016, by the following votes:

AYES:

NOES:

ABSENT:

ABSTAIN:

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City on this nineteenth day of July, 2016.

Pam Aguilar
City Clerk

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CALIFORNIA DEPARTMENT OF EDUCATION

1430 N Street

Sacramento, CA 95814-5901

F.Y. 16 - 17

DATE: July 01, 2016

CONTRACT NUMBER: CSP-6497

PROGRAM TYPE: CALIFORNIA STATE PRESCHOOL PROGRAM

PROJECT NUMBER: 41-2184-00-6

LOCAL AGREEMENT FOR CHILD DEVELOPMENT SERVICES

CONTRACTOR'S NAME: CITY OF MENLO PARK

This Agreement is entered into between the State Agency and the Contractor named above. The Contractor agrees to comply with the terms and conditions of the CURRENT APPLICATION; the GENERAL TERMS AND CONDITIONS (GTC-610)*; the STATE PRESCHOOL PROGRAM REQUIREMENTS*; the FUNDING TERMS AND CONDITIONS (FT&C)* and any subsequent changes to the FT&C*, which are by this reference made a part of this Agreement. Where the GTC-610 conflicts with either the Program Requirements or the FT&C, the Program Requirements or the FT&C will prevail.

Funding of this Agreement is contingent upon appropriation and availability of sufficient funds. This Agreement may be terminated immediately by the State if funds are not appropriated or available in amounts sufficient to fund the State's obligations under this Agreement.

The period of performance for this Agreement is July 01, 2016 through June 30, 2017. For satisfactory performance of the required services, the Contractor shall be reimbursed in accordance with the Determination of Reimbursable Amount Section of the FT&C, at a rate not to exceed \$41.60 per child per day of full-time enrollment and a Maximum Reimbursable Amount (MRA) of \$796,890.00.

SERVICE REQUIREMENTS

Minimum Child Days of Enrollment (CDE) Requirement	19,156.0
Minimum Days of Operation (MDO) Requirement	246

Any provision of this Agreement found to be in violation of Federal and State statute or regulation shall be invalid, but such a finding shall not affect the remaining provisions of this Agreement.

Items shown with an Asterisk (*), are hereby incorporated by this reference and made part of this Agreement as if attached hereto. These documents can be viewed at <http://www.cde.ca.gov/fg/aa/cd/ftc2016.asp>.

STATE OF CALIFORNIA		CONTRACTOR				
BY (AUTHORIZED SIGNATURE)		BY (AUTHORIZED SIGNATURE)				
PRINTED NAME OF PERSON SIGNING Sueshil Chandra, Manager		PRINTED NAME AND TITLE OF PERSON SIGNING <i>Alex McIntyre, City Manager</i>				
TITLE Contracts, Purchasing and Conference Services		ADDRESS <i>701 Laurel Street, Menlo Park, CA 94025</i>				
AMOUNT ENCUMBERED BY THIS DOCUMENT \$ 796,890	PROGRAM/CATEGORY (CODE AND TITLE) Child Development Programs	FUND TITLE		Department of General Services use only		
PRIOR AMOUNT ENCUMBERED FOR THIS CONTRACT \$ 0	(OPTIONAL USE) See Attached					
TOTAL AMOUNT ENCUMBERED TO DATE \$ 796,890	ITEM See Attached	CHAPTER	STATUTE			FISCAL YEAR
	OBJECT OF EXPENDITURE (CODE AND TITLE) 702					
I hereby certify upon my own personal knowledge that budgeted funds are available for the period and purpose of the expenditure stated above.		T.B.A. NO.	B.R. NO.			
SIGNATURE OF ACCOUNTING OFFICER See Attached		DATE				

CONTRACTOR'S NAME: CITY OF MENLO PARK

CONTRACT NUMBER: CSPP-6497

AMOUNT ENCUMBERED BY THIS DOCUMENT \$ 125,966	PROGRAM/CATEGORY (CODE AND TITLE) Child Development Programs	FUND TITLE Federal		
PRIOR AMOUNT ENCUMBERED \$ 0	(OPTIONAL USE)0656 13609-2184	FC# 93.596	PC# 000321	
TOTAL AMOUNT ENCUMBERED TO DATE \$ 125,966	ITEM 30.10.020.001 6100-194-0890	CHAPTER B/A	STATUTE 2016	FISCAL YEAR 2016-2017
	OBJECT OF EXPENDITURE (CODE AND TITLE) 702 SACS: Res-5025 Rev-8290			

AMOUNT ENCUMBERED BY THIS DOCUMENT \$ 57,860	PROGRAM/CATEGORY (CODE AND TITLE) Child Development Programs	FUND TITLE Federal		
PRIOR AMOUNT ENCUMBERED \$ 0	(OPTIONAL USE)0656 15136-2184	FC# 93.575	PC# 000324	
TOTAL AMOUNT ENCUMBERED TO DATE \$ 57,860	ITEM 30.10.020.001 6100-194-0890	CHAPTER B/A	STATUTE 2016	FISCAL YEAR 2016-2017
	OBJECT OF EXPENDITURE (CODE AND TITLE) 702 SACS: Res-5025 Rev-8290			

AMOUNT ENCUMBERED BY THIS DOCUMENT \$ 375,476	PROGRAM/CATEGORY (CODE AND TITLE) Child Development Programs	FUND TITLE General		
PRIOR AMOUNT ENCUMBERED \$ 0	(OPTIONAL USE)0656 23038-2184			
TOTAL AMOUNT ENCUMBERED TO DATE \$ 375,476	ITEM 30.10.010. 6100-196-0001	CHAPTER B/A	STATUTE 2016	FISCAL YEAR 2016-2017
	OBJECT OF EXPENDITURE (CODE AND TITLE) 702 SACS: Res-6105 Rev-8590			

AMOUNT ENCUMBERED BY THIS DOCUMENT \$ 237,588	PROGRAM/CATEGORY (CODE AND TITLE) Child Development Programs	FUND TITLE General		
PRIOR AMOUNT ENCUMBERED \$ 0	(OPTIONAL USE)0656 23254-2184			
TOTAL AMOUNT ENCUMBERED TO DATE \$ 237,588	ITEM 30.10.020.001 6100-194-0001	CHAPTER B/A	STATUTE 2016	FISCAL YEAR 2016-2017
	OBJECT OF EXPENDITURE (CODE AND TITLE) 702 SACS: Res-6105 Rev-8590			

I hereby certify upon my own personal knowledge that budgeted funds are available for the period and purpose of the expenditure stated above SIGNATURE OF ACCOUNTING OFFICER	T.B.A. NO.	B.R. NO.
	DATE	

CCC-307

CERTIFICATION

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that I am duly authorized to legally bind the prospective Contractor to the clause(s) listed below. This certification is made under the laws of the State of California.

<i>Contractor/Bidder Firm Name (Printed)</i> City of Menlo Park		<i>Federal ID Number</i>
<i>By (Authorized Signature)</i>		
<i>Printed Name and Title of Person Signing</i> Alex McIntyre, City Manager		
<i>Date Executed</i>	<i>Executed in the County of</i> San Mateo	

CONTRACTOR CERTIFICATION CLAUSES

1. STATEMENT OF COMPLIANCE: Contractor has, unless exempted, complied with the nondiscrimination program requirements. (Gov. Code §12990 (a-f) and CCR, Title 2, Section 8103) (Not applicable to public entities.)

2. DRUG-FREE WORKPLACE REQUIREMENTS: Contractor will comply with the requirements of the Drug-Free Workplace Act of 1990 and will provide a drug-free workplace by taking the following actions:

- a. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
- b. Establish a Drug-Free Awareness Program to inform employees about:
 - 1) the dangers of drug abuse in the workplace;
 - 2) the person's or organization's policy of maintaining a drug-free workplace;
 - 3) any available counseling, rehabilitation and employee assistance programs; and,
 - 4) penalties that may be imposed upon employees for drug abuse violations.
- c. Every employee who works on the proposed Agreement will:
 - 1) receive a copy of the company's drug-free workplace policy statement; and,
 - 2) agree to abide by the terms of the company's statement as a condition of employment on the Agreement.

Failure to comply with these requirements may result in suspension of payments

under the Agreement or termination of the Agreement or both and Contractor may be ineligible for award of any future State agreements if the department determines that any of the following has occurred: the Contractor has made false certification, or violated the certification by failing to carry out the requirements as noted above. (Gov. Code §8350 et seq.)

3. NATIONAL LABOR RELATIONS BOARD CERTIFICATION: Contractor certifies that no more than one (1) final unappealable finding of contempt of court by a Federal court has been issued against Contractor within the immediately preceding two-year period because of Contractor's failure to comply with an order of a Federal court, which orders Contractor to comply with an order of the National Labor Relations Board. (Pub. Contract Code §10296) (Not applicable to public entities.)

4. CONTRACTS FOR LEGAL SERVICES \$50,000 OR MORE- PRO BONO REQUIREMENT: Contractor hereby certifies that contractor will comply with the requirements of Section 6072 of the Business and Professions Code, effective January 1, 2003.

Contractor agrees to make a good faith effort to provide a minimum number of hours of pro bono legal services during each year of the contract equal to the lessor of 30 multiplied by the number of full time attorneys in the firm's offices in the State, with the number of hours prorated on an actual day basis for any contract period of less than a full year or 10% of its contract with the State.

Failure to make a good faith effort may be cause for non-renewal of a state contract for legal services, and may be taken into account when determining the award of future contracts with the State for legal services.

5. EXPATRIATE CORPORATIONS: Contractor hereby declares that it is not an expatriate corporation or subsidiary of an expatriate corporation within the meaning of Public Contract Code Section 10286 and 10286.1, and is eligible to contract with the State of California.

6. SWEATFREE CODE OF CONDUCT:

a. All Contractors contracting for the procurement or laundering of apparel, garments or corresponding accessories, or the procurement of equipment, materials, or supplies, other than procurement related to a public works contract, declare under penalty of perjury that no apparel, garments or corresponding accessories, equipment, materials, or supplies furnished to the state pursuant to the contract have been laundered or produced in whole or in part by sweatshop labor, forced labor, convict labor, indentured labor under penal sanction, abusive forms of child labor or exploitation of children in sweatshop labor, or with the benefit of sweatshop labor, forced labor, convict labor, indentured labor under penal sanction, abusive forms of child labor or exploitation of children in sweatshop labor. The contractor further declares under penalty of perjury that they adhere to the Sweatfree Code of Conduct as set forth on the California Department of Industrial Relations website located at www.dir.ca.gov,

and Public Contract Code Section 6108.

b. The contractor agrees to cooperate fully in providing reasonable access to the contractor's records, documents, agents or employees, or premises if reasonably required by authorized officials of the contracting agency, the Department of Industrial Relations, or the Department of Justice to determine the contractor's compliance with the requirements under paragraph (a).

7. DOMESTIC PARTNERS: For contracts over \$100,000 executed or amended after January 1, 2007, the contractor certifies that contractor is in compliance with Public Contract Code section 10295.3.

DOING BUSINESS WITH THE STATE OF CALIFORNIA

The following laws apply to persons or entities doing business with the State of California.

1. CONFLICT OF INTEREST: Contractor needs to be aware of the following provisions regarding current or former state employees. If Contractor has any questions on the status of any person rendering services or involved with the Agreement, the awarding agency must be contacted immediately for clarification.

Current State Employees (Pub. Contract Code §10410):

1). No officer or employee shall engage in any employment, activity or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any state agency, unless the employment, activity or enterprise is required as a condition of regular state employment.

2). No officer or employee shall contract on his or her own behalf as an independent contractor with any state agency to provide goods or services.

Former State Employees (Pub. Contract Code §10411):

1). For the two-year period from the date he or she left state employment, no former state officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any state agency.

2). For the twelve-month period from the date he or she left state employment, no former state officer or employee may enter into a contract with any state agency if he or she was employed by that state agency in a policy-making position in the same general subject area as the proposed contract within the 12-month period prior to his or her leaving state service.

If Contractor violates any provisions of above paragraphs, such action by Contractor shall render this Agreement void. (Pub. Contract Code §10420)

Members of boards and commissions are exempt from this section if they do not receive payment other than payment of each meeting of the board or commission, payment for

preparatory time and payment for per diem. (Pub. Contract Code §10430 (e))

2. LABOR CODE/WORKERS' COMPENSATION: Contractor needs to be aware of the provisions which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions, and Contractor affirms to comply with such provisions before commencing the performance of the work of this Agreement. (Labor Code Section 3700)

3. AMERICANS WITH DISABILITIES ACT: Contractor assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.)

4. CONTRACTOR NAME CHANGE: An amendment is required to change the Contractor's name as listed on this Agreement. Upon receipt of legal documentation of the name change the State will process the amendment. Payment of invoices presented with a new name cannot be paid prior to approval of said amendment.

5. CORPORATE QUALIFICATIONS TO DO BUSINESS IN CALIFORNIA:

a. When agreements are to be performed in the state by corporations, the contracting agencies will be verifying that the contractor is currently qualified to do business in California in order to ensure that all obligations due to the state are fulfilled.

b. "Doing business" is defined in R&TC Section 23101 as actively engaging in any transaction for the purpose of financial or pecuniary gain or profit. Although there are some statutory exceptions to taxation, rarely will a corporate contractor performing within the state not be subject to the franchise tax.

c. Both domestic and foreign corporations (those incorporated outside of California) must be in good standing in order to be qualified to do business in California. Agencies will determine whether a corporation is in good standing by calling the Office of the Secretary of State.

6. RESOLUTION: A county, city, district, or other local public body must provide the State with a copy of a resolution, order, motion, or ordinance of the local governing body which by law has authority to enter into an agreement, authorizing execution of the agreement.

7. AIR OR WATER POLLUTION VIOLATION: Under the State laws, the Contractor shall not be: (1) in violation of any order or resolution not subject to review promulgated by the State Air Resources Board or an air pollution control district; (2) subject to cease and desist order not subject to review issued pursuant to Section 13301 of the Water Code for violation of waste discharge requirements or discharge prohibitions; or (3) finally determined to be in violation of provisions of federal law relating to air or water pollution.

8. PAYEE DATA RECORD FORM STD. 204: This form must be completed by all contractors that are not another state agency or other governmental entity.

CO.8 (REV. 5/07)

FEDERAL CERTIFICATIONS

CERTIFICATIONS REGARDING LOBBYING; DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS; AND DRUG-FREE WORKPLACE REQUIREMENTS

Applicants should refer to the regulations cited below to determine the certification to which they are required to attest. Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 45 CFR Part 93, "New restrictions on Lobbying," and 45 CFR Part 76, "Government-wide Debarment and Suspension (Non procurement) and Government-wide requirements for Drug-Free Workplace (Grants)." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Education determines to award the covered transaction, grant, or cooperative agreement.

1. LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 45 CFR Part 93, for persons entering into a grant or cooperative agreement over \$100,000 as defined at 45 CFR Part 93, Sections 93.105 and 93.110, the applicant certifies that:

(a) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress in connection with the making of any federal grant, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal grant or cooperative agreement:

(b) If any funds other than federal appropriated funds have been or will be paid to any person for influencing or attempting to influence an employee of Congress, or any employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form -LLL, "Disclosure Form to Report Lobbying," in accordance with this instruction:

(c) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subgrants, contracts under grants and cooperative agreements, and subcontracts) and that all subrecipients shall certify and disclose accordingly.

2. DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

As required by executive Order 12549, Debarment and Suspension, and other responsibilities implemented at 45 CFR Part 76, for prospective participants in primary or a lower tier covered transactions, as defined at 45 CFR Part 76, Sections 76.105 and 76.110.

A. The applicant certifies that it and its principals:

(a) Are not presently debarred, suspended proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency.

(b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction violation of federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification; and

(d) Have not within a three-year period preceding this application had one or more public transactions (federal, state, or local) terminated for cause or default; and

B. Where the applicant is unable to certify to any of the statements in this certification, he or she shall attach an explanation to this application.

3. DRUG-FREE WORKPLACE (GRANTEES OTHER THAN INDIVIDUALS)

As required by the Drug-Free Workplace Act of 1988, and implemented at 45 CFR Part 76, Subpart F, for grantees, as defined at 45 CFR Part 76, Sections 76.805 and 76.610-

A. The applicant certifies that it will or will continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition.

(b) Establishing an on-going drug-free awareness program to inform employees about-

(1) The danger of drug abuse in the workplace;

(2) The grantee's policy of maintaining a drug-free workplace;

(3) Any available drug counseling, rehabilitation, and employee assistance programs; and

(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will -

(1) Abide by the terms of the statement; and

(2) Notify the employer in writing of his or her conviction for a violation;

(e) Notifying the agency, in writing, within 10 calendar days after receiving notice under subparagraph (d) (2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title,

to: Director, Grants, and Contracts Service, U.S. Department of Education, 400 Maryland Avenue, S.W., (Room 3124, GSA Regional Office Building No. 3), Washington, DC 20202-4571.

Notice shall include the identification number(s) of each affected grant;

(f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d) (2), with respect to any employee who is so convicted:

(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or

(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f).

B. The grantee shall insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

701 Laurel Street
Menlo Park, CA 94025

Check if there are workplaces on file that are not identified here.

**DRUG-FREE WORKPLACE
 (GRANTEES WHO ARE INDIVIDUALS)**

As required by the Drug-Free Workplace Act of 1988, and implemented at 45 CFR Part 76, Subpart F, for grantees, as defined at 45 CFR Part 76, Sections 76.605 and 76.610-

a. As a condition of the grant, I certify that I will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant, and

b. If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, I will report the conviction, in writing, within 10 calendar days of the conviction, to: Director, Grants and contracts Service, U.S. department of Education, 400 Maryland Avenue, S.W. (Room 3124, GSA Regional Office Building No. 3) Washington, DC 20202-4571. Notice shall include the identification numbers(s) of each affected grant.

ENVIRONMENTAL TOBACCO SMOKE ACT

As required by the Pro-Children Act of 1994, (also known as Environmental Tobacco Smoke), and implemented at Public Law 103-277, Part C requires that:

The applicant certifies that smoking is not permitted in any portion of any indoor facility owned or leased or contracted and used routinely or regularly for the provision of health care services, day care, and education to children under the age of 18. Failure to comply with the provisions of this law may result in the imposition of a civil monetary penalty of up to \$1,000 per day. (The law does not apply to children's services provided in private residence, facilities funded solely by Medicare or Medicaid funds, and portions of facilities used for in-patient drug and alcohol treatment.)

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above certifications.

NAME OF APPLICANT (CONTRACTOR)	City of Menlo Park	CONTRACT #	CSPP-6497
PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE	Alex McIntyre, City Manager		
SIGNATURE	DATE		



STAFF REPORT

City Council Meeting Date: 7/19/2016
Staff Report Number: 16-123-CC

Consent Calendar: Authorize the City Manager to enter into a contract with Cardinal Rules in an amount not to exceed \$68,013.00 for youth and adult sports officials for fiscal year 2016-17

Recommendation

Staff recommends the City Council authorize the City Manager to enter into a contract with Cardinal Rules in an amount not to exceed \$68,013.00 for Youth and Adult Sports Officials for FY 2016-17.

Policy Issues

Supporting youth and adult sports programs with trained officials is consistent with existing City Council policies and goals.

Background

Cardinal Rules has provided the City of Menlo Park with sports officials since 2007.

Analysis

The scope of the work performed by Cardinal Rules includes youth volleyball, youth basketball and adult basketball officiating. Staff recommends the continuation of this scope of work through the coming fiscal year as approved in the 2016-17 City Budget.

Impact on City Resources

The cost of the Cardinal Rules officiating service is \$68013.00 annually. There is sufficient funding allocated in the approved budget to cover the current scope of work for the Cardinal Rules contract.

Environmental Review

Youth and adult sports are not a project under CEQA.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Staff Report #: 16-123-CC

Attachments

A. Professional Services Contract

Report prepared by:

Jarrold Harden

Recreation Coordinator-Sports

PROFESSIONAL SERVICES AGREEMENT

City Manager's Office
701 Laurel St., Menlo Park, CA 94025
tel 650-330-6620



Contract #:
AGREEMENT FOR SERVICES BETWEEN THE CITY OF MENLO PARK AND Cardinal Rules
THIS AGREEMENT made and entered into at Menlo Park, California, this 30th day of June , 2016 , by and between the CITY OF MENLO PARK, a Municipal Corporation, hereinafter referred to as "CITY", and Cardinal Rules, hereinafter referred to as "FIRST PARTY."
<p>WITNESSETH:</p> <p>WHEREAS, CITY desires to retain FIRST PARTY to provide certain professional services for CITY in connection with that certain project called:</p> <p>WHEREAS, FIRST PARTY is licensed to perform said services and desires to and does hereby undertake to perform said services.</p> <p>NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL COVENANTS, PROMISES AND CONDITIONS of each of the parties hereto, it is hereby agreed as follows:</p>
1. SCOPE OF WORK
In consideration of the payment by CITY to FIRST PARTY, as hereinafter provided, FIRST PARTY agrees to perform all the services as set forth in Exhibit "A", Scope of Services.
2. SCHEDULE FOR WORK
<p>FIRST PARTY's proposed schedule for the various services required pursuant to this agreement will be as set forth in Exhibit "A", Scope of Services. CITY will be kept informed as to the progress of work by written reports, to be submitted monthly or as otherwise required in Exhibit "A". Neither party shall hold the other responsible for damages or delay in performance caused by acts of God, strikes, lockouts, accidents or other events beyond the control of the other, or the other's employees and agents.</p> <p>FIRST PARTY shall commence work immediately upon receipt of a "Notice to Proceed" from CITY. The "Notice to Proceed" date shall be considered the "effective date" of the Agreement, as used herein, except as otherwise specifically defined. FIRST PARTY shall complete all the work and deliver to CITY all project related files, records, and materials within one month after completion of all of FIRST PARTY's activities required under this Agreement.</p>
3. PROSECUTION OF WORK
FIRST PARTY will employ a sufficient staff to prosecute the work diligently and continuously and will complete the work in accordance with the schedule of work approved by the CITY. (See Exhibit "A", Scope of Services).

4. COMPENSATION AND PAYMENT

- A. CITY shall pay FIRST PARTY an all-inclusive fee that shall not exceed \$68013.00 as described in Exhibit "A", Scope of Services. This compensation shall be based on the rates described in Exhibit "A". All payments, including fixed hourly rates, shall be inclusive of all indirect and direct charges to the Project incurred by FIRST PARTY. The CITY reserves the right to withhold payment if the City determines that the quantity or quality of the work performed is unacceptable.
- B. FIRST PARTY's fee for the services as set forth herein shall be considered as full compensation for all indirect and direct personnel, materials, supplies and equipment, and services incurred by FIRST PARTY and used in carrying out or completing the work.
- C. Payments shall be monthly for the invoice amount or such other amount as approved by CITY. As each payment is due, a statement describing the services performed shall be submitted to CITY by the FIRST PARTY. This statement shall include, at a minimum, the project title, Agreement Number, the title(s) of personnel performing work, hours spent, payment rate, and a listing of all reimbursable costs. CITY shall have the discretion to approve the invoice and the work completed statement. Payment shall be for the invoice amount or such other amount as approved by CITY.
- D. Payments are due upon receipt of written invoices. CITY shall have the right to receive, upon request, documentation substantiating charges billed to CITY. CITY shall have the right to perform an audit of the FIRST PARTY's relevant records pertaining to the charges.

5. EQUAL EMPLOYMENT OPPORTUNITY

- A. FIRST PARTY, with regard to the work performed by it under this Agreement shall not discriminate on the grounds of race, religion, color, national origin, sex, handicap marital status or age in the retention of sub-consultants, including procurement of materials and leases of equipment.
- B. FIRST PARTY shall take affirmative action to insure that employees and applicants for employment, are treated without regard to their race, color, religion, sex, national origin, marital status or handicap. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation and selection for training including apprenticeship.
- C. FIRST PARTY shall post in prominent places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
- D. FIRST PARTY shall state that all qualified applications will receive consideration for employment without regard to race, color, religion, sex, national origin, marital status or handicap.
- E. FIRST PARTY shall comply with Title VI of the Civil Rights Act of 1964 and shall provide such reports as may be required to carry out the intent of this section.
- F. FIRST PARTY shall incorporate the foregoing requirements of this section in FIRST PARTY's agreement with all sub-consultants.

6. ASSIGNMENT OF AGREEMENT AND TRANSFER OF INTEREST

- A. FIRST PARTY shall not assign this Agreement, and shall not transfer any interest in the same (whether by assignment or novation), without prior written consent of the CITY thereto, provided, however, that claims for money due or to become due to the FIRST PARTY from the CITY under this Agreement may be assigned to a bank, trust company, or other financial institution without such approval. Notice of an intended assignment or transfer shall be furnished promptly to the CITY.
- B. In the event there is a change of more than 30% of the stock ownership or ownership in FIRST PARTY from the date of this Agreement is executed, then CITY shall be notified prior to the date of said change of stock ownership or interest and CITY shall have the right, in event of such change in stock ownership or interest, to terminate this Agreement upon notice to FIRST PARTY. In the event CITY is not notified of any such change in stock ownership or interest, then upon knowledge of same, it shall be deemed that CITY has terminated this Agreement.

7. INDEPENDENT WORK CONTROL

It is expressly agreed that in the performance of the service necessary for compliance with this Agreement, FIRST PARTY shall be and is an independent contractor and is not an agent or employee of CITY. FIRST PARTY has and shall retain the right to exercise full control and supervision of the services and full control over the employment, direction, compensation and discharge of all persons assisting FIRST PARTY in the performance of FIRST PARTY's services hereunder. FIRST PARTY shall be solely responsible for its own acts and those of its subordinates and employees.

8. CONSULTANT QUALIFICATIONS

It is expressly understood that FIRST PARTY is licensed and skilled in the professional calling necessary to perform the work agreed to be done by it under this Agreement and CITY relies upon the skill of FIRST PARTY to do and perform said work in a skillful manner usual to the profession. The acceptance of FIRST PARTY's work by CITY does not operate as a release of FIRST PARTY from said understanding.

9. NOTICES

All notices hereby required under this Agreement shall be in writing and delivered in person or sent by certified mail, postage prepaid or by overnight courier service. Notices required to be given to CITY shall be addressed as follows

Jarrold Harden

CSD

City of Menlo Park

701 Laurel St.

Menlo Park, CA 94025

650-330-2239

jwharden@menlopark.org

Notices required to be given to FIRST PARTY shall be addressed as follows:

Michael Adam

Cardinal Rules

PO BOX 117643

Burlingame, CA 94011

650-270-6453

cardinalrules@msn.com

Provided that any party may change such address by notice, in writing, to the other party and thereafter notices shall be addressed and transmitted to the new address.

10. HOLD HARMLESS

The FIRST PARTY shall defend, indemnify and hold harmless the CITY, its subsidiary agencies, their officers, agents, employees and servants from all claims, suits or actions that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the FIRST PARTY brought for, or on account of, injuries to or death of any person or damage to property resulting from the performance of any work required by this Agreement by FIRST PARTY, its officers, agents, employees and servants. Nothing herein shall be construed to require the FIRST PARTY to defend, indemnify or hold harmless the CITY, its subsidiary agencies, their officers, agents, employees and servants against any responsibility to liability in contravention of Section 2782.8 of the California Civil Code.

11. INSURANCE

- A. FIRST PARTY shall not commence work under this Agreement until all insurance required under this Section has been obtained and such insurance has been approved by the City, with certificates of insurance evidencing the required coverage.
- B. There shall be a contractual liability endorsement extending the FIRST PARTY's coverage to include the contractual liability assumed by the FIRST PARTY pursuant to this Agreement. These certificates shall specify or be endorsed to provide that thirty (30) days' notice must be given, in writing, to the CITY, at the address shown in Section 9, of any pending cancellation of the policy. FIRST PARTY shall notify CITY of any pending change to the policy. All certificates shall be filed with the City.
1. Worker's Compensation and Employer's Liability Insurance:
The FIRST PARTY shall have in effect during the entire life of this Agreement Worker's Compensation and Employer's Liability Insurance providing full statutory coverage. In signing this Agreement, the FIRST PARTY makes the following certification, required by Section 18161 of the California Labor Code: "I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of the Code, and I will comply with such provisions before commencing the performance of the work of this Agreement" (not required if the FIRST PARTY is a Sole Proprietor).
 2. Liability Insurance:
The FIRST PARTY shall take out and maintain during the life of this Agreement such Bodily Injury Liability and Property Damage Liability Insurance (Commercial General Liability Insurance) on an occurrence basis as shall protect it while performing work covered by this Agreement from any and all claims for damages for bodily injury, including accidental death, as well as claims for property damage which may arise from the FIRST PARTY's operations under this Agreement, whether such operations be by FIRST PARTY or by any sub-consultant or by anyone directly or indirectly employed by either of them. The amounts of such insurance shall be not less than One Million Dollars (\$1,000,000) per occurrence and One Million Dollars (\$1,000,000), in aggregate or One Million Dollars (\$1,000,000) combined single limit bodily injury and property damage for each occurrence. FIRST PARTY shall provide the CITY with acceptable evidence of coverage, including a copy of all declarations of coverage exclusions. FIRST PARTY shall maintain Automobile Liability Insurance pursuant to this Agreement in an amount of not less than One Million Dollars (\$1,000,000) for each accident combined single limit or not less than One Million Dollars (\$1,000,000) for any one (1) person, and One Million Dollars (\$1,000,000) for any one (1) accident, and Three Hundred Thousand Dollars, (\$300,000) property damage.
 3. Professional Liability Insurance:
FIRST PARTY shall maintain a policy of professional liability insurance, protecting it against claims arising out of the negligent acts, errors, or omissions of FIRST PARTY pursuant to this Agreement, in the amount of not less than One Million Dollars (\$1,000,000) per claim and in the aggregate. Said professional liability insurance is to be kept in force for not less than one (1) year after completion of services described herein.
- C. CITY and its subsidiary agencies, and their officers, agents, employees and servants shall be named as additional insured on any such policies of Commercial General Liability and Automobile Liability Insurance, (but not for the Professional Liability and Worker's Compensation), which shall also contain a provision that the insurance afforded thereby to the CITY, its subsidiary agencies, and their officers, agents, employees, and servants shall be primary insurance to the full limits of liability of the policy, and that if the CITY, its subsidiary agencies and their officers and employees have other insurance against a loss covered by a policy, such other insurance shall be excess insurance only.
- D. In the event of the breach of any provision of this Section, or in the event any notice is received which indicates any required insurance coverage will be diminished or canceled, CITY, at its option, may, notwithstanding any other provision of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work pursuant to this Agreement.
- E. Prior to the execution of this Agreement, any deductibles or self-insured retentions must be declared to and approved by CITY.

12. PAYMENT OF PERMITS/LICENSES

Contractor shall obtain any license, permit, or approval if necessary from any agency whatsoever for the work/services to be performed, at his/her own expense, prior to commencement of said work/services or forfeit any right to compensation under this Agreement.

13. RESPONSIBILITY AND LIABILITY FOR SUB-CONSULTANTS AND/OR SUBCONTRACTORS

Approval of or by CITY shall not constitute nor be deemed a release of responsibility and liability of FIRST PARTY or its sub-consultants and/or subcontractors for the accuracy and competency of the designs, working drawings, specifications or other documents and work, nor shall its approval be deemed to be an assumption of such responsibility by CITY for any defect in the designs, working drawings, specifications or other documents prepared by FIRST PARTY or its sub-consultants and/or subcontractors.

14. OWNERSHIP OF WORK PRODUCT

Work products of FIRST PARTY for this project, which are delivered under this Agreement or which are developed, produced and paid for under this Agreement, shall become the property of CITY. The reuse of FIRST PARTY's work products by City for purposes other than intended by this Agreement shall be at no risk to FIRST PARTY.

15. REPRESENTATION OF WORK

Any and all representations of FIRST PARTY, in connection with the work performed or the information supplied, shall not apply to any other project or site, except the project described in Exhibit "A" or as otherwise specified in Exhibit "A".

16. TERMINATION OF AGREEMENT

- A. CITY may give thirty (30) days written notice to FIRST PARTY, terminating this Agreement in whole or in part at any time, either for CITY's convenience or because of the failure of FIRST PARTY to fulfill its contractual obligations or because of FIRST PARTY's change of its assigned personnel on the project without prior CITY approval. Upon receipt of such notice, FIRST PARTY shall:
1. Immediately discontinue all services affected (unless the notice directs otherwise); and
 2. Deliver to the CITY all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated or produced by FIRST PARTY in performing work under this Agreement, whether completed or in process.
- B. If termination is for the convenience of CITY, an equitable adjustment in the contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services.
- C. If the termination is due to the failure of FIRST PARTY to fulfill its Agreement, CITY may take over the work and prosecute the same to completion by agreement or otherwise. In such case, FIRST PARTY shall be liable to CITY for any reasonable additional cost occasioned to the CITY thereby.
- D. If, after notice of termination for failure to fulfill Agreement obligations, it is determined that FIRST PARTY had not so failed, the termination shall be deemed to have been effected for the convenience of the CITY. In such event, adjustment in the contract price shall be made as provided in Paragraph B of this Section.
- E. The rights and remedies of the CITY provided in this Section are in addition to any other rights and remedies provided by law or under this Agreement.
- F. Subject to the foregoing provisions, the CITY shall pay FIRST PARTY for services performed and expenses incurred through the termination date.

17. INSPECTION OF WORK

It is FIRST PARTY's obligation to make the work product available for CITY's inspections and periodic reviews upon request by CITY.

18. COMPLIANCE WITH LAWS

It shall be the responsibility of FIRST PARTY to comply with all State and Federal Laws applicable to the work and services provided pursuant to this Agreement, including but not limited to compliance with prevailing wage laws, if applicable.

19. BREACH OF AGREEMENT

- A. This Agreement is governed by applicable federal and state statutes and regulations. Any material deviation by FIRST PARTY for any reason from the requirements thereof, or from any other provision of this Agreement, shall constitute a breach of this Agreement and may be cause for termination at the election of the CITY.
- B. The CITY reserves the right to waive any and all breaches of this Agreement, and any such waiver shall not be deemed a waiver of any previous or subsequent breaches. In the event the CITY chooses to waive a particular breach of this Agreement, it may condition same on payment by FIRST PARTY of actual damages occasioned by such breach of Agreement.

20. SEVERABILITY

The provisions of this Agreement are severable. If any portion of this Agreement is held invalid by a court of competent jurisdiction, the remainder of the Agreement shall remain in full force and effect unless amended or modified by the mutual consent of the parties.

21. CAPTIONS

The captions of this Agreement are for convenience and reference only and shall not define, explain, modify, limit, exemplify, or aid in the interpretation, construction, or meaning of any provisions of this Agreement.

22. LITIGATION OR ARBITRATION

In the event that suit or arbitration is brought to enforce the terms of this Agreement, the prevailing party shall be entitled to litigation costs and reasonable attorneys' fees. The Dispute Resolution provisions are set forth on Exhibit "B", 'Dispute Resolution' attached hereto and by this reference incorporated herein.

23. RETENTION OF RECORDS

Contractor shall maintain all required records for three years after the City makes final payment and all other pending matters are closed, and shall be subject to the examination and /or audit of the City, a federal agency, and the state of California.

24. TERM OF AGREEMENT

This Agreement shall remain in effect for the period of July 1, 2016 through June 30, 2017 unless extended, amended, or terminated in writing by CITY.

25. ENTIRE AGREEMENT

This document constitutes the sole Agreement of the parties hereto relating to said project and states the rights, duties, and obligations of each party as of the document's date. Any prior Agreement, promises, negotiations, or representations between parties not expressly stated in this document are not binding. All modifications, amendments, or waivers of the terms of this Agreement must be in writing and signed by the appropriate representatives of the parties to this Agreement.

26. STATEMENT OF ECONOMIC INTEREST

Consultants, as defined by Section 18701 of the Regulations of the Fair Political Practices Commission, Title 2, Division 6 of the California Code of Regulations, are required to file a Statement of Economic Interests with 30 days of approval of a contract services agreement with the City of its subdivisions, on an annual basis thereafter during the term of the contract, and within 30 days of completion of the contract.

Based upon review of the Consultant's Scope of Work and determination by the City Manager, it is determined that Consultant IS / IS NOT required to file a Statement of Economic Interest. A statement of Economic Interest shall be filed with the City Clerk's office no later than 30 days after the execution of the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

FIRST PARTY:


Signature

06-14-2016
Date

CARDINAL RULES, LLC
Name

OWNER
Title

30-0494172
Tax ID#

APPROVED AS TO FORM:

William L. McClure, City Attorney

Date

CITY OF MENLO PARK:


Signature

click here to enter text 6/14/16
Date

~~CHEYL~~ BRANDELL
Name

Choose option CSD DIRECTOR
Title

ATTEST:

Pamela Aguilar, City Clerk, City of Menlo Park

Date

Exhibit A

Adult Basketball League for fiscal Year 2016-17

1. League will operated from July 2016- June 2017

Monday/Wednesday/Friday

There are 3 divisions

2. There are 3 games per league per night and either 6 or 7 teams per league
10 regular season games + playoffs

3. 2 referees per game for "B" level games on Monday and 40+ on Friday
3 referee's per game "A" Level games on Wednesday

4. Cost breakdown by League		Per Game		
B League and 40 + League	243 games	\$83	\$	20,169.00
A League	90 games	\$130	\$	11,700.00
TOTAL			\$	31,869.00

Exhibit B

Youth Basketball League for fiscal Year 2016-17

1. League will operated from December 2016-April 2017

Monday - Saturday

3rd grade -7th grade

2. There will be 8 regular season games + playoffs

3. 2 referees per game for 5th-7th grades

1 referee's per game for 3rd/4th

4. Cost breakdown by League		per game		
3rd and 4th grade	253	\$36.00	\$	9,108.00
5th-7th grade	297	\$68.00	\$	20,196.00
contingency				
	TOTAL		\$	29,304.00

All numbers are based on same team numbers as last season

Youth Volleyball League for fiscal Year 2016-17

1. League will operated from September 2016-December 2016

Monday/Tuesday/Thursday

4th grade - 8th grade

2. There will be 8 regular season games + playoffs

3. 1 referee for all games

1 referee's per game for 3rd/4th

4. Cost breakdown				
3rd and 4th grade	190	\$36.00	\$	6,840.00
	TOTAL		\$	6,840.00

GRAND TOTAL **\$ 36,144.00**



STAFF REPORT

City Council

Meeting Date:

7/19/2016

Staff Report Number:

16-131-CC

Consent Calendar:

Adopt a resolution requesting action from the Federal Aviation Administration to reduce aircraft noise in Menlo Park

Recommendation

Staff recommends that the City Council adopt the attached resolution, which calls for the Federal Aviation Administration (FAA) to take steps to reduce aircraft noise over Menlo Park.

Policy Issues

[Click here to enter text.](#)

Background

Residents from Menlo Park and the Peninsula area are currently subjected to aircraft noise caused by aircraft traveling to and from three major airports and several smaller airfields in the area. The FAA is currently implementing the Next Generation Air Transportation System (NextGen), a multibillion dollar modernization program that seeks to make the country's airspace safer and more efficient. This would primarily be accomplished by switching from ground-based radar systems to satellite-based navigation and aircraft tracking. NextGen is targeted for full implementation by 2025 and involves redesigning many of the flight paths near major metropolitan areas, including the San Francisco Bay area. Over the last year, the FAA has been shifting to its newly designed flight paths, and in the process, has subjected Menlo Park and Peninsula area residents to increased aircraft noise.

On April 4, 2016, U.S. Representatives Anna G. Eshoo, Sam Farr and Jackie Speier announced the formation of a Select Committee on South Bay Arrivals. The Select Committee is comprised of 12 local elected officials from San Mateo County, Santa Clara County and Santa Cruz County. The purpose of the Select Committee is to develop regional solutions to address aircraft noise.

Councilmember Peter Ohtaki represents Menlo Park on the San Francisco Airport/Community Roundtable (SFO Roundtable) and was appointed by Representative Jackie Speier as an Alternate on the Select Committee.

Analysis

Recognizing that Menlo Park residents have been negatively affected by increased aircraft noise caused by the implementation of the FAA's NextGen program, the City of Menlo Park is seeking regional solutions to this problem.

Below are some of the issues that have been identified and recommended actions.

1. Mid-Peninsula flight route

An increased number of flights using the BDEGA or Point Reyes West route over the Peninsula has shifted more flights over noise-sensitive residential areas (Attachment A).

Recommendation: Request that the FAA reduce the arrivals into San Francisco International (SFO) using the BDEGA or Point Reyes West route over the Peninsula and instead utilize the BDEGA East route over the San Francisco Bay. If the BDEGA/Point Reyes West route must be utilized, that airplanes be required to fly at a higher altitude over the mid-Peninsula before beginning their U-turn over Palo Alto.

2. Flight altitudes

The FAA previously agreed with Representative Eshoo in 2000 that the minimum altitude over the MENLO waypoint be 5,000 feet under visual flight rules (clear weather). Under NextGen, the altitude over the MENLO waypoint is 4,000 feet regardless of weather conditions in order to adhere to an optimized profile descent of 2.85 degrees. The average altitude over the MENLO waypoint has therefore decreased from 4,928 feet during September 2010 to 4,452 feet in September 2015.

Recommendation: Request that the FAA increase the minimum altitude over the MENLO waypoint during visual flight conditions, as previously agreed to with Representative Eshoo.

3. Flight frequency/concentration

Several SFO arrival routes converge over the MENLO waypoint resulting in a steady increase from approximately 3,900 airplanes in September 2010 to nearly 5,000 in September 2015.

Recommendation: Request that the FAA disperse arrivals by utilizing other waypoints in addition to MENLO, preferably over the San Francisco Bay and away from residential areas as much as possible.

The attached resolution (Attachment B) includes these recommendations and expresses opposition to any route modifications that would have the effect of concentrating additional flights over Menlo Park. In particular, any route modification that might add additional aircraft to a route that approaches the MENLO waypoint would have a substantial noise impact on Menlo Park.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

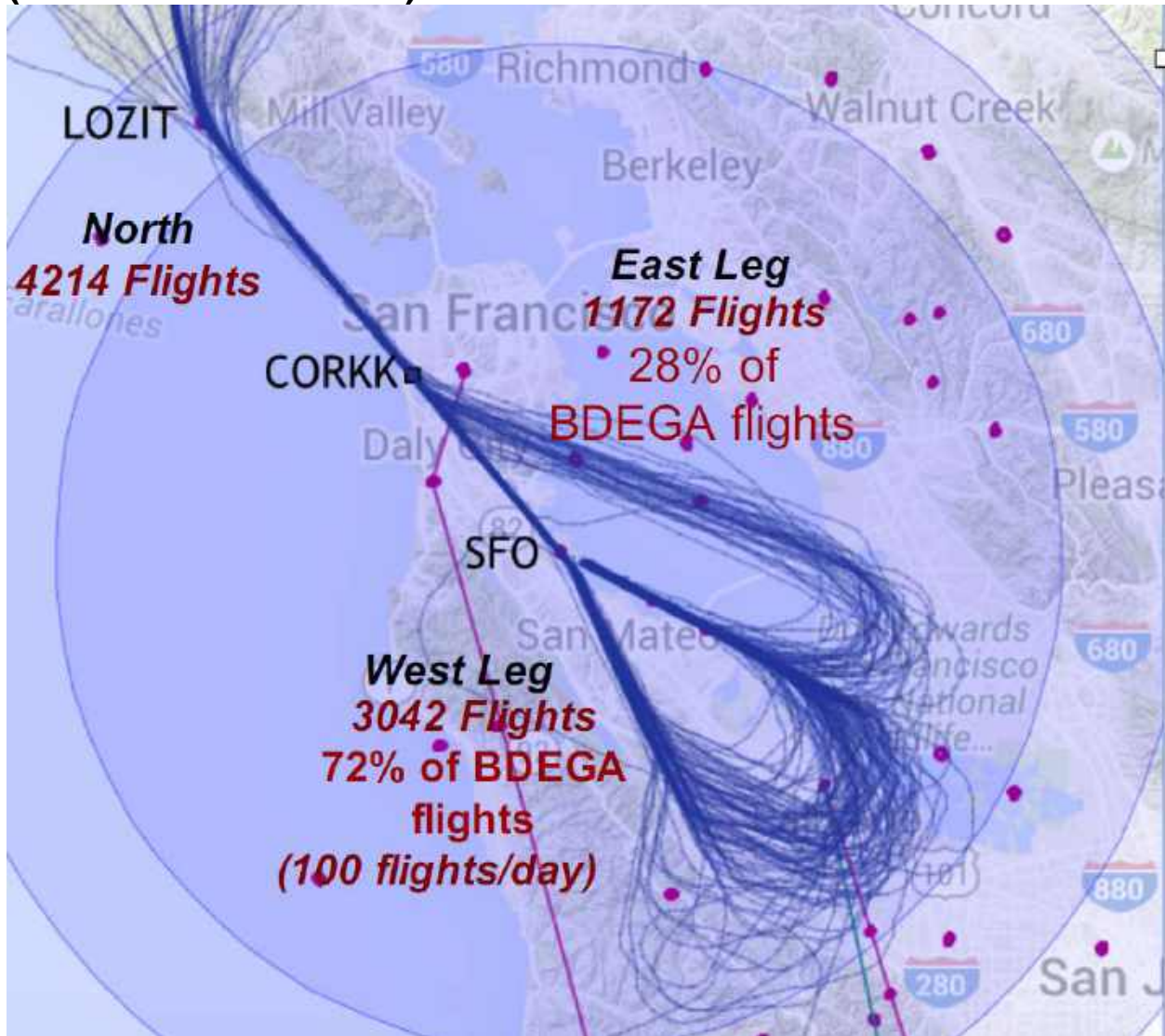
Attachments

- A. SFO Northern Arrivals Approach (BDEGA STAR Route) map
- B. Resolution

Report prepared by:

Clay J. Curtin, Assistant to the City Manager

SFO Northern Arrivals Approach (BDEGA STAR Route)



- Submitted to FAA for consideration on 10/9/2016.
- Traffic on west leg (over populated areas) significantly increased and on east leg (over the bay) significantly decreased recently.
- **Not addressed in FAA initiatives.**

Source: Californians for Quiet Skies (Portola Valley)

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RESOLUTION NO.

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MENLO PARK REQUESTING ACTION FROM THE FEDERAL AVIATION ADMINISTRATION TO REDUCE AIRCRAFT NOISE IN THE CITY OF MENLO PARK

WHEREAS, the City of Menlo Park desires to maintain a pleasant quality of life for our residents; and

WHEREAS, the City of Menlo Park will cooperate with all local, State and National agencies and provide its best efforts toward minimizing aircraft noise; and

WHEREAS, the City participates in the San Francisco Airport/Community Roundtable (SFO Roundtable) in an effort to reduce the impacts of commercial flights over the city of Menlo Park; and

WHEREAS, U.S. Representatives Anna Eshoo, San Farr and Jackie Speier have formed a Select Committee on South Bay Arrivals to develop regional solutions to address aircraft noise; and

WHEREAS, the City Council seeks to have its position on aircraft noise articulated to the Federal Aviation Administration (FAA), the Select Committee and the SFO Roundtable.

NOW, THEREFORE BE IT RESOLVED by the Menlo Park City Council as follows:

1. Menlo Park residents have been negatively affected by increased aircraft noise caused by the implementation of the FAA's Next Generation Air Transportation system (NextGen) in 2015.
2. The City Council supports regional cooperation in addressing aircraft noise, and supports the efforts of the Select Committee and the SFO Roundtable to seek out and implement these solutions.
3. The City Council requests that the FAA reduce the arrivals into San Francisco International (SFO) using the BDEGA or Point Reyes West route over the Peninsula and instead utilize the BDEGA East route over the San Francisco Bay.
4. If the BDEGA/Point Reyes West route must be utilized, that airplanes be required to fly at a higher altitude over the mid-Peninsula before beginning their U-turn over Palo Alto.
5. The FAA previously agreed with Representative Eshoo in 2000 that the minimum altitude over the MENLO waypoint be 5,000 feet under visual flight rules (VFR). Under NextGen, the altitude over the MENLO waypoint is 4,000 feet regardless of

weather conditions in order to adhere to an Optimized Profile Descent (OPD) of 2.85 degrees. The average altitude over the MENLO waypoint has therefore decreased from 4,928 feet during September 2010 to 4,452 feet in September 2015.

6. The City Council requests that the FAA increase the minimum altitude over the MENLO waypoint during visual flight conditions, as previously agreed with Representative Eshoo.
7. Several SFO arrival routes converge over the MENLO waypoint resulting in a steady increase from approximately 3,900 airplanes in September 2010 to nearly 5,000 in September 2015.
8. The City Council requests that the FAA disperse arrivals by utilizing other waypoints in addition to MENLO, preferably over the San Francisco Bay.
9. The City is vehemently opposed to any modifications to routes that would have the effect of concentrating additional flights over Menlo Park. In particular, any modification of routes which add additional aircraft to a route that approaches the MENLO waypoint would have a substantial noise impact on Menlo Park.
10. After the Select Committee on South Bay Arrivals completes its work, the FAA must put in place a continuous mechanism for gaining feedback from mid-Peninsula communities affected or potentially affected by changes in aircraft routes and procedures.

I, Pamela Aguilar, City Clerk of the City of Menlo Park, do hereby certify that the above and foregoing City Council resolution was duly and regularly passed and adopted at a meeting of said City Council on the nineteenth day of July, 2016, by the following votes:

AYES:

NOES:

ABSENT:

ABSTAIN:

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City on this nineteenth day of July, 2016.

Pamela Aguilar, CMC
City Clerk



STAFF REPORT

City Council

Meeting Date: 7/19/2016
Staff Report Number: 16-132-CC

Consent Calendar: Approve a resolution to amend the City-wide salary schedule effective July 10, 2016

Recommendation

Staff recommends that the City Council approve a Resolution to Amend the City's Salary Schedule effective July 10, 2016.

Policy Issues

In accordance with the City personnel rules and regulations, the City Council is required to adopt changes to the City's Salary Schedule.

Background

In July 2015, the City hired Koff & Associates to conduct a comprehensive classification and compensation study to achieve two primary goals. First, Koff & Associates was asked to work with staff to establish modern job descriptions that reflect both current laws and the duties and responsibilities of incumbent employees (Classification Study). Second, Koff & Associates was tasked with providing the City and bargaining units with a comprehensive market survey of total compensation for benchmark positions that could be used in a wage reopener in the AFSCME and SEIU labor contracts (Compensation Study). In February, 2016, the City Council received the Compensation Report data from staff and subsequently provided authority to the City's negotiation team to meet and confer with AFSCME and SEIU on the wage reopener. Those negotiations were finalized on June 2, 2016 and the Council took action at their June 21, 2016 meeting to modify wages for those positions that were below market median total compensation.

As part of the 2016-17 budget process, the City Council adopted a comprehensive City-wide salary schedule on June 21, 2016. The salary schedule included new salary ranges effective July 10, 2016 for members of the Menlo Park Police Officers Association which were agreed to in December 2015. The salary schedule also included new salary ranges that reflected wage negotiations with the City's non-safety bargaining units, AFSCME and SEIU.

Analysis

The final aspect of the Classification Study that requires City Council action is in the area of incumbent employees who are currently performing duties at a level that is higher than what the current classification system provides. As part of their work on the Classification Study, Koff identified eight incumbent employees who perform job duties typically assigned to a higher level classification out of operational necessity for the City. Koff has prepared new job descriptions that clearly outline the duties performed by

the incumbent and those new classifications now require a City Council adopted salary range.

It is important to note that the City's current labor contracts require that employees be compensated for the level of work performed, commonly referred to as out-of-class pay. Koff & Associates has worked with the City to establish the need for reclassifications, the City has discussed the impacts of the reclassifications with incumbent employees and their labor representatives, and this action, if approved by the City Council, will remedy the situation of employees working out-of-class at the earliest practical opportunity. As such, the recommendation is to implement the reclassifications for the pay period beginning July 10, 2016 which has a pay date of July 29, 2016.

Impact on City Resources

This action results in no change in the City's authorized full-time equivalent employees or the operating surplus as approved in the 2016-17 budget.

Environmental Review

No environmental review is required.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Resolution to amend the Salary Schedule
- B. Citywide Employee Salary Schedule
- C. Classification report from Koff & Associates

Report prepared by:

Lenka Diaz, Human Resources Manager

RESOLUTION NO.

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MENLO
PARK AMENDING THE SALARY SCHEDULE**

WHEREAS, pursuant to the Personnel System Rules, the City Manager prepared a Compensation Plan; and

NOW, THEREFORE, BE IT RESOLVED that the following compensation provisions shall be established in accordance with the City's Personnel System rules.

BE IT FURTHER RESOLVED that any previous enacted compensation provisions contained in Resolution No. 6327 and subsequent amendments shall be superseded by this Resolution.

BE IT FURTHER RESOLVED that the changes contained herein shall be effective July 10, 2016.

I, Pamela Aguilar, City Clerk of the City of Menlo Park, do hereby certify that the above and foregoing Resolution was duly and regularly passed and adopted at a meeting by said Council on the nineteenth day of July 2016, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City on this nineteenth day of July 2016.

Pamela Aguilar, CMC
City Clerk

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Classification Title (Council approved 6/21/16)	New Classification Title (for Council approval on 7/19/16)	Minimum (Step A)	Step B	Step C	Step D	Maximum (Step E)
Accountant	(deleted)	\$ 74,597	\$ 78,123	\$ 81,808	\$ 85,743	\$ 89,829
Accountant I		\$ 74,645	\$ 78,378	\$ 82,297	\$ 86,412	\$ 90,733
Accountant II		\$ 81,758	\$ 85,623	\$ 89,662	\$ 93,974	\$ 98,453
Accounting Assistant I		\$ 52,934	\$ 55,443	\$ 58,003	\$ 60,713	\$ 63,522
Accounting Assistant II		\$ 58,003	\$ 60,713	\$ 63,522	\$ 66,491	\$ 69,611
Administrative Assistant		\$ 58,177	\$ 60,895	\$ 63,713	\$ 66,691	\$ 69,820
Administrative Services Director		\$ 146,206		Open Range		\$ 182,756
Assistant City Manager		\$ 154,402		Open Range		\$ 203,616
Assistant Community Development Director		\$ 115,283		Open Range		\$ 150,619
(new)	Assistant Community Services Director	\$ 117,939		Open Range		\$ 147,424
Assistant Director of Public Works	Assistant Public Works Director	\$ 128,099		Open Range		\$ 160,124
Assistant Engineer		\$ 90,030	\$ 94,320	\$ 98,830	\$ 103,548	\$ 108,481
Assistant Planner		\$ 81,571	\$ 85,407	\$ 89,501	\$ 93,766	\$ 98,245
(new)	Assistant Library Services Director	\$ 117,939		Open Range		\$ 147,424
(new)	Associate Engineer	\$ 95,465	\$ 100,035	\$ 104,804	\$ 109,867	\$ 115,189
Associate Civil Engineer		\$ 101,021	\$ 105,857	\$ 110,903	\$ 116,261	\$ 121,893
Associate Planner		\$ 89,501	\$ 93,766	\$ 98,245	\$ 102,946	\$ 107,873
Associate Transportation Engineer		\$ 105,857	\$ 110,903	\$ 116,261	\$ 121,893	\$ 127,799
Branch Library Manager		\$ 86,019	\$ 90,118	\$ 94,427	\$ 98,936	\$ 103,648
Building Custodian		\$ 52,881	\$ 55,388	\$ 57,945	\$ 60,652	\$ 63,459
Building Inspector		\$ 86,717	\$ 90,887	\$ 95,219	\$ 99,771	\$ 104,535
Business Manager		\$ 87,905	\$ 92,120	\$ 96,509	\$ 101,120	\$ 105,958
Child Care Teacher I		\$ 47,317	\$ 49,463	\$ 51,703	\$ 54,059	\$ 56,616
Child Care Teacher II		\$ 52,881	\$ 55,388	\$ 57,945	\$ 60,652	\$ 63,459
Child Care Teacher's Aide		\$ 35,501	\$ 37,107	\$ 38,786	\$ 40,523	\$ 42,312
City Attorney		n/a		Set by contract		\$ 108,000
City Clerk		\$ 97,715		Open Range		\$ 122,143
City Manager		n/a		Set by contract		\$ 217,500
Code Enforcement Officer		\$ 74,597	\$ 78,123	\$ 81,808	\$ 85,743	\$ 89,829
Communications Dispatcher		\$ 75,641	\$ 79,217	\$ 82,954	\$ 86,943	\$ 91,087
Communications and Records Manager		\$ 103,648	\$ 108,678	\$ 113,898	\$ 119,390	\$ 125,132
Communications Training Dispatcher		\$ 79,217	\$ 82,954	\$ 86,943	\$ 91,087	\$ 95,442
Community Development Director		\$ 146,010		Open Range		\$ 182,511
Community Development Technician		\$ 60,652	\$ 63,459	\$ 66,425	\$ 69,542	\$ 72,809
		\$ 63,442	\$ 66,379	\$ 69,481	\$ 72,741	\$ 76,159
Community Services Director		\$ 148,007		Open Range		\$ 185,008
Community Services Manager	(deleted)	\$ 101,141	\$ 105,962	\$ 111,081	\$ 116,463	\$ 122,105
Community Services Officer		\$ 62,030	\$ 64,947	\$ 67,955	\$ 71,180	\$ 74,597
Community Services Superintendent	(deleted)	\$ 92,908		Open Range		\$ 116,134
Construction Inspector		\$ 81,808	\$ 85,743	\$ 89,829	\$ 94,124	\$ 98,618
Contracts Specialist		\$ 65,504	\$ 68,584	\$ 71,760	\$ 75,166	\$ 78,774
Custodial Services Supervisor		\$ 60,848	\$ 63,664	\$ 66,639	\$ 69,766	\$ 73,044
Deputy City Clerk		\$ 67,947	\$ 71,180	\$ 74,597	\$ 78,123	\$ 81,808
Engineering Services Manager		\$ 128,099		Open Range		\$ 160,124
Engineering Technician I		\$ 68,194	\$ 71,352	\$ 74,739	\$ 78,326	\$ 82,029
Engineering Technician II		\$ 76,449	\$ 80,046	\$ 83,810	\$ 87,828	\$ 92,013
Equipment Mechanic		\$ 67,947	\$ 71,180	\$ 74,597	\$ 78,123	\$ 81,808
Executive Assistant		\$ 66,425	\$ 69,542	\$ 72,809	\$ 76,234	\$ 79,819
Executive Assistant to the City Mgr		\$ 70,764		Open Range		\$ 86,013
Facilities Maintenance Technician I		\$ 56,616	\$ 59,223	\$ 62,030	\$ 64,947	\$ 67,955
Facilities Maintenance Technician II		\$ 62,030	\$ 64,947	\$ 67,955	\$ 71,180	\$ 74,597
Finance & Budget Manager		\$ 115,260		Open Range		\$ 145,860
Gymnastics Instructor		\$ 37,882	\$ 39,596	\$ 41,384	\$ 43,231	\$ 45,219
Housing & Economic Development Manager		\$ 110,963		Open Range		\$ 138,704
Human Resources Analyst	(deleted)	\$ 86,337		Open Range		\$ 102,156
Human Resources Manager		\$ 115,260		Open Range		\$ 145,860
Human Resources Technician		\$ 61,465	\$ 64,373	\$ 67,247	\$ 70,528	\$ 73,845
Information Technology Manager		\$ 115,260		Open Range		\$ 145,860
Information Technology Specialist I		\$ 64,528	\$ 67,755	\$ 71,143	\$ 74,701	\$ 78,437
Information Technology Specialist II		\$ 71,697	\$ 75,066	\$ 78,597	\$ 82,293	\$ 86,239
Information Technology Supervisor		\$ 85,680	\$ 95,236	\$ 100,248	\$ 105,525	\$ 111,078
Junior Engineer		\$ 72,627	\$ 76,258	\$ 80,071	\$ 84,075	\$ 88,279
Librarian I		\$ 63,459	\$ 66,425	\$ 69,542	\$ 72,809	\$ 76,234
Librarian II		\$ 71,180	\$ 74,597	\$ 78,123	\$ 81,808	\$ 85,743
Librarian III	Senior Librarian	\$ 82,072	\$ 86,019	\$ 90,118	\$ 94,427	\$ 98,936
Library Assistant I		\$ 49,463	\$ 51,703	\$ 54,059	\$ 56,616	\$ 59,223
Library Assistant II		\$ 54,059	\$ 56,616	\$ 59,144	\$ 62,030	\$ 64,947
Library Assistant III		\$ 59,144	\$ 62,030	\$ 64,947	\$ 67,955	\$ 71,108
Library Clerk		\$ 34,674	\$ 36,242	\$ 37,882	\$ 39,596	\$ 41,384
Library Page		\$ 25,437	\$ 26,586	\$ 27,790	\$ 29,048	\$ 30,363
Library Services Director		\$ 142,396		Open Range		\$ 177,995
Literacy Program Manager		\$ 73,044	\$ 76,480	\$ 80,076	\$ 83,915	\$ 87,914
Maintenance Worker I		\$ 54,059	\$ 56,616	\$ 59,144	\$ 62,030	\$ 64,947
Maintenance Worker II		\$ 59,144	\$ 62,030	\$ 64,947	\$ 67,955	\$ 71,180
Management Analyst I		\$ 78,311	\$ 82,227	\$ 86,339	\$ 90,656	\$ 95,189
Management Analyst II		\$ 89,498	\$ 93,802	\$ 98,273	\$ 102,972	\$ 107,888
Management Analyst-Confidential		\$ 93,734		Open Range		\$ 121,520
Night Clerk	(deleted)	\$ 37,107	\$ 38,786	\$ 40,523	\$ 42,312	\$ 44,250
Office Assistant		\$ 48,579	\$ 50,794	\$ 53,093	\$ 55,609	\$ 58,177
Parking Enforcement Officer		\$ 54,059	\$ 56,616	\$ 59,144	\$ 62,030	\$ 64,947
Permit Manager		\$ 101,804	\$ 106,675	\$ 111,781	\$ 117,109	\$ 122,767
Permit Technician		\$ 63,442	\$ 66,378	\$ 69,481	\$ 72,741	\$ 76,158
Plan Check Engineer		\$ 101,983	\$ 106,865	\$ 111,959	\$ 117,368	\$ 123,053
Planning Technician		\$ 72,741	\$ 76,158	\$ 79,741	\$ 83,491	\$ 87,494
Police Chief		\$ 157,760		Open Range		\$ 197,199
Police Commander		\$ 141,984		Open Range		\$ 177,480

City of Menlo Park
Salary Schedule

Classification Title (Council approved 6/21/16)	New Classification Title (for Council approval on 7/19/16)	Minimum (Step A)	Step B	Step C	Step D	Maximum (Step E)
Police Corporal		\$ 99,412	\$ 104,383	\$ 109,602	\$ 115,082	\$ 120,836
Police Lieutenant		\$ 124,781		Open Range		\$ 155,976
Police Officer		\$ 92,369	\$ 96,987	\$ 101,836	\$ 106,928	\$ 112,275
Police Records Specialist		\$ 59,144	\$ 62,030	\$ 64,947	\$ 67,955	\$ 71,180
Police Recruit		n/a		Hourly Rate		\$ 35,9707
Police Sergeant		\$ 108,147	\$ 113,554	\$ 119,232	\$ 125,193	\$ 131,453
Principal Planner		\$ 108,070	\$ 114,836	\$ 120,332	\$ 126,068	\$ 130,322
Program Aide/Driver		\$ 33,964	\$ 35,501	\$ 37,107	\$ 38,786	\$ 40,523
Program Assistant		\$ 48,386	\$ 50,592	\$ 52,881	\$ 55,388	\$ 57,945
Property and Court Specialist		\$ 62,030	\$ 64,947	\$ 67,955	\$ 71,180	\$ 74,597
Public Works Director		\$ 149,976		Open Range		\$ 187,468
Public Works Superintendent		\$ 92,908		Open Range		\$ 116,134
Public Works Supervisor - City Arborist		\$ 90,006	\$ 94,321	\$ 98,815	\$ 103,536	\$ 108,490
Public Works Supervisor - Facilities		\$ 90,646	\$ 94,992	\$ 99,518	\$ 104,273	\$ 109,262
Public Works Supervisor - Fleet		\$ 92,088	\$ 96,503	\$ 101,101	\$ 105,931	\$ 110,999
Public Works Supervisor - Park		\$ 85,682	\$ 89,789	\$ 94,068	\$ 98,562	\$ 103,278
Public Works Supervisor - Streets		\$ 85,682	\$ 89,789	\$ 94,068	\$ 98,562	\$ 103,278
Recreation Aide		\$ 32,494	\$ 33,964	\$ 35,501	\$ 37,107	\$ 38,786
Recreation Coordinator		\$ 63,664	\$ 66,639	\$ 69,766	\$ 73,044	\$ 76,480
Recreation Leader		\$ 25,437	\$ 26,586	\$ 27,790	\$ 29,048	\$ 30,363
Recreation Supervisor		\$ 78,375	\$ 82,072	\$ 83,514	\$ 90,118	\$ 94,427
Red Light Photo Enforcement Specialist		\$ 69,542	\$ 72,809	\$ 76,234	\$ 79,819	\$ 83,646
Revenue and Claims Manager		\$ 87,857	\$ 92,082	\$ 96,471	\$ 101,084	\$ 105,910
Senior Building Inspector		\$ 97,327	\$ 101,983	\$ 106,865	\$ 111,959	\$ 117,368
Senior Civil Engineer		\$ 111,260	\$ 116,635	\$ 122,286	\$ 128,211	\$ 134,458
Senior Communications Dispatcher		\$ 82,954	\$ 86,943	\$ 91,087	\$ 95,442	\$ 99,998
Senior Engineering Technician		\$ 82,029	\$ 85,899	\$ 90,030	\$ 94,320	\$ 98,830
(new)	Senior Equipment Mechanic	\$ 74,759	\$ 78,406	\$ 82,094	\$ 85,896	\$ 89,972
Senior Facilities Maintenance Technician		\$ 67,947	\$ 71,180	\$ 74,597	\$ 78,123	\$ 81,808
Senior Library Page		\$ 34,674	\$ 36,242	\$ 37,882	\$ 39,596	\$ 41,384
Senior Maintenance Worker		\$ 67,947	\$ 71,180	\$ 74,597	\$ 78,123	\$ 81,808
Senior Office Assistant		\$ 53,093	\$ 55,609	\$ 58,177	\$ 60,895	\$ 63,713
Senior Planner		\$ 98,245	\$ 102,946	\$ 107,873	\$ 113,015	\$ 118,475
Senior Police Records Specialist		\$ 62,030	\$ 64,947	\$ 67,955	\$ 71,180	\$ 74,597
(new)	Senior Program Assistant	\$ 58,762	\$ 61,508	\$ 64,395	\$ 67,420	\$ 70,592
Senior Recreation Leader		\$ 30,363	\$ 31,736	\$ 33,173	\$ 34,674	\$ 36,242
(new)	Senior Sustainability Specialist	\$ 73,692	\$ 77,217	\$ 80,913	\$ 84,770	\$ 88,865
Senior Transportation Engineer		\$ 111,260	\$ 116,635	\$ 122,286	\$ 128,211	\$ 134,458
Senior Water System Operator		\$ 67,947	\$ 71,180	\$ 74,597	\$ 78,123	\$ 81,808
Sustainability Manager		\$ 92,114	\$ 96,521	\$ 101,141	\$ 105,962	\$ 111,081
Sustainability Specialist		\$ 63,459	\$ 66,425	\$ 69,542	\$ 72,809	\$ 76,234
Transportation Demand Management Coordinator		\$ 83,646	\$ 87,631	\$ 91,818	\$ 96,211	\$ 100,816
Transportation Manager		\$ 128,099		Open Range		\$ 160,124
Water Quality Specialist		\$ 72,809	\$ 76,234	\$ 79,819	\$ 83,646	\$ 87,631
Water System Operator II		\$ 63,381	\$ 66,315	\$ 69,414	\$ 72,671	\$ 76,085
Water System Supervisor		\$ 86,768	\$ 90,903	\$ 95,246	\$ 99,803	\$ 104,580



CLASSIFICATION STUDY

City of Menlo Park

June 2016

Submitted By:

Koff & Associates

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INTRODUCTION

Background

In 2015, the City of Menlo Park (“the City”) contracted with Koff & Associates (“K&A”) to conduct a classification and total compensation study for all City classifications. All classification and compensation findings, recommendations, and options for implementations are in Volumes I and II of this report.

This classification review process was precipitated by:

- The concern of management that the classification descriptions should reflect the level and scope of work performed;
- To ensure that classification descriptions reflect current operations, responsibilities, duties, qualifications, regulatory requirements, and technology;
- To reflect past and allow for future organizational changes; and
- The desire to ensure that the City has adequate career paths and a classification system that fosters career growth and service within the organization.

Goals and Objectives

The goals and objectives of the study were to:

- Recognize the scope and level of responsibility of various positions including designing classifications with clearly defined differences and establishing and consistently applying standards for specification language;
- Develop recommendations that would be perceived as equitable by management and employees alike by maintaining regular and clear communication with employees and management, making classification decisions based on work performed (rather than individual competencies and experience), avoiding using classifications to resolve compensation issues and to reward performance, and documenting processes and procedures as appropriate;
- Provide for growth and flexibility of assignment, where feasible, in recognition that some job duties and responsibilities may evolve over time;
- Provide adequate career paths that will foster career service within the City;
- Develop classification descriptions that clearly state minimum requirements (i.e. knowledge, skills, abilities, education, experience, certifications, and licenses) of each classification that are consistent with experience and training that is clearly obtainable by positions immediately below on the career ladder and clarify opportunities for promotion and/or cross training;
- Provide a classification structure that ensures regulatory compliance, including allocation of each position to the correct classification with appropriate Fair Labor Standards Act (FLSA) designation, as well as, meeting Federal Americans with Disabilities Act (ADA) regulations; and
- Develop a Classification Plan that documents the classification study methodology, findings and recommendations and serves as a guide for the City to maintain the Plan in the future.

Classification Study Methodology



The following provides an overview of the classification study methodology utilized to develop the Classification Plan.

- A. Position Description Questionnaire (PDQ) Completion & Review
 - Employees completed PDQ forms and their supervisors and management reviewed, commented, and signed off on the forms.

- B. Employee and Supervisor Interviews
 - Employees were interviewed to clarify and supplement the PDQ data.
 - Supervisors and management were interviewed to clarify and/or confirm the information collected in the interviews with staff and to respond to potential perception differences regarding roles, tasks, and scope.

- C. Classification Concept and Position Allocation Development
 - Following the analysis of the classification information gathered, classification concepts and position allocations were developed and recommended.
 - Classification concept recommendations may include expanding or collapsing class series and/or separating or combining classifications assigned to different functional areas; identifying and defining classification levels and career ladders; and updating established titling guidelines for the studied classifications for appropriate and consistent titling.
 - Specific position allocation recommendations include specifying current and proposed classification title and impact of the recommendations (reclassification, title change, or no change (i.e., update of classification description format and/or content only)).
 - Recommendations for title change and reclassification are made to more clearly reflect the level and scope being performed, as well as establish consistency with the labor market and industry standards.
 - Appendix I contains the classification recommendations for each position studied.

- D. Draft Class Description Development
 - New and/or updated class descriptions were developed for each proposed classification, updating duties, responsibilities, and minimum qualifications of each class specification.
 - A consistent classification description format was developed including title, definition, supervision received/exercised, class (distinguishing) characteristics, examples of typical functions, qualifications (knowledge and abilities, education and experience, and licenses and certifications), physical demands, and environmental conditions.
 - Compliance with FLSA and ADA requirements was reviewed and updated.

- E. Class Description Review and Update
 - Draft copies of the new classification descriptions were submitted to employees and management to provide comments and concerns regarding any modifications and to ensure that no factual information was overlooked and that the recommendations were fair and consistent.
 - Allocation recommendations and/or classification descriptions were revised, as appropriate, based on employee and management feedback. The final classification descriptions have been delivered to the City under separate cover.

- F. Final Report Development



- The Final Report was developed and contains: goals and objectives, classification methodology and recommendations; classification concepts; classification plan maintenance; and classification descriptions.

CLASSIFICATION PLAN CONCEPTS

The Purpose of a Classification Plan

A Classification Plan is a systematic framework for grouping jobs into common classifications based on similarities in duties, responsibilities, and requirements.

The purpose of a Classification Plan is to provide an appropriate basis for making a variety of human resources decisions such as the:

- Development of job-related recruitment and selection procedures;
- Clear and objective appraisal of employee performance;
- Development of career paths, training plans, and succession planning;
- Design of an equitable and competitive compensation structure;
- Organizational development and change management; and
- Provision of an equitable basis for discipline and other employee actions.

In addition to providing the basis for various human resources management and process decisions, a Classification Plan can also effectively support systems of administrative and fiscal control. Grouping of positions into an orderly classification system supports planning, budget analysis and preparation, and various other administrative functions.

Within a Classification Plan, classifications can either be broad (containing a number of positions) or narrow (emphasizing individual job characteristics). Broad classifications are developed when:

- Employees can be hired with a broad spectrum of knowledge, skill, licenses and certifications, and/or academic preparation and can readily learn the details of the City and the position on-the-job; or
- There is a need for flexibility of the assignment within an organization due to changing programs, technologies, or workload.

Individualized classifications are developed when:

- There is an immediate need to recruit for specialty knowledge and skills;
- There is a minimum of time or capability for on-the-job training; or
- There is an organizational need to provide for specific job recognition and to highlight the differences between jobs.



The approach taken in developing the City's classification plan was to develop a combination of broader and more individualized classifications as this approach is the most practical taking into consideration the City's size, changing environment, and service delivery expectations.

Position vs. Classification

"Position" and "Classification" are two terms that are often used interchangeably, but have very different meanings. As used in this report:

- A position is an assigned group of duties and responsibilities performed by one person. A position can be full-time, part-time, regular, temporary, filled, or vacant. Often the word "job" is used in place of the word "position."
- A classification or class may contain only one position or may consist of a number of positions. When you have several positions assigned to one class, it means that the same classification title is appropriate for each position; that the scope, level, duties, and responsibilities of each position assigned to the class are sufficiently similar (but not identical), and that the same core knowledge, skills, and other requirements are appropriate for all positions in the class.

The description of a position often appears as a job description or working desk manual, going into detail regarding work process steps, while a classification description emphasizes the general scope and level of responsibilities, plus the knowledge, skills, and other requirements for successful performance.

When positions are classified, the focus is on assigned job duties and the job related requirements for successful performance, not on individual employee capabilities or amount of work performed. Positions are thus evaluated and classified on the basis of such factors as knowledge and skill required to perform the work, the complexity of the work, the authority delegated to make decisions and take action, the responsibility for the work of others and/or for budget expenditures, contacts with others (both inside and outside of the organization), and the impact of the position on the organization and working conditions.

Classification and Compensation

Classification and the description of the work and the requirements to perform the work are separate and distinct from determining the worth of that work in the labor market and to the organization. While recommending the appropriate compensation for the work of a class depends upon an understanding of what that work is and what it requires, compensation levels are often influenced by two factors:

- The external labor market; and
- Internal relationships within the organization.

Classification Description Format



The classification descriptions are based upon the information gathered from the written PDQs completed by each employee and from information provided by employees and management during the review processes. These descriptions provide:

- A written summary documenting the work performed by the incumbents of these classifications;
- Distinctions among the classes; and
- Documentation of requirements and qualifications to assist in recruitment, selection, and career development.

Just as there is a difference between a position and a classification, there is also a difference between a position description and a classification description. A position description, often known as a “desk manual”, generally lists each duty an employee performs and may also have information about how to perform that duty. A classification description normally reflects several positions and is a summary document that does not list each duty performed by every employee. The classification description, which is broader and more general and informational, is intended to indicate the general scope and level of responsibility and requirements of the classification, not detail-specific position responsibilities.

The sections of each classification description are as follows:

Title: This should be brief and descriptive of the classification and consistent with other titles in the classification plan and the occupational area.

- The title of a classification is normally used for organization, classification, and compensation purposes within the City. Often working titles are used to differentiate an individual. All positions have a similar level of scope and responsibility; however, the working titles may give assurance to a member of the public that they are dealing with an appropriate individual. Working titles should be authorized by Human Resources to ensure consistency within the City.

Definition: This provides a capsule description of the classification and should give an indication of the type of supervision received, the scope and level of the work, and any unusual or unique factors. The phrase “performs related work as required” is not meant to unfairly expand the scope of the work performed, but to acknowledge that classifications change and that not all duties are included in the classification description.

Supervision Received and Exercised: This section specifies which class or classes provide supervision to the classification being described and the type and level of work direction or supervision provided to this classification. The section also specifies what type and level of work direction or supervision the classification provides to other classes. This assists the reader in defining where the class “fits” in the organization.

Class Characteristics: This can be considered the “editorial” section of the description, slightly expanding the Definition, clarifying the most important aspects of the classification and distinguishing this classification from the next lower- and/or higher-levels in a class series or from a similar classification in a different occupational series.



Examples of Typical Job Functions: This section provides a list of the major and typical duties, intended to define the scope and level of the classification and to support the Qualifications, including Knowledge and Abilities. This list is meant to be illustrative only. It should be emphasized that the description is a summary document, and that duties change depending upon program requirements, technology, and organizational needs.

Qualifications: This element of the description has several sections:

- A listing of the job-related knowledge and abilities required to successfully perform the work. They must be related to the duties and responsibilities of the work and capable of being validated under the Equal Employment Opportunity Commission's Uniform Guidelines on Selection Procedures. Knowledge (intellectual comprehension) and Abilities (acquired proficiency) should be sufficiently detailed to provide the basis for selection of qualified employees.
- A listing of educational and experience requirements that outline minimum and alternative ways of gaining the knowledge and abilities required for entrance into the selection process. These elements are used as the basic screening technique for job applicants.
- Licenses and certifications identify those specifically required in order to perform the work. These certifications are often required by an agency higher than the City (i.e., the State) and can therefore be appropriately included as requirements.

Physical Demands: This section identifies the basic physical abilities required for performance of the work. These are not presented in great detail (although they are more specifically covered for documentation purposes in the PDQ's) but are designed to indicate the type of pre-employment physical examinations (i.e., lifting requirements and other unusual characteristics are included, such as "bend, stoop, kneel, reach, and climb to perform work and inspect work sites") and to provide an initial basis for determining reasonable accommodation for ADA purposes.

Environmental Elements: These can describe certain outside influences and circumstances under which a job is performed; they give employees or job applicants an idea of certain risks involved in the job and what type of protective gear may be necessary to perform the job. Examples are loud noise levels, cold and/or hot temperatures, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and other job conditions.

Fair Labor Standards Act (FLSA)

A major component of the job analysis and classification review is the determination of each classification's appropriate FLSA status, i.e., exempt vs. non-exempt from the FLSA overtime rules and regulations.

As a note, although it is more common for all positions within a classification to be under the same FLSA status, potentially there could be both exempt and non-exempt positions within a classification. Thus it is important that each position be analyzed to determine FLSA status.



Data on each position's typical job functions collected from the PDQs and interviews were analyzed to determine FLSA status. There are three (3) levels for the determination of the appropriate FLSA status that are utilized and on which recommendations are based. Below are the steps used for the determination of *Exempt* FLSA status:

1. *Salary Basis Test* – The incumbents in a classification are paid at least \$455 per week (\$23,660 per year), not subject to reduction due to variations in quantity/quality of work performed. Note: computer professionals' salary minimum is defined in hourly terms as \$27.63 per hour.
2. *Exemption Applicability* – The incumbents in a classification perform any of the following types of jobs:
 - Executive: Employee whose primary duty is to manage the business or a recognized department/entity and who customarily directs the work of two or more employees. This also includes individuals who hire, fire, or make recommendations that carry particular weight regarding employment status. Examples: executive, director, owner, manager, supervisor.
 - Administrative: Employee whose primary activities are performing office work or non-manual work on matters of significance relating to the management or business operations of the firm or its customers and which require the exercise of discretion and independent judgment. Examples: coordinator, administrator, analyst, accountant.
 - Professional: Employee who primarily performs work requiring advanced knowledge/education and which includes consistent exercise of discretion and independent judgment. The advanced knowledge must be in a field of science or learning acquired in a prolonged course of specialized intellectual instruction. Examples: engineer, attorney, statistician, architect, biologist.
 - Computer professional: Employee who primarily performs work as a computer systems analyst, programmer, software engineer, or similarly skilled work in the computer field performing a) application of systems analysis techniques and procedures, including consulting with users to determine hardware, software, or system functional specifications; b) design, development, documentation, analysis, creation, testing, or modification of computer systems or programs, including prototypes, based on and related to user or system design specification; or c) design, documentation, testing, creation, or modification of computer programs based on and related to user or system design specifications; or a combination of the duties described above, the performance of which requires the same level of skills. Examples: system analyst, database analyst, network architect, software engineer, programmer.
3. *Job Analysis* – A thorough job analysis of the job duties must be performed to determine exempt status. An exempt position must pass both the salary basis and duties tests. The job analysis should include:
 - Review of the minimum qualifications established for the job;
 - Review of prior class descriptions, questionnaires, and related documentation;
 - Confirmation of duty accuracy with management; and
 - Review and analysis of workflow, organizational relationships, policies, and other available organizational data.



Non-exempt positions work within detailed and well-defined sets of rules and regulations, policies, procedures, and practices that must be followed when making decisions. Although the knowledge base required to perform the work may be significant, the framework within which incumbents work is fairly restrictive and finite. (Please note that FLSA does not allow for the consideration of workload and scheduling when it comes to exemption status).

Finally, often times a position performs both non-exempt and exempt duties, so analysis on time spent on each type of duties should be performed. If a position performs mostly non-exempt duties (i.e. more than 50% of time), then the position would be considered non-exempt.

CLASSIFICATION STRUCTURE AND ALLOCATION FACTORS

The proposed classification plan provides the City with a systematic classification structure based on the interrelationship between duties performed, the nature and level of responsibilities, and other work-related requirements of the jobs.

A classification plan is not a stable, unchanging entity. Classification plans may be updated and revised by conducting classification studies that are organizational wide (review of the all classifications and positions) or position-specific. The methodology used for both types of studies is the same, as outlined above.

For either type of study, when identifying appropriate placement of new and/or realigned positions within the classification structure, there are general allocation factors to consider. By analyzing these factors, the City will be able to change and grow the organization while maintaining the classification plan.

1. Type and Level of Knowledge and Skill Required

This factor defines the level of job knowledge and skill, including those attained by formal education, technical training, on-the job experience, and required certification or professional registration. The varying levels are as follows:

A. The entry-level into any occupational field

This entry-level knowledge may be attained by obtaining a high school diploma, completing specific technical course work, or obtaining a four-year or advanced college or university degree. Little to no experience is required.

B. The experienced or journey-level (fully competent-level) in any occupational field

This knowledge and skill level recognizes a class that is expected to perform the day-to-day functions of the work independently, but with guidelines (written or oral) and supervisory assistance available. This level of knowledge is sufficient to provide on-the-job instruction to a fellow employee or an assistant when functioning in a lead capacity. Certifications may be required for demonstrating possession of the required knowledge and skills.



C. The advanced level in any occupational field

This knowledge and skill level is applied in situations where an employee is required to perform or deal with virtually any job situation that may be encountered. Guidelines may be limited and creative problem solving may be involved. Supervisory knowledge and skills are considered in a separate factor and should not influence any assessment of this factor.

2. Supervisory/Management Responsibility

This factor defines the staff and/or program management responsibility, including short and long-range planning, budget development and administration, resource allocation, policy and procedure development, and supervision and direction of staff.

A. No ongoing direction of staff

The employee is responsible for the performance of his or her own work and may provide side-by-side instruction to a co-worker.

B. Lead direction of staff or program coordination

The employee plans, assigns, directs, and reviews the work of staff performing similar work to that performed by the employee on a day-to-day basis. Training in work procedures is normally involved. If staff direction is not involved, the employee must have responsibility for independently coordinating one or more programs or projects on a regular basis.

C. Full first-line supervisor

The employee performs the supervisory duties listed above, and, in addition, makes effective recommendation and/or carries out selection, performance evaluation, and disciplinary procedures. If staff supervision is not involved, the employee must have programmatic responsibility, including development and implementing goals, objectives, policies and procedures, and budget development and administration.

D. Manager

The employee is considered management, often supervising through subordinate levels of supervision. In addition to the responsibilities outlined above, responsibilities include allocating staff and budget resources among competing demands and performing significant program and service delivery planning and evaluation. This level normally reports to the General Manager.

E. Executive Management

The employee has total administrative responsibility for the City and reports to the Board of Directors.

3. Supervision Received

A. Direct Supervision

Direct supervision is usually received by entry-level employees and trainees, i.e., employees who are new to the organization and/or position they are filling. Initially under close supervision, incumbents learn to apply concepts and work procedures and methods in assigned area of



responsibility to resolve problems of moderate scope and complexity. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise. As experience is gained, assignments become more varied and are performed with greater independence.

B. General Supervision

General supervision is usually received by the experienced and journey-level employees, i.e., employees who have been in a position for a period of time and have had the opportunity to be trained and learn most, if not all, duties and responsibilities of the assigned classification. Incumbents are cross-trained to perform the full range of technical work in all of the areas of assignment.

At the experienced-level, positions exercise some independent discretion and judgment in selecting and applying work procedures and methods. Assignments and objectives are set for the employee and established work methods are followed. Incumbents have some flexibility in the selection of steps and timing of work processes.

Journey-level positions receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of assigned projects, programs, and team(s). Assignments are given with general guidelines and incumbents are responsible for establishing objectives, timelines, and methods to deliver work products. Work is typically reviewed upon completion for soundness, appropriateness, and conformity to policy and requirements, and the methodology used in arriving at the end results are not reviewed in detail.

C. General Direction

General direction is usually received by senior level or management positions. Work assignments are typically given as broad, conceptual ideas and directives and incumbents are accountable for overall results and responsible for developing guidelines, action plans, and methods to produce deliverables on time and within budget.

D. Administrative and Policy Direction

Administrative direction is usually received by executive management classifications. The incumbent is accountable for accomplishing City-wide planning and operational goals and objectives within legal and general policy and regulatory guidelines. The incumbent is responsible for the efficient and economical performance of the organization's operations.

4. Problem Solving

This factor involves analyzing, evaluating, reasoning, and creative thinking requirements. In a work environment, not only the breadth and variety of problems are considered, but also guidelines, such as supervision, policies, procedures, laws, regulations, and standards available to the employee.

A. Structured problem solving



Employees learn to apply concepts and work procedures and methods in assigned area of responsibility and to resolve problems and issues that are specific, less complex, and/or repetitive. Exceptions or changes in procedures are explained in detail as they arise.

B. Independent, guided problem solving

Work situations require making independent decisions among a variety of alternatives; however, policies, procedures, standards, and regulations and/or management are available to guide the employee towards problem resolution.

C. Application of discriminating choices

Work situations require independent judgment and decision-making authority when identifying, evaluating, adapting, and applying appropriate concepts, guidelines, references, laws, regulations, policies, and procedures to resolve diverse and complex problems and issues.

D. Creative, evaluative, or critical thinking

The work involves a high-level of problem-solving requiring analysis of unique issues or increasingly complex problems without precedent and/or structure and formulating, presenting, and implementing strategies and recommendations for resolution.

5. Authority for Making Decisions and Taking Action

This factor describes the degree to which employees have the freedom to take action within their job. The variety and frequency of action and decisions, the availability of policies, procedures, laws, and supervisory or managerial guidance, and the consequence or impact of such decisions are considered within this factor.

A. Direct, limited work responsibility

The employee is responsible for the successful performance of his or her own work with little latitude for discretion or decision-making. Work is usually supervised while in progress and fits an established structure or pattern. Direct supervision is readily available.

B. Decision-making within guidelines

The employee is responsible for the successful performance of their own work, but able to prioritize and determine methods of work performance within general guidelines. Supervision is available, although the employee is expected to perform independently on a day-to-day basis. Emergency or unusual situations may occur, but are handled within procedures and rules. Impact of decisions is normally limited to the work unit, project, or program to which assigned.

C. Independent action with focus on work achieved

The employee receives assignments in terms of long-term objectives, rather than day-to-day or weekly timeframes. Broad policies and procedures are provided, but the employee has latitude for choosing techniques and deploying staff and material resources. Impact of decisions may have significant program or City-wide service delivery and/or budgetary impact.

D. Decisions made within general policy or elected official guidance



The employee is subject only to the policy guidance of elected officials and/or broad regulatory or legal constraints. The ultimate authority for achieving the goals and objectives of the City are with this employee.

6. Interaction with Others

This factor includes the nature and purpose of contacts with others, from simple exchanges of factual information to the negotiation of difficult issues. It also considers with whom the contacts are made, from co-workers and the public to elected or appointed public officials.

A. Exchange of factual information

The employee is expected to use ordinary business courtesy to exchange factual information with co-workers and the public. Strained situations may occasionally occur, but the responsibilities are normally not confrontational.

B. Interpretation and explanation of policies and procedures

The employee is required to interpret policies and procedures, apply and explain them, and influence the public or others to abide by them. Problems may need to be defined and clarified and individuals contacted may be upset or unreasonable. Contacts may also be made with individuals at all levels throughout the City.

C. Influencing individuals or groups

The employee is required to interpret laws, policies, and procedures to individuals who may be confrontational or to deal with members of professional, business, community, or other groups or regulatory agencies as a representative of the City.

D. Negotiation with organizations from a position of authority

The employee often deals with the Board of Directors, elected officials, government agencies, and other outside agencies, and the public to advance and represent the priorities and interests of the City, provide policy direction, and/or negotiate solutions to difficult problems.

7. Working Conditions/Physical Demands

This factor includes specific physical, situational, and other factors that influence the employee's working situation.

A. Normal office or similar setting

The work is performed in a normal office or similar setting during regular office hours (occasional overtime may be required, but compensated for). Responsibilities include meeting standard deadlines, using office and related equipment, lifting materials weighing up to 25 pounds, and communicating with others in a generally non-stressful manner.

B. Varied working conditions with some physical or emotional demands

The work is normally performed indoors, but may have some exposure to noise, heat, weather, or other uncomfortable conditions. Stand-by, call back, or regular overtime may be required. The employee may have to meet frequent deadlines, work extended hours, and maintain attention to



detail at a computer or other machinery, deal with difficult people, or regularly perform moderate physical activity.

C. Difficult working conditions and/or physical demands

The work has distinct and regular difficult demands. Shift work (24-7 or rotating) may be required; there may be exposure to hazardous materials or conditions; the employee may be subject to regular emergency callback and extended shifts; and/or the work may require extraordinary physical demands.

Based on the above factors, in the maintenance of the classification plan when an employee is assigned an additional duty or responsibility and requests a change in classification, it is reasonable to ask:

- What additional knowledge and skills are required to perform the duty?
- How does one gain this additional knowledge and skills – through extended training, through a short-term seminar, through on-the-job experience?
- Does this duty or responsibility require new or additional supervisory responsibilities?
- Is there a greater variety of or are there more complex problems that need to be solved as a result of the new duty?
- Does the employee have to make a greater variety of or more difficult decisions as a result of this new duty?
- Are the impacts of decisions greater because of this new duty (effects on staff, budget, City-wide activities, and/or relations with other agencies)?
- Are guidelines, policies, and/or procedures provided to the employee for the performance of this new duty?
- Is the employee interacting with internal and external stakeholders others more frequently or for a different purpose as a result of this new assignment?
- Have the working or physical conditions of the job changed as a result of this new assignment?

The analysis of the factors outlined above, as well as the answers to these questions, were used to determine recommended classifications for all City employees. The factors above will also help to guide the placement of specific positions to the existing classification structure and/or revision of entire classification structure in the future.

CONCLUSION

The revised classification descriptions serve as a general description of the work performed and provide a framework of the expectations of each position for the employee. Requests for the addition of new positions and classifications and/or reclassification of an existing position should follow established City policies and procedures. Any decisions related to the addition of new positions and classifications, reclassification of an existing position, and promotion of an existing position will depend on the needs and resources of the City and the availability of work, as well as the ability of existing positions to meet the qualifications of and perform the duties of the higher-level class.

Finally, as mentioned previously, a classification plan is not a static, unchanging entity. The classification plan should be reviewed on a regular, on-going basis and may be amended or revised as required.

SPECIAL MEETING MINUTES - DRAFT



Date: 6/1/2016
Time: 5:30 p.m.
City Council Chambers
701 Laurel St., Menlo Park, CA 94025

A. Mayor Pro Tem Keith called the meeting to order at 5:43 p.m.

B. Roll Call

Present: Carlton, Cline (arrived at 6:04 p.m.), Keith, Mueller, Ohtaki
Absent: None
Staff: City Manager Alex McIntyre, City Attorney Bill McClure, Deputy City Clerk Jelena Harada

C. Pledge of Allegiance

Mayor Pro Tem Keith led the pledge of allegiance.

D. Public Comment

There were no public comments.

E. Regular Business

Mayor Pro Tem Keith called the item E2 out of order.

E2. Approve the San Francisquito Creek Joint Powers Authority (SFCJPA) funding agreement amendment and appropriate funds ([Staff Report# 16-086-CC](#))([Presentation](#))

Assistant City Manager Chip Taylor introduced the item.

ACTION: Motion and second (Ohtaki/Carlton) to approve the San Francisquito Creek Joint Power Authority funding agreement amendment and appropriate funds, passes 4-0-1 (Mayor Cline absent).

E1. Approve the estimated \$5.9 million budget and appropriate project funding for the Santa Cruz Avenue Sidewalk Project ([Staff Report# 16-089-CC](#))([Presentation](#))

Public Works Director Justin Murphy and Administrative Services Director Nick Pegueros made a presentation. Mayor Cline arrived at 6:04 p.m., during the introduction.

Public comment was taken at this point.

- Michael Duran encouraged the City Council to proceed with the project
- Betsy Nash was concerned about the quality of the bike lane surface on Santa Cruz and crosswalk lighting on Olive Street

ACTION: Motion and second (Mueller/Carlton) to approve the estimated \$5.9 million budget and

appropriated project funding for the Santa Cruz Avenue Sidewalk Project.

ACTION: Motion and second (Ohtaki/Carlton) to amend the motion to choose the Funding Option A as a funding solution, passes unanimously.

F. Informational Items

Staff was available to answer questions.

- F1. Quarterly Financial Review of General Fund Operations as of March 31, 2016
([Staff Report# 16-090-CC](#))
- F2. Review of the City's Investment Portfolio as of March 31, 2016 ([Staff Report# 16-080-CC](#))
- F3. Quarterly report on City Council Work Plan ([Staff Report# 16-091-CC](#))

G. City Manager's Report

City Manager Alex McIntyre reported on the traffic closures related to the Town of Atherton Marsh Road Retaining Wall Repair Project. Transportation Manager Nicole Nagaya gave an update on the communication between the Town of Atherton and the California Department of Transportation about the signs being installed along Highway 101. She reported that additional signs are installed in the Menlo Park Suburban Park and Lorelei Manor neighborhoods.

H. Councilmember Reports

Mayor Cline reported that Mayor Fahy from Galway, Ireland, is visiting Menlo Park. Mayor Cline recognized the effort of community members, the Sister City Committee and staff who organized the visit.

I. Adjournment

Mayor Cline adjourned the meeting at 7:12 p.m.

Jelena Harada
Deputy City Clerk



SPECIAL AND REGULAR MEETING MINUTES - DRAFT

Date: 6/21/2016
Time: 6:30 p.m.
City Council Chambers
701 Laurel St., Menlo Park, CA 94025

6:30 p.m. Closed Session (City Hall Administration Building, 1st floor conference room)

Mayor Cline called the Closed Session to order at 6:40 p.m. There was no public comment.

- CL1.** Closed Session pursuant to Government Code Section §54957.6 to confer with labor negotiators regarding current labor negotiations with the Menlo Park Police Sergeants' Association (PSA)

Attendees: City Manager Alex McIntyre, Administrative Services Director Nick Pegueros, Finance and Budget Manager Rosendo Rodriguez, Human Resources Manager Lenka Diaz, City Attorney Bill McClure, Labor Counsel Charles Sakai

7:00 p.m. Regular Session

- A.** Mayor Cline called the meeting to order at 7:25 p.m.

- B. Roll Call**

Present: Carlton, Keith, Mueller, Ohtaki, Cline
Absent: None
Staff: City Manager Alex McIntyre, City Attorney Bill McClure, City Clerk Pamela Aguilar

- C. Pledge of Allegiance**

Mayor Cline led the pledge of allegiance.

- D. Report from Closed Session**

Mayor Cline stated that there is no reportable action from the Closed Session held earlier.

ANNOUNCEMENT

Mayor Cline announced that an item has come to the City's attention and the City Council is being requested to add the item to the meeting agenda as an urgency item. City Attorney Bill McClure gave a brief overview of Assembly Bill 2788 (Gatto) and its potential impact.

ACTION: Motion and second to add item H4 to the agenda as an urgency item passes unanimously.

H4. Authorize the Mayor to sign a letter in opposition to AB2788 (Gatto) - Wireless Telecommunications Small Cells

- E. Public Comment**

- James Ruigomez, San Mateo Building Trade Council spoke in support of the Facebook expansion project
- Bill Nack spoke in support of the Facebook expansion project
- Chris Collins, Plumbers and Pipefitters Local 467, San Mateo County, spoke in support of the Facebook expansion project
- Ernesto Reyes spoke regarding improvements in the Belle Haven neighborhood, public transportation, and secondary dwelling units

F. Consent Calendar

- F1. Adopt **Resolution 6328** implementing a new water conservation plan ([Staff Report# 16-118-CC](#))
- F2. Adopt **Resolution 6329** authorizing the City Manager to sign an agreement with MidPen Housing for replacement of the existing water main at 1221-1275 Willow Road ([Staff Report# 16-115-CC](#))
- F3. Adopt **Resolution 6320** a) calling and giving notice of holding a general municipal election for two seats on the Menlo Park City Council b) requesting that the City Council consolidate the election with the Presidential Election to be held on November 8, 2016 and c) contracting with the San Mateo County Chief Elections Officer for election services ([Staff Report# 16-109-CC](#))
- F4. Authorize the City Manager to execute a professional services agreement with R3 Consulting Group for a Zero Waste Plan in the amount of \$50,000 and a Solid Waste Services Rate Study in the amount of \$175,000 for a total of \$225,000 ([Staff Report# 16-110-CC](#))
- F5. Authorize the City Manager to enter into an agreement with Bay Area Water Supply and Conservation Agency (BAWSCA) not to exceed \$80,000 to provide direct rebates to residents and businesses for the Lawn Be Gone program ([Staff Report# 16-111-CC](#))
- F6. Authorize the City Manager to execute an agreement for Kronos Workforce Ready Software as a Service in an amount not to exceed \$160,000 over three fiscal years ([Staff Report# 16-120-CC](#))
- F7. Accept dedication of a tree preservation access easement from Robert W. Armstrong Revocable Trust at 1010-1026 Alma Street and authorize the City Manager to sign agreements required by conditions of approval of the project ([Staff Report# 16-117-CC](#))
- F8. Authorize the City Manager to accept a grant for fiscal year 2016-17 of up to \$270,000 from Silicon Valley Community Foundation to implement The Big Lift at the Belle Haven Child Development Center, to execute a contract to enhance services to complete the scope of work and allocate matching funds of \$13,500 from the General Fund ([Staff Report# 16-108-CC](#))
- F9. Authorize the Mayor to sign a letter of opposition to Governor Jerry Brown's proposal for by right approval for affordable housing ([Staff Report# 16-122-CC](#))
- F10. Approve minutes for the City Council meetings of May 3 and June 7, 2016 ([Attachment](#))

ACTION: Motion and second (Keith/Ohtaki) to approve all items on the Consent Calendar, excluding F10 passes unanimously.

Councilmember Ohtaki requested the May 3rd City Council meeting minutes be edited to reflect that

he abstained on approving the March 31st City Council meeting minutes because he was not present.

ACTION: Motion and second (Ohtaki/Keith) to approve item F10 as amended by Councilmember Ohtaki passes unanimously.

G. Public Hearing

- G1. Adopt a resolution overruling protests, ordering the improvements, confirming the diagram and ordering the levy and collection of assessments and increasing the tree assessment by 5% and no increase to the sidewalk assessment for the City of Menlo Park Landscaping Assessment District for Fiscal Year 2016-17 ([Staff Report# 16-112-CC](#))

Assistant Public Works Director Ruben Nino made a brief presentation. Mayor Cline opened the public hearing. There was no public comment.

ACTION: Motion and second (Keith/Ohtaki) and by acclamation, Mayor Cline closed the public hearing.

ACTION: Motion and second (Keith/Ohtaki) to approve **Resolution 6321** overruling protests, ordering the improvements, confirming the diagram and ordering the levy and collection of assessments and increasing the tree assessment by 5% and no increase to the sidewalk assessment for the City of Menlo Park Landscaping Assessment District for Fiscal Year 2016-17

- G2. Adopt a resolution to collect the regulatory fee at the existing rates to implement the City's Storm Water Management Program for Fiscal Year 2016-17 ([Staff Report# 16-113-CC](#))

Assistant Public Works Director Ruben Nino made a brief presentation. Mayor Cline opened the public hearing. There was no public comment.

ACTION: Motion and second (Keith/Ohtaki) and by acclamation, Mayor Cline closed the public hearing.

ACTION: Motion and second (Keith/Ohtaki) to adopt **Resolution 6322** to collect the regulatory fee at the existing rates to implement the City's Storm Water Management Program for Fiscal Year 2016-17 passes unanimously.

- G3. Adopt a resolution recommending that the San Mateo County Flood Control District (District) impose basic charges at existing rates and increase the additional charges by 3.02 percent for funding the fiscal year (FY) 2016-17 Countywide National Pollutant Discharge Elimination System (NPDES) General Program and allow the District to collect these fees annually ([Staff Report# 16-114-CC](#))

Assistant Public Works Director Ruben Nino made a brief presentation. Mayor Cline opened the public hearing. There was no public comment.

ACTION: Motion and second (Keith/Ohtaki) and by acclamation, Mayor Cline closed the public hearing.

ACTION: Motion and second (Keith/Ohtaki) to adopt **Resolution 6323** recommending that the San Mateo County Flood Control District (District) impose basic charges at existing rates and increase the additional charges by 3.02 percent for funding the fiscal year (FY) 2016-17 Countywide National

Pollutant Discharge Elimination System (NPDES) General Program and allow the District to collect these fees annually

H. Regular Business

- H1. Consider approval of amendments to the agreement between the City of Menlo Park and Service Employees International Union, Local 521 ([Staff Report# 16-104-CC](#))([Presentation](#))

Human Resources Manager Lenka Diaz made a presentation for Items H1 and H2.

ACTION: Motion and second (Keith/Ohtaki) to approve amendments to the agreement between the City of Menlo Park and Service Employees International Union, Local 521 passes unanimously.

- H2. Consider approval of amendments to the agreement between the City of Menlo Park and American Federation of State, County and Municipal Employees, Local 829 ([Staff Report# 16-105-CC](#))

ACTION: Motion and second (Ohtaki/Carlton) to approve amendments to the agreement between the City of Menlo Park and American Federation of State, County and Municipal Employees, Local 829 passes unanimously.

- H3. Approve resolutions: adopting the fiscal year 2016-17 Budget and Capital Improvement Program and appropriating funds; establishing the appropriations limit for fiscal year 2016-17; establishing a Consecutive Temporary Tax percentage reduction in Utility Users' Tax rates through September 30, 2017; and establishing City-wide Salary Schedule effective July 10, 2016 ([Staff Report# 16-119-CC](#))([Presentation](#))

Administrative Services Director Nick Pegueros made a presentation.

Public Comment:

- Cecilia Taylor inquired about using Below Market Rate funds to purchase properties to use as affordable housing

ACTION: Motion and second (Ohtaki/Carlton) to approve the following resolutions passes unanimously.

Resolution 6324 adopting the fiscal year 2016-17 Budget and Capital Improvement Program

Resolution 6325 establishing the appropriations limit for fiscal year 2016-17

Resolution 6326 establishing a consecutive temporary tax percentage reduction in Utility Users' Tax rates through September 30, 2016

Resolution 6327 establishing City-wide salary schedule effective July 10, 2016

- H4. Authorize the Mayor to sign a letter in opposition to AB2788 regarding wireless telecommunications small cells

City Attorney Bill McClure introduced the item.

ACTION: Motion and second (Ohtaki/Keith) to authorize the Mayor to sign a letter in opposition to AB2788 regarding wireless telecommunications small cells passes unanimously.

I. Informational Items

I1. Update on the El Camino Real Corridor Study ([Staff Report# 16-116-CC](#))

Transportation Manager Nikki Nagaya responded to Council questions regarding additional tasks discussed during the May 3rd City Council meeting meeting and regarding the Oak Grove bike boulevard.

I2. Update on the status, schedule, required actions, and Development Agreement negotiation process for the Facebook Campus Expansion Project located at 301-309 Constitution Drive ([Staff Report# 16-107-CC](#))

Mayor Cline mentioned correspondence received from Menlo Park resident Pamela Jones requesting the schedule for this project be extended.

I3. Belle Haven Child Development Center Self Evaluation Report for the Child Development Division of the California Department of Education for fiscal year 2015-16 ([Staff Report# 16-106-CC](#))

I4. Process for pursuing structured parking and other land use enhancements downtown ([Staff Report# 16-121-CC](#))

J. City Manager's Report

City Manager McIntyre announced the 4th of July parade and that first phase of the City Hall remodel will begin on July 7th.

K. Councilmember Reports

Councilmember Mueller mentioned resident concerns regarding traffic at Middlefield and Willow and cut through traffic in the neighborhood. He also inquired about water aerobics for seniors at the Belle Haven pool and reported that architectural design drawings for the Burgess snack bar are complete.

Councilmember Carlton thanked the Chamber of Commerce for the block party and reported that trash cans in downtown need to be cleaned.

Mayor Pro Tem Keith reported the challenges of getting out of the Willows neighborhood due to the Willow Road traffic.

Councilmember Ohtaki reported that the SFO Roundtable Select Committee is meeting to make recommendations to the FAA regarding the noise and requested an item be placed on the next agenda.

Mayor Cline reported that the Facebook Development Agreement Subcommittee met earlier and commended staff on the Electric Vehicle (EV) charger event. He also reported there will be a Tri-Cities meeting on June 9th with Palo Alto and East Palo Alto.

L. Adjournment

Mayor Cline adjourned the meeting at 8:48 p.m.

Pamela Aguilar, CMC
City Clerk



SPECIAL MEETING MINUTES - DRAFT

Date: 7/12/2016
Time: 9:00 p.m.
City Council Chambers
701 Laurel St., Menlo Park, CA 94025

9:00 p.m. Special Session

A. Mayor Pro Tem Keith called the meeting to order at 9:02 p.m.

B. Roll Call

Present: Keith, Mueller, Ohtaki
Absent: Carlton, Cline
Staff: Assistant City Manager Chip Taylor, City Attorney Bill McClure, City Clerk Pamela Aguilar

C. Pledge of Allegiance

Mayor Pro Tem Keith led the pledge of allegiance.

D. Public Comment – see Item E1

E. Regular Business

E1. Consider request to extend the 45-day review and public comment period for the Draft Environmental Impact Report for ConnectMenlo – Menlo Park General Plan Update

Assistant City Manager Chip Taylor introduced the item. Principal Planner Deanna Chow gave a brief overview of recent developments.

Public Comment

- Ellen Hope, League of Women Voters, spoke in support of extending the comment period and expressed concerns regarding jobs/housing balance, traffic and transportation and sea level rise ([Handout](#))
- Steve Van Pelt spoke in support of extending the comment period and regarding traffic
- Pamela Jones spoke in support of extending the comment period and regarding the impact of additional housing on the Belle Haven neighborhood
- Ernesto Reyes spoke regarding displacement, secondary dwellings and code enforcement in the Belle Haven neighborhood
- Gita Dev, Sierra Club, spoke regarding solutions to the traffic, connectivity and other impacts

ACTION: Motion and second (Mueller/Ohtaki) to extend the 45-day review and public comment period for the Draft Environmental Impact Report for ConnectMenlo – Menlo Park General Plan Update passes 3-0 (Mayor Cline and Councilmember Carlton absent)

Councilmember Mueller requested that an updated schedule be presented to City Council at its next meeting.

F. Adjournment

Mayor Pro Tem Keith adjourned the meeting at 9:46 p.m.

Pamela Aguilar, CMC
City Clerk



STAFF REPORT

City Council

Meeting Date: 7/19/2016
Staff Report Number: 16-133-CC

Regular Business: Provide direction on Facebook Campus Expansion Project and ConnectMenlo (General Plan and M-2 Area Zoning update) schedules

Recommendation

Staff recommends that the City Council review and approve the revised Facebook and ConnectMenlo schedules, included as Attachments A and B.

Policy Issues

The General Plan and M-2 Zoning update process will consider a number of policy issues. There are no policy issues associated with this staff report.

Background

The General Plan serves as the City's comprehensive and long range guide to land use and infrastructure development in the City, and is required by State law. Since Summer 2014, the City has embarked on the General Plan update process known as ConnectMenlo. The City Council previously identified the completion of the General Plan and M-2 Zoning Update in two years as a City Council goal. In February 2016, staff returned to the City Council for review and guidance on a revised schedule. At that time, the General Plan Advisory Committee (GPAC) had requested three additional topic sessions or "deep dives" and a follow-up GPAC meeting. The Council supported the additional meetings and subsequently, extended the targeted completion from Summer 2016 to October 2016 to conduct the extra meetings.

Since February 2016, the ConnectMenlo team has continued its robust outreach efforts to help inform the public of the proposed project and to also receive feedback. In March 2016, the team hosted three topic discussions on the subjects of 1) zoning regulations and design standards, 2) green and sustainable development regulations, and 3) community amenities. These meetings were followed by guidance from the GPAC on the proposed M-2 Area zoning ordinances in April 2016 and a study session by the Planning Commission in May 2016. In early June, the Draft Environmental Impact Report (EIR) was released for a 45-day comment review period. On July 11, the ConnectMenlo team hosted a town hall meeting to provide an overview of the EIR process and findings. This was also an opportunity for the public to ask questions prior to the Planning Commission meeting that followed the town hall discussion. The purpose of the Planning Commission hearing was to receive public comments on the adequacy of the EIR. The verbal comments received at the July 11 Planning Commission meeting, along with all written correspondence on the EIR, will be responded to in writing as part of the Final EIR.

In response to concerns about the length of the EIR and the timing of the EIR with another large project in the City that was expressed in correspondence and at the July 11 meeting, the Planning Commission voiced general support for an extension of the EIR comment review period. The Commission believed a 15-day extension beyond the 45-day comment review period was appropriate. On July 12, the Housing

Commission conducted a special meeting and also supported an extension of the EIR comment review period. On that same day, the City Council also conducted a special meeting to consider whether to extend the 45-day comment review period for the EIR because the schedule could not be extended without approval from the Council. The Council approved a 15 day extension on the EIR comment review period, ending on Monday, August 1, 2016 at 5:30 p.m. The extension of the comment review period has implications on the overall schedule, and the Council asked that a revised schedule be brought to the July 19 meeting for review and consideration.

Analysis

The ConnectMenlo process thus far, has included approximately 60 meetings, events and activities to help educate and inform, share ideas, and gather input on the potential changes in the current M-2 Area of the City and citywide circulation. Members of the community, property owners and other interested parties from varying organizations have been involved, and broad community outreach continues to be a key aspect of the process. The General Plan Advisory Committee (GPAC), comprised of Council, Commission and community representatives has also played an important role in helping guide the process.

As mentioned earlier in the report, the EIR is currently being circulated for public review and comment. Following the close of the comment review period on August 1, the EIR consultant will prepare responses to the comments and a Final EIR will be released at least 10 days prior to the Planning Commission public hearing on the proposed General Plan and M-2 Area Zoning Update and EIR. After further review of the upcoming Planning Commission and City Council calendar, other development projects in the pipeline, and staff and consultant resources, staff has determined that a revised timeline would result in more than a 15 day delay equivalent to the 15-day extension for the EIR comment review period. A proposed revised schedule is included in Attachment B and is further discussed below.

Facebook Campus Expansion Project Schedule

The Council has been cognizant that the process schedule for ConnectMenlo has been on a separate, but close timing with the Facebook Campus Expansion project, with the review of ConnectMenlo following the Facebook Campus Expansion project. With the recent close of the EIR comment review period for the Facebook Campus Expansion project, staff is reevaluating the schedule given the number and complexity of the comments, and the additional time needed to adequately respond to the comments. Staff believes that, at a minimum, an additional 30 to 60 days will be needed to prepare the Final EIR for the Facebook Campus Expansion project. As of now, staff anticipates that the Planning Commission will review and make a recommendation on the Facebook Campus Expansion project on September 26, 2016. The City Council would then review and take action on the proposed project at its October 18, 2016 meeting, with the second reading of the Zoning Ordinance amendment on November 1, 2016. Staff believes this is an optimistic timeline, and will keep the Council updated should circumstances arise that could alter the schedule. A revised schedule is included as Attachment A.

ConnectMenlo Schedule

The additional time needed to prepare Facebook's Final EIR would impact the available staffing and consultant resources necessary to focus on ConnectMenlo, which would result in a delay beyond the 15 day extension of the EIR comment review period. In addition, given the existing and anticipated number and complexity of comments on the EIR (based upon the comments recently received for the Facebook Campus Expansion project EIR), staff believes that more time than originally anticipated will be needed to adequately prepare responses to the comments. While the recent focus has been on the EIR, the ConnectMenlo team will also need to address other components of the project before bringing it to the Planning Commission for review. One of those items is the Fiscal Impact Analysis (FIA). Staff anticipates bringing the FIA to the Planning Commission for discussion in August, which had previously been targeted

for late July. In the schedule, staff is also trying to accommodate another Town Hall meeting at the request of the Council to provide an overview of the project and key issues that have been raised during the process. Staff anticipates that the meeting can be accommodated in the late summer/early Fall period without further delay to the overall Schedule.

At this time, the Planning Commission is scheduled to meet once during the month of October. The Commission approved the calendar with the limited meeting dates in an effort to avoid conflicts with identified cultural and other holidays for the remaining four Mondays in the month. With an interest expressed by several Council Members to complete the General Plan Update by the end of the year, staff has identified that a special meeting will need to be conducted by the Planning Commission if two meetings are needed for the Planning Commission's review and recommendation on the General Plan and M-2 Area Zoning Update. The special meeting is anticipated to occur on a day other than Monday, but the Commission will need to be polled on their availability before a date can be confirmed. As proposed in Attachment A, the Planning Commission would review the General Plan and M-2 Area Zoning Update on October 24, with a potential second meeting on October 25 or 26 (or October 19 or 20 if the previous two dates do not work). The City Council would then review and take action on the proposed project at its meeting on November 15, 2016, with the second reading of the Zoning Ordinance amendments on December 13. The meeting of December 6 is typically ceremonial with the appointment of the new Mayor and Mayor Pro Tem, and therefore, did not schedule ConnectMenlo on that meeting date. If a second meeting date is desired now by the City Council to review the General Plan and M-2 Area Zoning Update, the Council should review its calendar to determine a second meeting date, which would likely be a special meeting. Given the holiday season in the November/December timeframe, scheduling a special meeting may pose a challenge. The Council may wish to consider whether it would then be more appropriate to postpone its hearings on the item until the new year when two meetings could be scheduled in close proximity to each other.

Both the Facebook and ConnectMenlo project schedules are estimates based on the information that we have available now. Once teams have had an opportunity to fully assess the EIR comments and the resources needed to address the comments, additional time to the schedule may be warranted. Staff will keep the Council apprised of issues that could affect the overall schedule.

Impact on City Resources

The General Plan Update scope of services and budget was approved by the City Council on June 17, 2014. A modification in the schedule is not anticipated to impact the overall budget for the project.

A fiscal impact analysis is being prepared for each of the projects and will be part of the Planning Commission's and City Council's consideration of each project.

Environmental Review

The General Plan and M-2 Zoning Update is subject to the California Environmental Quality Act (CEQA) and an EIR has been prepared. The EIR comment review period is currently underway and ends on August 1, 2016.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Revised Draft Facebook Campus Expansion Schedule
- B. Revised Draft General Plan and M-2 Area Zoning Update Schedule

Report prepared by:
Deanna Chow, Principal Planner

**Facebook Campus Expansion Project
Upcoming Schedule**

Event	Date	Time	Location
Final EIR Release	September 15, 2016		
Final EIR Review Period (10 days)	Ends September 26, 2016		
Planning Commission Public Hearing on Final EIR/FIA and Proposed Project	September 26, 2016	7 p.m.	Council Chambers
City Council Public Hearing on Final EIR/FIA and Proposed Project	October 18, 2016	7 p.m.	Council Chambers
City Council Second Reading of Zoning Ordinance Amendment and Rezoning	November 1, 2016	7 p.m.	Council Chambers

Note: For more information about the Facebook Campus Expansion Project process, please visit the project webpage at <http://menopark.org/995/Facebook-Campus-Expansion-Project>. Actual meeting dates, times, and locations are subject to change.

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ConnectMenlo Upcoming Activities and Events

Event	Date	Time	Location
EIR Review Period (60 days)	Ends August 1, 2016		
Town Hall	August/September 2016		
Planning Commission Meeting on Draft FIA	August 2016	7:00 p.m.	Council Chambers
Final EIR Release	October 10, 2016		
Final EIR Review Period (10 days)	Ends October 19, 2016		
Planning Commission Public Hearing on Final EIR/FIA and Draft Land Use and Circulation Elements and Zoning Ordinance Amendments	October 24, 2016	7 p.m.	Council Chambers
Planning Commission Public Hearing on Final EIR/FIA and Draft Land Use and Circulation Elements and Zoning Ordinance Amendments (Meeting #2 if needed)	October 25, 2016	7 p.m.	Council Chambers
City Council Public Hearing on Final EIR/FIA and Draft Land Use and Circulation Elements and Zoning Ordinance Amendments	November 15, 2016	7 p.m.	Council Chambers
City Council Second Reading of Zoning Ordinance Updates and Rezoning	December 13, 2016	7 p.m.	Council Chambers

Note: For more information about the ConnectMenlo process, please visit the project webpage at www.menlopark.org/connectmenlo. Actual meeting dates, times, and locations are subject to change.

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STAFF REPORT

City Council

Meeting Date: 7/19/2016
Staff Report Number: 16-127-CC

Regular Business: Consider the Term Sheet for the Development Agreement for the Facebook Campus Expansion Project Located at 301-309 Constitution Drive and authorize City Manager to modify Project Schedule and execute contracts with EIR consultants

Recommendation

Staff recommends that the City Council approve the proposed Term Sheet for the Facebook Campus Expansion Project Development Agreement (Attachment A), authorize the City Manager to modify the project review schedule as necessary to complete the Final EIR, authorize the City Manager to modify and execute an amendment to the contract(s) with the EIR consultants as necessary to complete the Final EIR, and proceed with the project review process.

Policy Issues

The proposed project will require the City Council to consider the requested land use entitlements, such as the appropriateness of the proposed Zoning Ordinance text amendment, rezoning, conditional development permit (CDP), heritage tree removals, and below market rate (BMR) agreement, along with the public benefits associated with the Development Agreement. Simultaneously with the review of the project entitlements, the Council will need to consider the potentially significant and unavoidable impacts detailed in the Environmental Impact Report (EIR) and the accompanying statement of overriding considerations. After release of the Final EIR, the Planning Commission will provide a recommendation on the project entitlements and the Final EIR for the Council's consideration. At this time, staff is requesting the Council's input and approval of the Term Sheet for the Development Agreement associated with the proposed project. As a reminder, review of complex development projects is designated as Item #2 of the Council Work Plan for 2016.

Background

On March 31, 2015, Hibiscus Properties LLC, on behalf of Facebook, Inc. submitted an application for the proposed redevelopment of the former TE Connectivity Campus (TE). The approximately 58-acre campus is located at 301-309 Constitution Drive, along Bayfront Expressway, between Chilco Street and the recently completed Building 20 (formerly identified as the Facebook West Campus). Building 20 is currently a separate parcel, but would be merged with the project site. Building 23 is located on the project site, but previously received its entitlements for the conversion of a warehouse building to office uses in December 2014. For purposes of this staff report, Building 23 is included in the site development discussion, while Building 20 is excluded.

On July 11, 2016, the comment period for the Draft EIR closed. The City received a significant number of correspondence on the project, including numerous technical and legal comments. Due to this and the detailed content of the submitted comments, the timeline for preparation of the response to comments and Final EIR will need to be extended. Staff is currently reevaluating the project schedule to accommodate the additional time that will be needed to respond to comments and complete the Final EIR. The current schedule was reviewed by the City Council most recently on May 3, 2016. The schedule will likely be extended with the understanding that the schedule extension will be for the shortest time possible to complete the Final EIR, with the new schedule subject to approval of the City Manager and notification to the Council and public.

Project Description

The proposed Facebook Campus Expansion Project includes the demolition of the existing buildings at 301-306 Constitution Drive and the construction of two new office buildings (Buildings 21 and 22), encompassing approximately 962,400 square feet of gross floor area. The two office buildings would increase the gross floor area of office uses at the site by 126,600 square feet. The project also includes a potential 200-room limited service hotel of approximately 174,800 square feet. With the hotel, the net increase in gross floor area for all uses at the site would be approximately 121,300 square feet for a total of 1,317,300 square feet, inclusive of Building 23.

The proposed office buildings would be oriented east-to-west, similar to Building 20. Building 21 would be constructed in the first phase and would be connected to Building 20 through usable gross floor area. Building 22 and the hotel would be a second phase. Buildings 22 and 21 would be connected through an open air bridge. The hotel is anticipated to be located near the corner of Chilco Street and Bayfront Expressway. The project would include publicly accessible open space and a new pedestrian/bicycle bridge over Bayfront Expressway, providing a more direct connection from the campus and the Belle Haven neighborhood to the Bay Trail. The publicly accessible area would be located between Buildings 21 and 22, adjacent to the bend in Chilco Street near the Dumbarton Rail Corridor. The most recent version of the project plans is available on the City-maintained project page (<http://menlopark.org/1001/Project-Plans>). Previous staff reports provide more detail on the proposed development program (<http://menlopark.org/1002/Presentations-and-Staff-Reports>).

The entitlement process for the Facebook Campus Expansion Project includes the following review and permit approvals:

- **Zoning Ordinance Text Amendment** to include hotels as conditional uses within the M-2 zoning district. The text amendment would be consistent with the Limited Industry Land Use Designation of the existing General Plan;
- **Rezone** entire site from M-2 (General Industrial) and M-2(X) (General Industrial, Conditional Development) to M-2(X) (General Industrial, Conditional Development) to allow for a Conditional Development Permit to permit the proposal to diverge from standard M-2 zoning district requirements;
- **Conditional Development Permit (CDP)** to redevelop the approximately 58 acre site with approximately 962,400 square feet of offices and a 200 room hotel of approximately 174,800 square feet. Including the existing Building 23 (approximately 180,108 square feet), the maximum gross floor area for offices would be approximately 1.143 million square feet, which is within maximum 45 percent floor area ratio (FAR) for offices. With the hotel, the maximum gross floor area would be approximately 1.318 million square feet, or 52 percent FAR, which is consistent with the FAR maximum of up to 55 percent for all other uses. The CDP would permit maximum building heights of up to 75 feet and allow building coverage to potentially exceed 50 percent of the site, as well as to define all other development

standards, such as parking at the site. The CDP would also include the existing Building 20 (1 Facebook Way);

- **Development Agreement** for the provision of overall benefits to the City and adequate development controls in exchange for vested rights for the Facebook Campus Expansion Project;
- **Heritage Tree Removal Permits** to permit the removal of approximately 274 heritage trees associated with the proposed project;
- **Below Market Rate (BMR) Housing Agreement**, per the requirements of the City's Municipal Code, which would help increase the affordable housing supply by requiring the applicant to provide monies for the BMR fund or by procuring off-site BMR units;
- **Lot Reconfiguration** to modify the location of two legal lots or merge the legal lots that comprise the project site and the adjacent lot for Building 20; and
- **Environmental Impact Report** to analyze the potential environmental impacts of the proposed project.

Analysis

A Development Agreement is a contract between the City of Menlo Park and a project sponsor that delineates the terms and conditions of a proposed development project. A Development Agreement allows a project sponsor, in this case Facebook, to secure vested rights, and it allows the City to secure certain benefits that it might not otherwise be entitled to obtain. The City Council is not obligated to approve a Development Agreement, but if the City Council does want to approve a Development Agreement, the terms of the Development Agreement need to be acceptable to both parties; one party cannot impose terms on the other party.

In December 2015, the City Council created the Council Subcommittee for the Facebook Campus Expansion Project Development Agreement negotiation. The subcommittee includes Mayor Richard Cline and Mayor Pro Tem Kirsten Keith. After release of the Draft EIR, City staff, including the City Manager and City Attorney, met with the Council Subcommittee to determine the parameters for the negotiation of public benefits as part of the Development Agreement. Subsequently, over the last few weeks, staff has been negotiating with the Project Sponsor and consulting with the Council Subcommittee. The attached letter from Facebook and Term Sheet (Attachment A) is the outcome of the public benefit negotiation process.

Development Agreement Term Sheet

The Term Sheet reflects the mutually agreed upon terms between Facebook and the City's negotiating team. The term sheet outlines public benefits for the community and is in addition to the required mitigation measures, which were determined by the Draft EIR and would be included in the mitigation monitoring and reporting program for the development proposal. The Council Subcommittee has reviewed and generally supports the proposed Term Sheet.

The Term Sheet covers five main topics, each with multiple items that will be fleshed out with more details as part of the formal Development Agreement. Some of the topics are potential conditions of approval that would appear in the Conditional Development Permit, along with an acknowledgement that projects that the Project Sponsor has been funding (e.g. the Dumbarton Corridor Study) are of benefit to Menlo Park. When considering the terms of the Development Agreement, it is important to remember that it reflects a negotiated package and any one aspect cannot be viewed in isolation. The proposed Term Sheet can be summarized as follows:

1: Revenues

The Term Sheet identifies a number of revenue guarantees for the City. Facebook has agreed to pay \$300,000 yearly to the City for 20 years after occupancy of Building 21. This payment would be indexed based on the consumer price index (CPI) every five years. The Term Sheet also contains a guarantee of a \$336,000 payment upon occupancy of Building 21 for up to 41 years. However, two years after TE vacates the site, this specific payment will increase to \$1.25 million per year, as a transient occupancy tax (TOT) guarantee. If the hotel is built, TOT generated from the hotel would be credited toward the \$1.25 million TOT guarantee. In addition, Facebook has agreed to set the TOT rate for the hotel one basis point higher than the rate that would be otherwise applicable. While the hotel is a limited service hotel, Facebook has agreed that it will include a restaurant and hotel bar, which would generate additional sales tax revenue for the City and achieve higher room rates.

The Term Sheet also includes a minimum assessed value guarantee for each building: \$325 million for Building 21, \$300 million for Building 22, and \$70 million for the hotel. The assessed value would increase by the lesser of 2 percent or the CPI annually and the term would be 39 years.

There is currently a cap on the utility users' tax (UUT) at the site of \$6,000 per year; however, the Term Sheet provides for a waiver of this cap, not only for the new buildings but for Building 20. Therefore, Facebook would pay the total applicable UUT for all utilities utilized on the site.

The Term Sheet also requires Facebook to cooperate with the City's sales and use tax consultant to ensure the maximum amount of use taxes from construction of the project are directed to the City.

It is anticipated that if the three buildings are completed within ten years, the annual additional revenue generated by the development would be approximately \$2.1 million for 10 years thereafter and more than \$1.8 million for so long as Facebook is occupying the site.

2: Infrastructure and Transportation

As part of the Term Sheet, the City and applicant have negotiated a number of community benefits related to infrastructure and transportation. These benefits are above and beyond the mitigation measures required to reduce potentially significant impacts as determined by the Draft EIR.

Facebook recently funded the Dumbarton Corridor Study through SamTrans for a total of \$1 million. As part of the Term Sheet, Facebook has agreed to contribute funding future recommendations derived from the Dumbarton Corridor Study, which could include pre-design and/or environmental clearance of preferred corridor transit improvements, negotiations with Union Pacific Rail Road to remove freight track-age rights and re-certify the corridor with the Federal Transportation Authority, or other studies or actions to activate this resource and support regional mobility options. Facebook would commit up to \$1 million to fund these additional obligations related to the Dumbarton Corridor. The Term Sheet also identifies that Facebook will partner with the cities of Menlo Park and East Palo Alto to convene a forum to consider and evaluate innovative ways that the recommendations of the Dumbarton Corridor Study may be executed efficiently. This forum would concentrate on funding, operations, and construction strategies as well as innovations to facilitate an integrated execution of regional improvements to multi-modal transportation options. Facebook agrees to help develop the design, operations, and constructions strategies and spend up to \$1 million on this commitment. Facebook will also continue to participate in projects that arise from

the Dumbarton Corridor Study, but any additional monetary contribution would be at Facebook's discretion.

As a separate study, Facebook has committed to the funding of the design for the pedestrian and bicycle pathway along the Dumbarton Corridor from East Palo Alto to the Redwood City Caltrain Station. The study began in February 2016 and is expected to be completed in September 2016.

The City is currently undergoing the ConnectMenlo General Plan Update, which focuses on the M-2 Area, north of Bayfront Expressway. As part of the negotiation process, Facebook agrees to partner with the City and other land-owners and employers in the study area of the General Plan Update to fund a Transportation Management Association (TMA) Feasibility and Implementation Strategy. The study is intended to identify potential implementation strategies and if funds remain, fund a portion of the TMA's startup costs. Facebook agrees to cooperate with the City and stakeholders, including the sharing of Facebook's best practices with the TMA. The financial commitment for this item is \$100,000.

Facebook recently completed the first phase of the Chilco Street frontage and streetscape improvements. The improvements are expected to be completed in six phases. Facebook previously agreed to complete Phases 1-4 at its sole cost. Per the Term Sheet, Facebook will complete phases 5 and 6 (also at its own cost), which include installation of bike lane improvements on the north side of Chilco Street and streetscape, sidewalk, and bike improvements on the southern side of Chilco Street across the rail crossing. In return for constructing these improvements, the City agrees to reduce the Building Construction Street Impact Fees assessed against the project by the actual cost of the additional improvements (estimated to be approximately \$2.5 Million).

3: Housing

Per the Term Sheet, Facebook will collaborate with the cities of Menlo Park and East Palo Alto to conduct a Housing Inventory and Local Supply Study. The study would assess the conditions, occupancy, and resident profiles of the immediate vicinity, with the intent of establishing a baseline understanding of the housing conditions and facilitate the development of an informed regional housing strategy. Facebook will engage a consultant and provide \$350,000 for the study. As an outcome of the Housing Study, Facebook would also establish a Housing Innovation Fund with a commitment of \$1.5 million.

In addition, Facebook would establish a Housing Preservation Fund pilot project to identify and purchase housing in the immediate area of the campus to protect at-risk populations. The monetary commitment for the fund would be \$1 million. Facebook would also be required to initiate workforce housing by subsidizing rents for 22 units at 777 Hamilton Avenue. These subsidized rents would be for community serving professions such as teachers. Units would also be able to be occupied by employees in public safety professions and non-profits. The subsidy for the 22 units would be \$430,000 per year for five years.

Facebook is required to comply with the BMR ordinance of the City of Menlo Park. As such, Facebook intends to continue to work with the City to explore opportunities to develop the maximum number of units that can be procured with the estimated \$6.3 million required in-lieu fee.

If the ConnectMenlo General Plan update is approved, Facebook would commit to develop at least 1,500 housing units on the Prologis Site, which would include 15 percent BMR units and/or workforce housing units (even if the BMR ordinance does not apply to rental units).

4: Community Benefits

The Term Sheet identifies the following community benefits from Facebook. Facebook would commit to fund pool operation and maintenance at the Belle Haven pool for five years for a cost of \$60,000 annually. Facebook would also establish a scholarship program for residents of East Palo Alto and Menlo Park for 10 years, with a commitment of \$100,000 per year. After 10 years, Facebook agrees to consider extending the program. In addition, Facebook would continue to provide funding for the community fund at \$100,000 per year for five years. Consistent with the scholarship fund, Facebook agrees to consider extending funding after five years.

The bicycle and pedestrian bridge over Bayfront Expressway is part of the project. However, Facebook agrees to operate and maintain the bridge and the public open space between Buildings 21 and 22. The path and bridge will be open for use by the public 24 hours a day, 365 days a year.

5: Environmental benefits

The office buildings are required, per the Term Sheet, to be built to LEED Gold Equivalency. Solar PV panels would be located at Building 21. Facebook would also install a recycled water system on-site, provided the system is approved by all applicable agencies and City departments. If West Bay constructs a recycled water system, Facebook will pay its proportionate share of costs for its future developments in the M-2 Area. Facebook also agrees to contribute \$25,000 in seed funding for the feasibility studies for an M-2 Area recycled water system.

6: Other

In exchange for the negotiated benefits, the City agrees to provide Facebook assurances as to certain changes in fees and applicable laws similar to those included in previous development agreements. This protection expires after 20 years. In addition, the City agrees to expedite the construction permitting for the project internally and externally to the extent feasible. Facebook agrees that the development agreement for the East Campus will be amended to remove the ability for Facebook to reduce the annual payment.

Impact on City Resources

The project sponsor is required to pay Planning, Building and Public Works permit fees, based on the City's Master Fee Schedule, to fully cover the cost of staff time spent on the review of the project. For projects requiring consultants, such as environmental review, the Project Sponsor deposits money with the City and the City pays the consultants.

Environmental Review

A Draft EIR has been prepared for the project. The public comment period on the Draft EIR closed on July 11, 2016 at 5:30 p.m. and staff and the consultant have begun to compile the responses to comments document, and will consider and respond to comments received on the Draft EIR. Repeat comments may be addressed in Master Responses, and portions of the EIR may be revised in ~~striketrough~~ (deleted text) and underline (new text) format. Once the responses and revisions are complete, the Final EIR will be released, consisting of the Responses to Comments plus the Draft EIR. The Final EIR will be considered by the Planning Commission and City Council concurrent with the final project actions.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

A. Letter from Facebook and Development Agreement Term Sheet

Report prepared by:
Kyle Perata, Senior Planner

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July 14, 2016

The Honorable Rich Cline
Mayor of the City of Menlo Park
And Members of the City Council
701 Laurel Street
Menlo Park, CA 94025

RE: Facebook Campus Expansion Project – Development Agreement Term Sheet

We are pleased to present you with the proposed Development Agreement Term Sheet for the Facebook Campus Expansion Project. It outlines the terms we negotiated with the City's team, and is the product of an extensive and collaborative dialogue that involved countless hours of work.

In negotiating the Term Sheet, we were mindful of the difficult issues facing the City and the region and tried to prioritize public benefits that addressed those issues. To this end, we have proposed both short-term solutions that attempt to provide immediate support and long-term solutions that we hope will initiate broader, more transformative changes.

The Facebook Campus Expansion Project is fully compliant with the existing General Plan, and conforms to the existing zoning and density limits in the M-2 area with the exception of building heights and a request to allow a 200-room hotel. It will add only approximately 126,000 net new square feet of commercial space, and, when completed, will be a significant public benefit transforming a closed and isolated industrial site into a vibrant campus that connects Belle Haven to the Bay. It also is being proposed in the context of Facebook's existing contributions to the community which have been ongoing since we first moved to Menlo Park in 2011. Facebook believes that the proposed terms for the Development Agreement confer generous and appropriate public benefits. We understand that the negotiating team and the Council Subcommittee have approved the proposed terms and are recommending approval to the full Council.

To recap, the Development Agreement Term Sheet provides public benefits in six categories, including:

1. Financial Benefits:

- Recurring Public Benefit Payment of \$300,000 per year for twenty years (increased by CPI every five years).
- Commitment to pay four times the amount of sales tax historically captured from the site (totaling \$336,000 per year) each year upon the occupancy of the

first office building until two years after the existing tenant at 305 Constitution (which forms part of the site for the proposed hotel) vacates that building.

- Commitment to guarantee \$1.25 million per year in transient occupancy taxes from the new hotel, beginning two years after the existing tenant at 305 Constitution vacates that building.
- Commitment to pay 1% higher TOT rate for the hotel than would otherwise be applicable.
- Commitment to work with the City to maximize the capture of sales and use taxes arising from the purchase of construction materials, furniture, equipment and personal property.
- Property tax guarantee assuring the City that the assessed value of the property following completion of the project will be \$695 million (which is projected to generate new property taxes of approximately \$550,000 per year for the City's General Fund).
- Agreeing to waive the cap on the City's Utility User's Tax for the Project, as well as waiving the cap that currently applies to Facebook's Building 20.

2. Transportation and Infrastructure Benefits:

- \$1 million contribution to SamTrans for funding the *Dumbarton Corridor Study* as a multi-modal transportation corridor.
- \$1 million contribution to fund future recommendations arising from the *Dumbarton Corridor Study*, and a commitment to participate in new projects that arise from the *Dumbarton Corridor Study*.
- \$100,000 commitment towards a Transportation Management Association (TMA) program serving the areas surrounding the Facebook campus and to share its best TDM practices with the City and other local landowners and employers.
- \$700,000 commitment to fund the design of a pedestrian/bicycle path between East Palo Alto and Redwood City Caltrain Station.
- \$1 million funding commitment to sponsor a regional forum with Menlo Park, East Palo Alto, San Mateo County, Santa Clara County, and regional stakeholders to evaluate innovative ways that the recommendations of the *Dumbarton Corridor Study* could be executed quickly and with minimal delays, and to help develop design, operational, and construction strategies to implement recommendations following the forum.
- Commitment to complete Chilco Street Improvements, including extensive streetscape, pedestrian and bicycle improvements, at Facebook's sole cost. Facebook will also commit to constructing additional Chilco Street Improvements, which would include installation of bike lane improvements on the northern side of Chilco and streetscape, and sidewalk and bike

improvements on the southern side of Chilco across the rail crossing, in exchange for a reduction in construction street impact fees.

3. Housing Benefits:

- Commitment to explore opportunities and identify projects that can be directly financed and implemented as soon as is feasible in order to leverage approximately \$6.3 million in BMR housing fees to create the maximum number of affordable units feasible.
- \$350,000 funding commitment to conduct a *Housing Inventory and Local Supply Study* in partnership with the City of Menlo Park and East Palo Alto to assess local housing conditions and facilitate development of a regional housing strategy.
- \$1.5 million funding commitment to establish a *Housing Innovation Fund* to identify near-term actions that can be taken within the local community as a direct outcome of the *Housing Inventory and Local Supply Study*.
- \$1 million commitment to establish a pilot *Housing Preservation Fund* to identify and purchase housing in the immediate vicinity of our campus to protect at-risk populations.
- Commitment to initiate a pilot *Workforce Housing Program* in the Belle Haven community that will reduce rents for up to 22 units of workforce housing at 777 Hamilton Avenue for five years (up to \$430,000 per year for five years, or \$2.15 million) with priority being given to local teachers.
- Commitment to the planning and design of at least 1,500 housing units on the Prologis Site consistent with the General Plan Update and agreement that any residential project on the Prologis Site must include 15% BMR units and/or workforce housing units (regardless of whether the units are for sale or rentals).

4. Project Benefits:

- A new, two-acre publicly accessible open space to be privately maintained by Facebook for use by Facebook and the community, with space for programming and events such as farmer's markets, movie-nights and food truck festivals.
- A new, publicly-accessible, multi-use bridge across Bayfront Expressway that will provide a safe connection from Belle Haven to the Bay.

5. Environmental Benefits:

- Commitment to LEED Gold and development of a recycled water system to reduce water demand by approximately 20 million gallons annually.
- Commitment to pay \$25,000 to help fund a feasibility study for a Bayfront area-wide recycled water system.

- Funding a docent for two years, a new interpretive display associated with the multi-use bridge, realignment of the Bay Trail and a snowy plover enhancement study to benefit Bedwell Bayfront Park.

6. Local Community Benefits:

- Commitment to underwrite operating expenses for the year-round operation of the local Belle Haven Pool (\$60,000 per year for five years) and fund the local community fund (\$100,000 per year for five years).
- Commitment to establish and fund a new scholarship program for students residing in Menlo Park and East Palo Alto (\$100,000 per year for ten years).
- Commitment to contribute \$1 million to the Bedwell Bayfront Park Maintenance Fund for maintenance and operations.

Facebook's obligations under the Development Agreement will be considerable. They are in addition to the significant resources we have previously contributed to the City and surrounding communities, not to mention the many other steps we have taken to minimize our impact such as our operation of a robust TDM program that prevents a significant proportion of our employees from driving alone to work. We have worked hard to be a good neighbor, and we think the items included in the Development Agreement Term Sheet continue this commitment.

We thank you for your consideration of this matter, and welcome your questions and a further dialogue at our upcoming public hearing on July 19, 2016.

Sincerely,



John Tenanes
VP, Global Facilities & Real Estate

Proposed Term Sheet for the Campus Expansion Project

<p>Revenues</p>	<p>Facebook offers the following revenues and revenue guarantees:</p> <ul style="list-style-type: none"> ● Upon occupancy of Building 21, Facebook will pay the City \$300k per year for 20 years, to be increased by CPI every 5 years. ● Upon occupancy of Building 21, Facebook will pay the City \$336k per year (4x the \$84K in sales taxes that TE historically paid according to the City's Fiscal Impact Assessment) to be increased by CPI every 5 years. This obligation will continue until the earliest of (a) 2 years after TE vacates 305 Constitution, (b) 41 years after the first payment is made, or (c) Facebook's vacating of the site. If TE vacates 305 Constitution and the hotel opens before this payment obligation expires, Facebook will be entitled to a credit for any TOT received by the City and payable with respect to the period of time that this in-lieu payment is payable. ● 2 years after TE vacates 305 Constitution, Facebook will guarantee that the City receives TOT of at least \$1.25M (increased by CPI every 5 years) per year. This obligation will continue until the earlier of Facebook's vacating of the site or 41 years after TE vacates 305 Constitution (39 years + 2 years when the in-lieu sales tax is payable). Facebook will pay hotel rates consistent with then current standard rates, excepting block reservation discounts which will be permitted. TOT will be payable on extended stays. ● Facebook agrees that the hotel's TOT rate will be set 1 basis point higher than the rate that would otherwise be applicable. ● Facebook will guarantee the following assessed values on a building-by-building basis: (a) Building 21 - \$325,000,000, (b) Building 22 - \$300,000,000, and (c) Hotel - \$70,000,000 (each increased by the lesser of 2% or CPI annually). These guarantee obligations will commence upon occupancy for each respective building and will continue until the earlier of Facebook's vacating of the site or 39 years from receipt of a certificate of occupancy for the applicable building. ● There will be no cap on the Utility Users Tax (UUT) at the TE site once TE vacates 305 Constitution. There will be no cap on the UUT at Building 20 upon the earlier of January 1 or July 1, following the effective date of the Development Agreement. <p>If all the buildings are completed within 10 years, the annual additional revenues generated by the project will be approximately \$2.1M.</p> <p>Facebook will also cooperate with the City's sales and use tax consultant to ensure that the maximum amount of use taxes from construction of the project are directed to the City.</p> <p>The current vision for the hotel is a limited service hotel. Facebook agrees that the hotel must include a restaurant and a hotel bar.</p>
<p>Infrastructure/ Transportation</p>	<p>STUDY:</p> <ol style="list-style-type: none"> 1. Facebook has committed funding to SamTrans for the <i>Dumbarton Corridor Study</i> as a Multi-Modal Transportation Corridor. This study, begun in February, 2016, is scheduled to be made public in April 2017. The financial value of this commitment is \$1M.

2. Facebook agrees to fund future recommendations arising from the *Dumbarton Corridor Study*. These may include:
 - a. Pre-design and/or environmental clearance for preferred corridor transit improvements,
 - b. Negotiations and/or payments to UPRR to extinguish freight trackage rights and re-certification of the corridor with the Federal Transportation Authority to allow multiple modes, or
 - c. Other studies and actions to support the activation of this un-used resource to support regional mobility options.

The financial value of this commitment is up to \$1M.

3. Facebook proposes to partner with the City and other land-owners and employers in the study area of the General Plan Update to fund a Transportation Management Association (TMA) Feasibility & Implementation Strategy. This study will review the hurdles to and triggers of service delivery and will identify potential implementation strategies, and, if sufficient funds remain, fund a portion of the TMA's startup costs. In addition, Facebook agrees to cooperate with the City and other landowners and employers in connection with the implementation of a TMA, and to share Facebook's best practices with the TMA. The financial value of this commitment is \$100k.

DESIGN:

Facebook has committed funding to SamTrans for the Design of a Pedestrian/Bicycle Path between East Palo Alto and Redwood City Caltrain Station. This study, begun in February 2016, is scheduled to be completed by September 2016, and will enable the shared path to be environmentally cleared if it is selected as a preferred solution by SamTrans in the *Dumbarton Corridor Study*. The financial value of this commitment is \$700k.

DEVELOP STRATEGY:

Facebook recognizes that regional transportation issues require equitable regional partnerships. Facebook proposes to partner with Menlo Park, East Palo Alto, San Mateo County, Santa Clara County, and other key stakeholders to convene a forum to consider and evaluate innovative ways that the recommendations of the *Dumbarton Corridor Study* may be executed with minimal delays. Facebook envisions that this forum will concentrate on funding, operational and construction strategies as well as innovations intended to facilitate an integrated execution of regional improvements to multi-modal transportation options. In addition, and following the forum, Facebook agrees to help develop design, operational and construction strategies. Facebook agrees to spend up to \$1M on this commitment.

Facebook agrees to participate in new projects that arise from the *Dumbarton Corridor Study*, however, the amount of any financial contribution will be in Facebook's sole discretion.

IMPROVEMENTS:

Facebook will complete certain Chilco streetscape improvements (phases 1-4) at its sole cost. In addition, Facebook will complete certain additional Chilco streetscape

	<p>improvements requested by the City (phases 5 and 6). These additional improvements include installation of bike lane improvements on the northern side of Chilco and streetscape, sidewalk and bike improvements on the southern side of Chilco across the rail crossing. As consideration for performing the additional Chilco streetscape improvements, the City agrees to reduce the Construction Street Impact Fees assessed against the Project by an amount equal to the actual costs for such additional improvements.</p>
<p>Housing</p>	<p>To help ameliorate its impact on regional housing, Facebook offers to provide the following housing benefits:</p> <p>STUDY:</p> <p>Facebook will collaborate with the cities of Menlo Park and East Palo Alto to conduct a <i>Housing Inventory and Local Supply Study</i> to assess the conditions, occupancy, and resident profiles of the immediate vicinity. The intent of this study is to establish a baseline understanding of the housing conditions in the area and facilitate the development of an informed regional housing strategy. Facebook will engage the consultant that performs the study. The value of this commitment is \$350k.</p> <p>PILOT:</p> <ol style="list-style-type: none"> 1. Facebook will, in connection with a reputable affordable housing manager, seek to establish a Housing Preservation Fund pilot project. This pilot project will establish a fund to identify and purchase housing in the immediate vicinity of our campus to protect at-risk populations. The value of this commitment is \$1M. 2. Facebook proposes to initiate a Workforce Housing Pilot program in the Belle Haven community. This pilot will subsidize rents for up to 22 units of workforce housing at 777 Hamilton Avenue for community serving professions such as teachers. Facebook will partner with an appropriate organization to administer the program. The allocation of the units will be prioritized as follows: (1) teachers employed by the Ravenswood City School District or a non-profit school that is located in the area encompassed by the Ravenswood City School District, (2) teachers employed by the Menlo Park City School District, the Las Lomitas School District or teachers directly employed by Menlo-Atherton High School, (3) persons engaged in public safety professions (e.g., police officers, fire fighters, etc.) and employed by the City or the Menlo Park Fire Protection District, and (4) persons employed by public interest non-profit organizations located in the cities of Menlo Park or East Palo Alto. The value of this commitment is up to \$430k per year for 5 years or up to \$2.15M. 3. Facebook will establish a Housing Innovation Fund to identify near-term actions that may be taken with the community as a direct outcome of the <i>Housing Inventory and Local Supply Study</i>. The value of this commitment is \$1.5M. <p>BUILD/DESIGN:</p> <ol style="list-style-type: none"> 1. Facebook will explore opportunities that will allow it to use BMR housing fees payable in connection with the project to develop the maximum number of units that can be procured with those fees. The value of this commitment is \$6.3M. 2. If the General Plan Update is approved, Facebook will commit to the planning and design

	<p>of at least 1,500 housing units on the Prologis Site. Facebook agrees that any residential project on the Prologis site will include 15% BMR units and/or workforce housing units (regardless of whether the units are for sale or rentals).</p>
Community Benefits	<p>Facebook will fund \$60k per year for pool operation and maintenance for 5 years.</p> <p>Facebook will establish a scholarship program (\$100k per year) for residents of East Palo Alto and Menlo Park for 10 years. Upon the expiration of the 10 year term, Facebook agrees to consider extending the program.</p> <p>Facebook will provide additional funding for the community fund (\$100k per year) for 5 years. Upon expiration of the 5 year term, Facebook agrees to consider extending funding for the community fund.</p> <p>Facebook will pay the City \$1M to fund maintenance and operations at Bedwell Bayfront Park by making a one-time payment to the Bedwell Bayfront Park Maintenance Fund.</p> <p>Facebook will build and operate a bike/ped bridge over Bayfront Expressway which will be accessible to the public and build, operate and maintain a public space between Buildings 21 and 22 that will be open to the public but remain private property. The public space will be a passive open space. The public space will not be available for active recreation sports. Facebook will set reasonable daytime operational hours for the public space. Facebook will be responsible for the programming, maintenance, operation and scheduling of activities at the public space and may enact reasonable rules (e.g., no camping, no open flames, etc.). The City agrees to cooperate with Facebook to ensure it has reasonable control over the public open space (e.g., an easement will not be the appropriate means of conveying the right to use the public space).</p> <p>Facebook agrees to keep the path connecting the bike/ped bridge and Chilco Street open 24/7/365 (except that Facebook will be permitted to close the path in cases of emergency).</p>
Environmental Benefits	<p>Facebook will build Buildings 21 and 22 to LEED Gold including provision of PV panels at Building 21.</p> <p>Given the industrial history of the site, redevelopment will likely require further soil remediation and cleanup (estimated cost of \$2M).</p> <p>Facebook will install a recycled water system on its site. If a recycled water system is developed by West Bay, Facebook agrees to have future buildings it develops in the M-2 area pay their proportionate share of the systems' costs. In addition, Facebook agrees to contribute \$25k in seed funding for feasibility studies for an M-2 area recycled water system.</p>
Other	<p>The City will provide Facebook assurances as to changes in fees and applicable law similar to those included in the previous DAs. This protection will run for 20 years.</p> <p>The City will do what it can to help expedite the project internally and externally (including with neighboring communities). This will include working with Facebook to create an expedited permitting plan for the construction phase of the project.</p> <p>Facebook agrees that the DA for the East Campus will be amended to remove the ability to reduce the annual payment. Facebook will, however, retain the right to revert to the previous employee cap and cease having to make the in-lieu payment.</p>



STAFF REPORT

City Council
Meeting Date: 7/19/2016
Staff Report Number: 16-129-CC

Regular Business: **Appoint a City Council Subcommittee to assist with negotiation of a development agreement for the Station 1300 Project, and provide direction for the consideration of the subcommittee**

Recommendation

Staff recommends that the City Council take the following actions for the Station 1300 project (also known as the 1300 El Camino Real proposal):

- Appoint two of its members to a City Council Subcommittee to assist the City negotiating team with and provide feedback on a Development Agreement; and
- Provide direction, if any, on the proposed Public Benefit, for the consideration of the Subcommittee.

Policy Issues

The creation of a Council Subcommittee and any direction on the proposed Public Benefit would be used to refine the project, which would be presented for future Council consideration.

Background

Project description

Greenheart Land Company (“Greenheart”) is proposing to redevelop a multi-acre site on El Camino Real and Oak Grove Avenue with up to 217,000 square feet of non-residential uses and approximately 182 dwelling units. A location map is included as Attachment A. The project would demolish the existing structures in the southern portion of the site and construct approximately 420,000 square feet of mixed uses. In total, the project would include three mixed-use buildings, a surface parking lot, an underground parking garage, onsite linkages, and landscaping. The uses at the project site would include approximately 188,900 to 199,300 square feet of non-medical office space in two buildings, approximately 202,100 square feet of residential space in one building, and up to 29,000 square feet of community-serving space throughout the proposed office and residential buildings. The project would provide approximately 1,000 parking spaces within an underground parking garage and a small surface parking lot. Excerpts of the project plans are included for reference as Attachment B. The project plans are still undergoing refinement, and will change somewhat prior to final review.

Analysis

Public Benefit Bonus

The primary focus of the July 19 meeting is the designation of two Council Members to a Subcommittee, which would assist staff in negotiating the Public Benefit associated with the project.

The project would be consistent with the allowed development in the ECR NE-R District with a Public Benefit Bonus. The permitted Floor Area Ratio (FAR) is 1.10, but with a Public Benefit Bonus the FAR can increase to 1.50. In either scenario, non-medical office is limited to no more than one-half the maximum FAR. The maximum height in the ECR NE-R district is 38 feet, although 48 feet is permitted with a Public Benefit Bonus. In either scenario, building facades cannot exceed a height of 38 feet. The project would be constructed at the maximum FAR and height as permitted with a Public Benefit Bonus.

The Public Benefit Bonus process allows additional development beyond the base intensity and height in exchange for providing additional benefits to the public. Potential examples of public benefits listed in the Specific Plan include publicly accessible open space, senior housing, additional affordable residential units, hotel facilities, preservation/reuse of historic resources, public parks/plazas, shuttle services, or a public amenity fund contribution.

Applicant proposal

The project has submitted a Public Benefit proposal, which is included as Attachment C. The proposal discusses a number of inherent project benefits, although the Public Benefit itself would take the form of a cash contribution to the pending El Camino Real/Downtown Specific Plan Public Amenity Fund, in the amount of \$2,100,000. The applicant has requested that this be memorialized through a Development Agreement, in order to document the project's contribution and vest any project entitlements ultimately approved by the City.

Fiscal/economic analysis

As required by the Specific Plan, staff has coordinated the preparation of an independent fiscal/economic analysis of both the project and its Public Benefit proposal, which is included respectively as two memos (Attachments D and E) by the City's consultant BAE. BAE has prepared detailed 'pro formas,' which examine typical revenues and costs for both the Public Benefit Bonus proposal (Bonus Project), as well as a similar proposal at the Base-level development standards (Base Project). The Base Project has not been fully designed, but the applicant has described it in sufficient detail for BAE to analyze its relative value. Both pro formas take into account factors such as current construction costs, City fees, capitalization rates, and typical market rents. However, as noted in the document, such factors can change, which may substantively affect the conclusions of the analysis. For this case, BAE has determined that development of the proposed Bonus Project would create approximately \$6,300,000 in additional project value compared to the Base Project.

For the value of the proposed Public Benefit, the cash nature of the applicant's proposal means that BAE does not need to provide possible estimates of its equivalent monetary value (as was done for other projects that proposed on-site benefits such as a community garden). However, BAE has provided analyses of the proposed \$2.1 million payment's relationship to other considerations. For example, at its most basic, the proposed payment would represent one-third of the estimated value increase for the proposed project ($\$2.1 \text{ million} / \$6.3 \text{ million} = 0.333$). BAE has also included comparisons with how other jurisdictions are considering this topic, as well as a draft analysis of a "FAR-foot value" calculation method discussed by the Planning Commission during a previous discussion of the public benefit topic.

The memo does not recommend acceptance or rejection of the applicant's Public Benefit proposal, but provides context for consideration. The Public Benefit Bonus process allows for a wide range of discussion/direction on the topic, although the core question is whether the public benefits and the developer benefits are roughly aligned, or whether the public benefit proposal needs to be augmented or otherwise revised. The Specific Plan does not establish an explicit ratio for the value of the public benefit in relation to the developer benefit. However, it is implied that these values should not be orders of magnitude apart. For reference, the in-progress General Plan Update includes draft Zoning Ordinance updates that

would establish a “floor area-foot” value calculation for Bonus level projects, with a requirement that community amenities be valued at 50 percent of the increased project.

Planning Commission review

On March 21, 2016, the Planning Commission considered this topic in a study session. The Commission did not take any action, but provided individual comments for the consideration of the applicant and staff. The approved excerpt minutes are included as Attachment E.

From staff’s perspective, the Commissioners generally appeared to consider the proposal favorably, with some caveats. Such individual comments included the following:

- Additional residential units, in particular more BMR units, could be considered a public benefit (possibly in lieu of the proposed financial contribution, or possibly in addition to it);
- The \$6.3 million profit increase estimate may be conservative, in which case a higher contribution could be appropriate;
- Public benefit could be considered more broadly, accounting for elements like the project’s on-site plaza/park spaces;
- A contribution of one-half of the estimated profit increase may be more appropriate than the proposed one-third; and
- Whatever the amount, a financial contribution from the applicant could be used toward a number of goals, including transportation and housing improvements in the Specific Plan area.

City Council review and next steps

At this point, staff recommends that the City Council appoint two members to a subcommittee. Such a subcommittee would be charged with providing input to a City negotiating team for the proposed Development Agreement. Similar subcommittees have been a productive mechanism for other projects (such as the various Facebook development proposals) to finalize details.

Following the designation of a subcommittee, Council Members should also provide feedback on the Public Benefit Bonus. As part of this discussion, the Council may also note whether any additional information/analysis is needed to complete consideration of this topic.

The intent would then be to bring a Development Agreement Term Sheet back to the Council for formal approval. For the proposed project, if the proposed financial contribution remains the primary Public Benefit, the Term Sheet could potentially be brought back to the Council on August 30, 2016. In the meantime, the overall project continues to undergo review and refinement, and is expected to be presented for Commission and Council review and action later this year.

Impact on City Resources

The project sponsor is required to pay Planning, Building and Public Works permit fees, based on the City’s Master Fee Schedule, to fully cover the cost of staff time spent on the review of the project.

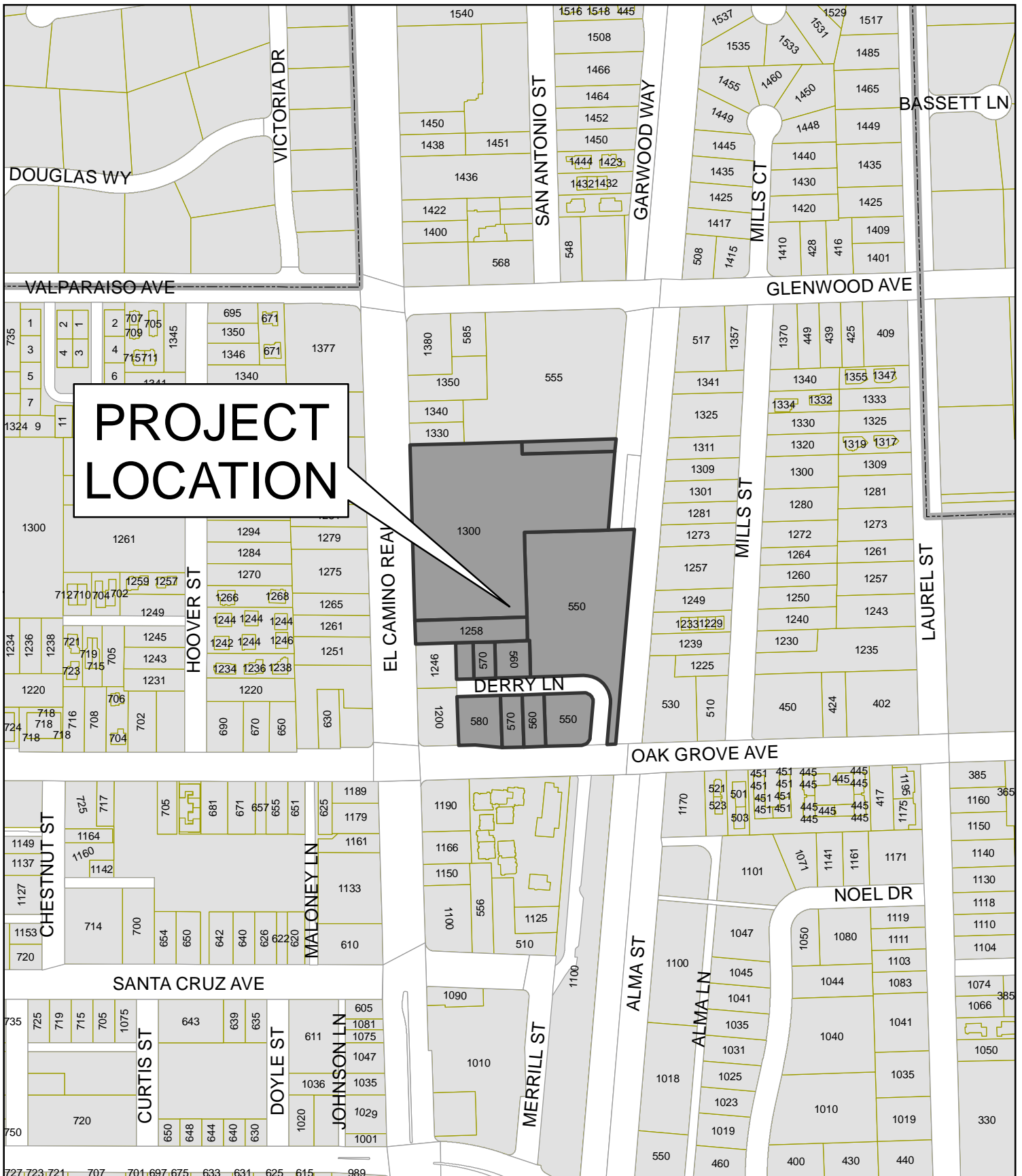
Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

- A. Location Map
- B. Project Plan Excerpts
- C. Station 1300 Public Benefit Proposal
- D. BAE Memorandum – Financial Modeling of Project
- E. BAE Memorandum – Evaluation of Proposed Public Benefit
- F. Planning Commission – March 21, 2016 Approved Excerpt Minutes

Report prepared by:
Thomas Rogers, Principal Planner

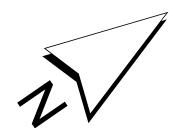


**PROJECT
LOCATION**



CITY OF MENLO PARK
 LOCATION MAP
 STATION 1300 (1300 EI CAMINO REAL)

DRAWN: THR CHECKED: THR DATE: 03/21/16 SCALE: 1" = 300' SHEET: 1



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Community Serving Uses include Restaurants, Retail & Personal/Business Services

1300 EL CAMINO REAL MIXED-USE
Menlo Park, California

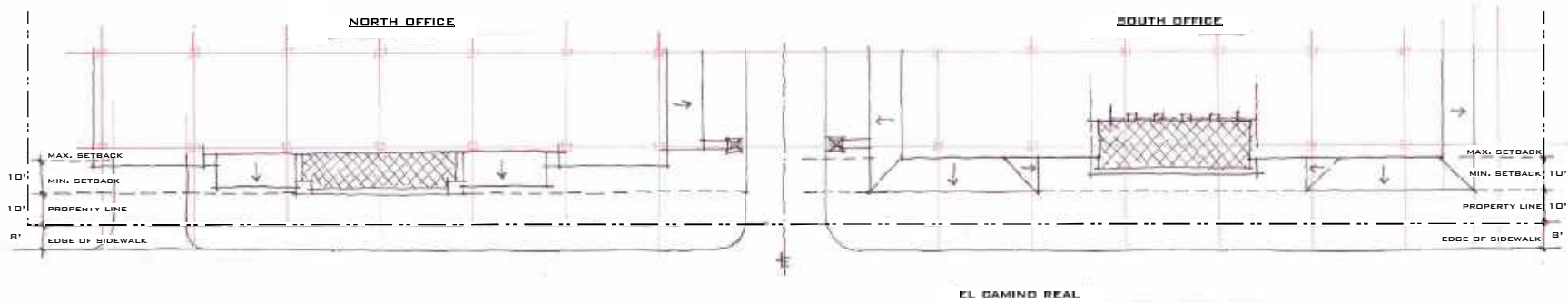
Site Plan at Ground Level

Owner: GREENHEART LAND CO.

Date: 07.29.2014

Project No.: 12060

BAR architects



EL CAMINO REAL



1300 EL CAMINO REAL
Menlo Park, California

Office Elevation at El Camino

Greenheart Land Co.

Date: 07/29/2024

Project No: 12060

BAR architects



1300 EL CAMINO REAL
Menlo Park, California

Office at El Camino

Greenheart Land Co.

Date: 07/29/2011

Project No: 12060

BAR architects



ENLARGED AREA



1300 EL CAMINO REAL
Menlo Park, California

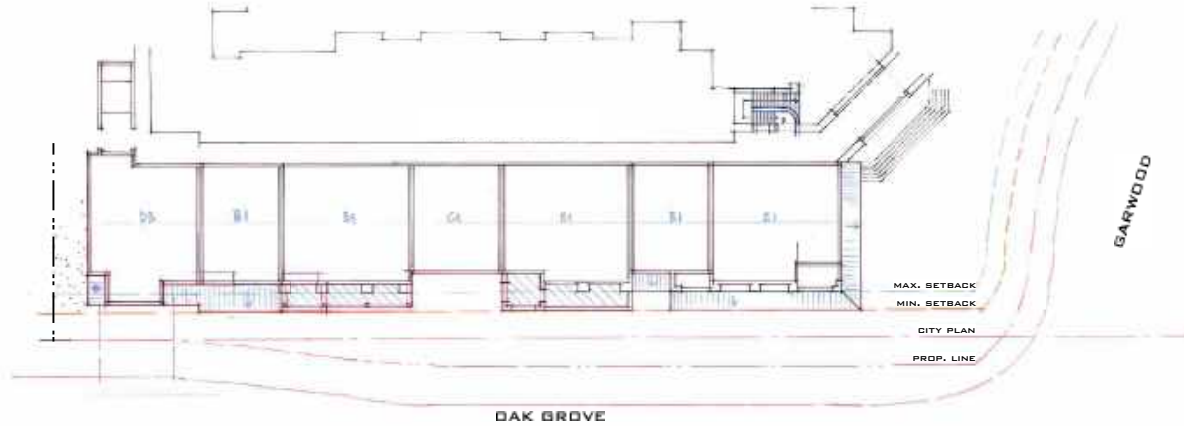
Oak Grove Retail Site Plan

Greenheart Land Co.

Date: 07/29/2024

Project No: 12060

BAR architects



SECOND THRU FOURTH FLOOR RESIDENTIAL UNITS





1300 EL CAMINO REAL
Menlo Park, California

Mixed-Use at Oak Grove

Greenheart Land Co.	Date: 07/29/2011	Project No: 12060	BAR architects
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1300 EL CAMINO REAL
Menlo Park, California

View from Oak Grove & Garwood Way

Greenheart Land Co.

Date: 07/29/2011

Project No: 12060

BAR architects













January 27, 2016

Mr. Thomas Rogers
Senior Planner, Community Development
City of Menlo Park
701 Laurel St.
Menlo Park, CA 94025

Re: Station 1300 Public Benefit Proposal

Dear Mr. Rogers,

Greenheart Land Company is pleased to submit the attached Public Benefit Proposal for Station 1300. The proposal describes the base and public benefit level developments, as well as the benefits that flow to the community.

We welcome your questions as you review this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read 'Steve Pierce', written over a horizontal line.

Steve Pierce
Principal
Greenheart Land Co..

**Public Benefit Proposal
for
Station 1300**

Prepared for:
City of Menlo Park

Prepared by:
Greenheart Land Company

January 27, 2016

Public Benefit Proposal for Station 1300

Greenheart Land Co. (“GLC”) has proposed to develop a mixed-use project at Public Benefit density at the properties located at 1258 and 1300 El Camino Real and the adjacent Derry Lane parcels. Preliminary drawings of the proposal have been submitted to the City. The following summarizes benefits of Station 1300 to Menlo Park.

There are two categories of benefits: (1) intrinsic community benefits, those that are integral to the development itself, and (2) Public Benefits, those that are proposed to achieve the public benefit density as specified in the El Camino Real/Downtown Specific Plan (“Plan”). Station 1300 will be a dramatic improvement to a prominent and long blighted site and, by its nature, bring extraordinary benefits that will be enjoyed by many. Station 1300 will be more than a place to work and live; it will offer the people of Menlo Park new venues to shop, eat and gather. Further, the intrinsic benefits to the community will include such things as new bike routes; sorely needed rental housing; revenues for the City, schools, and other public entities; and fulfillment of the Plan Vision.

At the public benefit density (“Public Benefit Case”), the intrinsic community benefits of Station 1300 will far exceed those of the base density (“Base Case”). For example, there will be more and larger public spaces; more greatly needed residential units; greater stimulus to the downtown; and more revenue to the City, schools, fire department and other governmental entities.

In addition to these intrinsic community benefits, GLC will make a Public Benefit cash contribution of \$2,100,000 to the Downtown Amenity Fund. This is one third of the incremental financial benefit that the City’s consultant BAE has determined will accrue to GLC from the Public Benefit Case.

The Public Benefit Case and Base Case developments are described below in Section I. The intrinsic community benefits are detailed in Section II, and the Public Benefit is described further in Section III.

I. Development Description

At base density (i.e., floor area ratio – FAR – 110%), Station 1300 would consist of 310,000 sf in the form of two 2-story office buildings totaling 155,000 sf; a 3-story rental residential structure; 10,000 sf of community serving businesses (such as restaurants and retail) spread among the three buildings; and a 5-level above ground parking structure. The public benefit density (i.e., FAR 150%) development would consist of 420,000 sf, which would include about 190,000 sf of office buildings at 3-stories; 202,000 sf of apartments at 4-stories; about 30,000 sf of space for community serving businesses; and one and one-half floors of underground parking. The Public Benefit Case would have more open space, more residences, and more space devoted to community serving businesses. The two development scenarios are described further in Exhibit A.

II. Intrinsic Community Benefits

Station 1300 will benefit Menlo Park in numerous ways, and the Public Benefit Case development has several advantages over the Base Case development. The benefits of the Base and Public Benefit cases are compared in Exhibit B and described in detail below. The costs of the community benefits for each case are summarized in Exhibit C.

Those benefits that are equally afforded by both alternatives are described below in Section IIA. By most measures the Public Benefit Case offers substantially more intrinsic community benefits as described in Section IIB.

A. Similar Benefits of Public Case and Base Case

Of the twelve Plan goals, Station 1300 fulfills all that are applicable. Some will be met to an equal degree by both cases.

- 1. Improve circulation and streetscape conditions on El Camino Real:** Greenheart will build a new public street on its property to connect Glenwood Ave with Oak Grove Ave. Ownership of the land and improvements will be deeded to the City. The new street will complete the connection between Encinal Ave and Ravenswood Ave, and improve access to the Caltrain station, and remove some cars from El Camino. With the missing link in place, Garwood will become a safe alternative bike route to El Camino Real for travel to the Caltrain station and Santa Cruz Ave. The cost to construct the new public street is estimated to be \$2,300,000 (excluding land and design costs) and will be borne by Greenheart.

Another important circulation program will be robust GLC Transportation Demand Management (TDM) program which will reduce the number of vehicular trips of employees and residents. These TDM's include Caltrain Go-Passes (free 24/7 train use) for every apartment and office employee, extensive bike parking, showers and changing rooms in the office buildings, preferential car pool parking, and pay parking, an economic incentive to not drive.

The El Camino streetscape at the site of Station 1300 has been a community embarrassment for more than a decade. Station 1300 will fulfill the long held citywide desire for improvement.

- 2. Ensure that El Camino Real development is sensitive to and compatible with adjacent neighborhoods:** The architecture of Station 1300 draws from the Spanish Eclectic that is enjoyed at the revered Allied Arts complex and many structures throughout Menlo Park. The apartments will face Garwood and Oak Grove and thereby provide an attractive façade to the residential neighborhoods to the east and the 1155 Merrill condominiums. Further, the apartments will be separated by over 100 ft. from the residential neighborhood to the east by the intervening Garwood extension and the railroad right-of-way.

3. **Revitalize the under-utilized parcels and buildings:** Station 1300 will revitalize one of the two most significant under-utilized areas on El Camino Real in Menlo Park.
4. **Provide an integrated, safe and well-designed pedestrian and bicycle network:** Currently Garwood terminates at the rear of Station 1300 at the border of the former Derry Property. With the extension of Garwood to Oak Grove and the provision of a sidewalk and bicycle route, the link between neighborhoods to the north, including the two new hotels, to the Caltrain Station, downtown, and beyond, will be completed to provide a route safer and more pleasurable than the El Camino alternative. Additionally, at GLC's expense, Oak Grove will be widened to accommodate a bike route, thereby improving the important connector between West Menlo and Menlo-Atherton High School.

B. Enhanced Benefits of the PB Case

Under the Public Benefit Case, many of the Plan goals will be met to a greater degree of than with the Base Case. In addition, the Public Benefit Case will generate more revenues for the City, schools and other governmental entities.

1. **Maintain Village Character:** Station 1300 will include the elements that define Menlo Park's "Village" character: street level activity, scale of buildings, open space, and eclectic and inviting architecture. The El Camino and Oak Grove frontages will have ground level shops and restaurants consistent with the areas around it. Even at the Public Benefit height, Station 1300 will be consistent with many of the buildings in the El Camino corridor, including the adjacent condominiums at the corner of Oak Grove and Merrill. Further, the buildings are highly articulated to break up the mass and to continue the varied shapes and forms that characterize the Plan area.

One dimension of Menlo's "Village" character is its open spaces. The Plan requires that new development in the Plan area have 20% open space. The Base Case alternative would barely achieve this objective because of the above ground parking structure. The Public Benefit Case would devote over 49% of the site to at grade open space. Underground parking (Public Benefit Case only) is a considerable benefit to the community because it eliminates the need for an above ground parking structure (Base Case) and thereby reduces building coverage and increases the amount of open space. Underground parking will cost GLC over \$26,000,000 more than above ground parking according to the BAE study done for the City. In addition, village character is enhanced by the elimination of the 5-level Base Case parking structure.

2. **Improve circulation and streetscape condition on El Camino Real:** In addition to the improvements described previously (e.g., extension of Garwood), Station 1300 will contribute nearly \$1,300,000 in traffic impact fees to improve circulation. (This is \$350,000 more than with the Base Case.)
3. **Activate the train stations:** Station 1300 is the "poster-child" for mixed-use transit oriented development. The importance of the proximity to the Caltrain station is emphasized in the

name of the development, Station 1300. The train station area will be activated by increasing train ridership and creating a center of activity at the Oak Grove Plaza.

Business and residential tenants will be attracted to Station 1300 because they want to get out of their cars and commute by train, as well as walk to downtown amenities. Further, GLC will issue Caltrain Go-Passes to all tenants to incentivize rail use.

The main entry of the residential building and Oak Grove Plaza will be oriented toward and have a line of sight connection with the train station. This node will be activated by the convergence of many uses: leasing office, adjacent retail, plaza café with outdoor dining, the grand entry to the apartments, and in the Public Benefit Case, the pedestrian entry to the under ground parking. The Public Benefit Case will have 35% more floor area, and therefore 35% more people than the Base Case. Thus, it will bring 35% more activity to the train station than the Base Case.

4. Expand shopping, dining and neighborhood services to ensure a vibrant downtown:

Along the El Camino Real frontage, the Public Benefit Case would offer two restaurants as well as community serving businesses. It is contemplated that Oak Grove businesses will include casual dining and other food related products. The Public Benefit Case will devote 18,600 sf to 29,000 sf to these uses. The Base Case will designate 10,000 sf for community serving uses.

In addition, activity in downtown will increase when there is a greater daytime and evening population to support existing and new businesses: restaurants, retail, and services. This in turn will attract more Menlo Park residents to downtown. Station 1300 office workers will be daytime patrons and new residents will enliven downtown in the evening. Like with the increased activity in the Caltrain Station area described above, the Public Benefit Case can reasonably be expected to bring 35% more stimulus, not counting the multiplier effect, to the downtown than the Base Case.

5. Provide residential opportunities in the Vision Plan Area: Menlo Park homes are among the most expensive in a region that itself is one of the most expensive in the U.S. The average sales price for a single family home in Menlo Park in 2015 was \$2,340,000. All residences at Station 1300 will be for rent, not purchase. Even at market rate, Station 1300 will add a significant number of relatively affordable units (when compared to purchasing a home) to the city housing stock. These units will appeal to a younger demographic that cannot afford to buy in Menlo Park and will, thereby, increase diversity. In addition, it is this demographic that will be especially drawn to Station 1300 because of the proximity of downtown resources. Under the Public Benefit Case, there will be 182 units, 10 of which will be below market rate (BMR). The Base Case development would have a total of about 130 units, 7 of which would be BMR. (GLC is proposing a BMR plan that could provide considerably more BMR units within the City, but in any event the Public Benefit Case will result in proportionally more BMRs.)

- 6. Provide plaza and park space:** Much of the increased open space afforded by underground parking will be made available to the public in the form of two plazas, an amphitheater plaza, and a park. These amenities are depicted in Exhibit D.

Unlike Alma Station, there is no plan to cordon off these spaces to prevent public access. Indeed, it is GLC's desire for the community to energize the spaces.

Central Plaza: Between the office buildings, there will be a large (approximately one-half acre) plaza that will be a central feature of Station 1300. (The Base Case Central Plaza would be considerably smaller.) This will be a multi-use gathering place for the community. The pedestrian entry off El Camino will be through a colonnade with restaurants on each side. The Garwood entry will take the visitor through a landscaped corridor, past Garwood Park, and through the amphitheater. At the western end will be family restaurant dining that will flow into the Plaza. The courtyard at the center will be bordered by landscaped islands that are 18 inches above the plaza surface, which will serve as seating. Café tables in the tree-shaded islands will be for non-restaurant dining or hanging out with friends or a laptop. Children, in particular, will enjoy the "play art" sculptures in the islands. The central courtyard will accommodate larger gatherings such as concerts, presentations, social gatherings, and the like. The design of the Central Plaza is intentionally flexible to allow uses as varied as reading in the shade to a reception for hundreds of people.

Oak Grove-Garwood Plaza: GLC will provide an approximately 3,600 sf plaza at the corner of Oak Grove and the new Garwood extension. (The Base Case plaza would be smaller.) The plaza will feature decorative paving, outdoor seating, and landscaping. It will be adjacent to food and retail services. This plaza is oriented to the Caltrain station to enliven the station area and is intended for outdoor dining in the spirit of Café Borrone's Plaza.

Garwood Park: GLC will provide an approximately 18,000 sf park near the northeast portion of the development along Garwood Avenue. This will be a place of recreation, both active and passive. Proposed amenities include bocce courts, ping pong tables, BBQs, picnic tables, and park seating. The park will be highly landscaped and have a shade trellis. (Garwood Park is not included in the Base Case.)

Plaza Amphitheater: Between Garwood Park and the Central Plaza will be an 8,200 sf amphitheater area for public presentations, musical or otherwise, at a scale more intimate than the Central Plaza. (The Base Case does not include the amphitheater.)

The construction cost of the park and plazas is estimated to be \$3,380,000. The plazas are priced at \$57 per square foot, which is the amount estimated for the Alma Station Public Benefit. At \$85 per square foot, Garwood Park will be somewhat more expensive because of the higher level of improvements (e.g., trellis, BBQ facilities, permanent game tables, and bocce courts). Refer to Exhibit C.

- 7. Financial Benefits:** Both the Base Case and Public Benefit Case developments will generate annual tax revenues to the City and other public entities, as well as one-time fees to the City

and schools. Those residing and working at 1300 ECR will also spend in the Menlo Park economy.

In summary, the Public Benefit development will provide the City and other public agencies, with over \$8,000,000 in impact fees, \$1,700,000 more than the Base Case development. The Public Benefit development will also spur over \$21,000,000 in annual retail sales in Menlo Park, which is \$10,000,000 more than the Base Case development.

Further, the Public Benefit Case will increase annual revenues to the City by \$550,000, which is \$170,000 more than the Base Case development. The Public Benefit development will provide \$1,700,000 per year in tax revenues to schools, which is \$425,000 per year more than the Base Case. The total annual revenues to all public agencies generated by the Public Benefit Case will be about \$5,000,000 or \$1,700,000 more than the Base Case.

- 8. Promote Sustainability**—A Downtown Plan guiding principle is to incorporate a *“comprehensive approach to sustainability and carbon emissions reduction, utilizing standards integrated with best practices and guidelines.”* Station 1300 has established the goal of LEED Platinum certified office buildings as well as LEED Gold certification for the residential building. In addition, the office building will attempt to be certified as a Net Zero Energy building by employing over 3,000 solar photovoltaic panels on the roofs as well as incorporating an Open Loop Ground Source Heat Exchange heating/cooling system that will utilize deep groundwater to heat/cool both the office and residential buildings. Reaching these goals will be a first by a privately funded speculative development in California. LEED Silver is the goal for the Base Case residential and office buildings.

III. Public Benefits

A. Introduction

As described previously, the Public Benefit Case offers the community intrinsic benefits that exceed those of the Base Case (e.g., greater revenues, more housing, more public open space). In addition, GLC will provide a Public Benefit that recognizes the value created by the increased floor ratio.

The Plan encourages Public Benefits that are on-site (e.g., parks, plazas, and common rooms, pg. E17) and off-site (e.g., shuttle services, public amenity funds, pg. E17). The goal of the Plan is to encourage project sponsors to incorporate on-site Public Benefits that improve project quality and long-term utility to the public. GLC has sought to design Station 1300 to fulfill the vision of the Plan in all respects and to be an enduring asset to the community. GLC believes that the Public Benefit Case includes, as intrinsic benefits, many on-site features that address the Plan’s goals for public amenities.

B. Proposal

GLC proposes, beyond the on-site benefits noted above, to contribute \$2,100,000 to the Downtown Amenity Fund for use in the Plan area in a manner decided by the people of Menlo

Park. This could include anything from a downtown parking structure, to downtown beautification, to whatever is deemed needed. The cash contribution would be one-third of the \$6,300,000 value calculated by BAE and nearly two times the 18% cash Public Benefit provided by Alma Station. Refer to Exhibit E for further explanation.

One major difference between the Public Benefit Case and the Base Case is the underground parking, which because of the high cost and additional time to construct increases development risk considerably. The amount of the contribution to the Downtown Amenity Fund reflects this added risk and the significant community benefits (e.g. open space and plazas) that are the consequence of locating the parking underground.

IV. Summary

The GLC Public Benefit consist of a \$2,100,000 contribution to the Public Amenity Fund. In addition, Station 1300 community benefits will include a park and plazas (1.2 acres) that are open to the public (costs \$3,380,000); the extension of Garwood for vehicles, bikes, and pedestrians (cost \$2,300,000); and for the Public Benefit Case additional impact fees (\$1,700,000) and additional annual revenues to the schools (\$425,000 per year), as well as other intrinsic benefits.

Exhibit A

Development Summary: Base and Public Benefit Cases Station 1300

Land Use/Description	Base Case	Public Benefit Case	Difference
Office			
No. of buildings	2	2	0
Height	38 ft	48 ft	10 ft
Façade height	38 ft	38 ft	0 ft
Stories	2	3	1
Space (sf)			
Office	155,000	188,900	33,900
Community serving (CS) (maximum)*	5,000	21,100	16,100
Total	160,000	210,000	50,000
Residential			
No. of buildings	1	1	0
Height	38 ft	48 ft	10 ft
Façade height	38 ft	38 ft	0 ft
Stories	3	4	1
Space (sf)			
Apartments	145,000	202,100	57,100
Community serving	5,000	7,900	2,900
Total	150,000	210,000	60,000
Apartments			
Market rate	123	172	49
Below market rate	7	10	3
Total	130	182	52
Office+Residential+CS			
Floor area ratio	1.10	1.50	0.40
Total area	310,000 sf	420,000 sf	110,000 sf
Parking			
Type	Above grnd	Below grnd	N/A
Levels			
Above ground	4	0	4
Below ground	1	2	1
Total	5	2	5
Parking spaces	813	980	167
Open Space at grade (Percentage of Site area)	20%	49%	29%

* The minimum amount of space for community serving businesses in the office buildings would be 10,700 sf, which would result in 199,300 sf of office space.

Exhibit B

Intrinsic Community Benefits

Comparison of Base and Public Benefit Cases

Benefit	Base Case	PB Case	Comments
<i>Downtown Specific Plan Vision</i>			
Maintain village character	X	XX	PB Case: 29% more of the site in open space
Improve ECR circulation and streetscape	X	X	Extend Garwood, Cost \$2,300,000
ECR neighborhood compatability	X	X	
Revitalize underutilized parcels	X	X	
Activate train station	X	XX	PB Case: more transit patrons and activity
Expand shopping and vibrancy	X	XX	PB Case: 35% more people and economic activity
Provide residential opportunities	X	XX	PB Case: 52 more units (3 more BMR units)
Provide plazas and park space	X	XX	PB Case: more plaza and park space at an additional cost of \$2,670,000
Central plaza	X	XX	PB Case: larger plaza
Oak Grove-Garwood Plaza	X	XX	PB Case: larger plaza
Garwood Park	0	X	Base Case: no park
Amphitheater Plaza	0	X	Base Case: no amphitheater
Provide pedestrian and bike network	X	X	
<i>Financial benefits</i>			
Annual tax rev. to all public agencies including schools	X	XX	PB Case: @1,700,000 per year more revenue
Annual tax rev. to schools	X	XX	PB Case: \$425,000 per year more revenue
Impact and connection fees	X	XX	PB Case: \$1,700,000 more fees
<i>Sustainability</i>			
Office buildings	X	XX	PB Case: seek to attain LEED Platinum and Net Zero Energy Base Case: LEED Silver
Residential buildings	X	XX	PB Case: LEED Gold Base Case: LEED Silver

Legend

0 = benefit not present

X = benefit present

XX = greater or enhanced benefit

Exhibit C

Cost of Intrinsic Community Benefits

Community Benefit	Cost to GLC		
	Base Case	PB Case	Difference
Garwood Extension	\$2,300,000	\$2,300,000	\$0
New Bike Routes	NIC	NIC	
Open Space (additional cost for underground parking)	\$0	\$26,000,000	\$26,000,000
Park and plazas	(sf)	(\$/sf)	
Central plaza*	20,930	\$57	\$570,000
Oak Grove/Garwood plaza*	3,620	\$57	\$142,500
Amphitheater plaza	8,224	\$57	\$0
Garwood Park	17,850	\$85	\$0
Total	50,624		\$712,500
			\$3,385,368
			\$2,672,868
Downtown Vibrancy	NIC	NIC	NIC
Rental Housing (more affordable than for sale housing)	NIC	NIC	NIC
Financial Benefits			
Annual tax revenue to public agencies	\$3,300,000	\$5,000,000	\$1,700,000
	per year	per year	per year
Impact fees & Connection fees	\$6,500,000	\$8,200,000	\$1,700,000
Fulfill El Camino Real/Downtown Specific Plan Vision	NIC	NIC	NIC

* Under the Base Case the Central Plaza will be about 10,000 sf and the Oak Grove Plaza 2,500 sf.

Exhibit D

Site Plan and Renderings



STATION
— 1 3 0 0 —

Site Plan



STATION
— 1 3 0 0 —

Shops, restaurants, and offices on El Camino Real



STATION
— 1 3 0 0 —

Shops on Oak Grove



STATION
— 1 3 0 0 —

Apartment courtyard



STATION
— 1 3 0 0 —

Central plaza and north office building



STATION
— 1 3 0 0 —

Oak Grove at Garwood

Exhibit E

Alma Station Public Benefits

Public Benefits	% of Cost of Public Benefit Attributed by City to Public Value	Cost of Public Benefit as % of Increased Project Profit
On-site		
Plazas	100%	22%
Coffee Kiosk	100%	19%
Electric Vehicle Charge	100%	3%
Total:		<hr/> 44%
Off-Site		
Contribution to Amenity Fund	100%	18%



July 6, 2016

Alex McIntyre
City Manager
City of Menlo Park
701 Laurel Street
Menlo Park, CA 94025

RE: Station 1300

Dear Alex:

As you know, Greenheart submitted a public benefit proposal for the Station 1300 Project to the City on January 27, 2016. The Planning Commission held a study session on that proposal on March 21st, and we received feedback at that time. We would now like to schedule a City Council study session about the Station 1300 public benefit proposal on July 19th in order to obtain input on that proposal.

Subsequent to the Planning Commission study session, we have concluded that it may be useful to enter into a development agreement with the City to document the Station 1300 Project's public benefit contribution and vest any project entitlements ultimately approved by the City. Therefore, in addition to the study session, we also request that the Council on July 19 appoint a City Council subcommittee to negotiate such a development agreement, to be brought back to the Council for discussion, presumably on August 30.

Please contact me if you have any questions about our public benefit proposal or the potential development agreement.

Best regards,

Greenheart Land Company

Robert M. Burke

Robert Burke,
Principal

cc: Steve Pierce
Tim Tosta

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Memorandum

To: Thomas Rogers, City of Menlo Park

From: Ron Golem, Stephanie Hagar, BAE

Date: March 14, 2016

Re: Financial modeling of public benefit bonus for potential 1300 El Camino Real project

Overview: Purpose of the Analysis

This memorandum presents the results of BAE's modeling of the value of a proposed horizontal mixed-use development project at 1300 El Camino Real in Menlo Park, which would utilize the public benefit program outlined in the El Camino Real / Downtown Specific Plan. This memorandum evaluates the potential developer profit from a project with the base entitlements versus one with a public benefit bonus. Based on the findings presented in this memorandum, BAE has prepared a separate memorandum to evaluate the developer's proposed public benefit contribution relative to the increase in value attributable to the public benefit bonus.

The potential project as conceived to date by the developer ("base project"), consistent with the base entitlements in the Specific Plan, would consist of a two-story office building of approximately 150,000 gross square feet with a parking structure behind it; and 137 rental residential units in a 3-story building above a podium structure that would contain parking. Approximately 15,000 square feet of retail would be provided between both buildings. The base project is not the developer's preferred option, and has not been designed in detail, other than what is needed to conduct this analysis.

The potential project with the public benefit bonus allowed by the Specific Plan ("bonus project") would place all parking in a two-level underground parking garage beneath the development. The site would then accommodate two three-story office buildings with approximately 218,000 gross square feet; and 182 rental residential units in a four-story building. Ground floor community serving uses would comprise approximately 7,900 square feet in the residential building and 10,700 to 21,100 square feet in the office building. The bonus project is the developer's preferred scenario, and has been currently the subject of more design work.

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Key Findings

Pro forma analysis was conducted to estimate the profit from the two alternative development programs, using information provided by the developer as well as BAE’s independent research and evaluation of development costs and market conditions (the pro formas are attached to this memorandum). Sensitivity analysis was also conducted to test how these findings might change based on changes in cost or market conditions. Key findings include:

- The bonus project would result in approximately \$78.2 million of profit to the developer (with development cost of \$275 million including land with carrying costs), compared to approximately \$71.9 million of profit for the base project (with development cost of \$200 million including land with carrying costs). This means that the bonus project realizes \$6.3 million in additional profits compared to the base project.
- Based on the pro forma assumptions, both projects are feasible, with the base project achieving a strong adjusted 43 percent return on total costs (a standard metric for return used by developers), and the bonus project achieving strong adjusted 30 percent return on costs).

Because development returns are sensitive to changes in project costs, interest rates, market rental rates and other factors, a sensitivity analysis of selected risk factors as conducted to identify how changes could impact the above findings. The results of this analysis are shown in the table below:

Sensitivity Analysis for Potential 1300 El Camino Real Project Profit (\$ millions)

Scenario	Base Project Profit	Bonus Project Profit	Profit Increase
BAE Estimate	\$71.9	\$78.2	+ \$6.3
Underground Parking Cost Shift			
10% Cost Increase	\$69.7	\$72.6	+\$2.9
Construction Hard Cost Shift			
10% Cost Increase	\$62.5	\$65.2	+\$2.7
Change in Capitalization Rate			
(Corresponds to Interest Rate Hike, Lower Project Value)			
0.25% Rise	\$59.1	\$61.5	+\$2.4
0.50% Rise	\$47.5	\$46.4	-\$1.1
Increase in Rental Rates			
5% rent increase	\$87.3	\$98.3	\$11.0

Source: BAE, 2015.

The sensitivity analysis shows that the estimate of \$6.3 million increase in profit from the bonus project falls within a range of potential outcomes from an increase in project profit of

\$0 million to \$11.0 million. All projects remain feasible, and generate an increase in value for the bonus project, except for a 0.5 percent increase in cap rates, which causes a decrease in value between the base and bonus project because the increase in project value no longer exceeds the increase in total project cost (the lower bound value for the value of the bonus is treated as \$0).

The cost of underground parking is a key factor because it is the most expensive way to provide parking (\$42,500 per space versus \$21,000 for above-ground parking structures), and it is necessary to fully take advantage of the public benefit bonus. Underground parking costs can vary substantially based on site geotechnical conditions.

Capitalization rates are used to estimate the value of income properties and move in tandem with changes in interest rates (capitalization rates are a measure of project net operating income relative to project value, since income is constant a rise in rates means a property is worth less). A significant increase in interest rates will make the finished project worth less, and shrink the profit from the bonus project.

Finally, local residential rental rates have spiked in the current cycle, and to avoid overstating potential rents they are based on the mid-range of rents in new local area high-end rental residential developments. Profit will increase if rents continue to rise and/or top of market rents can be realized.

Limiting Conditions

The above analysis is based on cost and valuation factors along with market rental rates provided by the potential developer and identified by BAE in its independent research during the Second Quarter of 2015. The project is in pre-development, and as design and development work proceeds it is possible that changes in design, building code requirements, construction costs, market conditions, interest rates, or other factors may result in significant changes in costs and profits. Depending upon these changes, the project as built may become more profitable, or could become less profitable or even infeasible. The figures in this analysis should not be relied upon beyond the next three month to six month period, and may be superseded before then.

For these initial findings, BAE used an estimate of land value based on partial property records. This land value represents a top of market estimate for development sites in Northern Santa Clara County, and is supported by the high office rents and residential rents that can be realized. To the extent that the actual cost of land for the project differs, it would change the total profit from the base or bonus project. However, because it is a fixed cost for both projects, it would not be expected to change the difference in profit between the base and bonus project.

The impact fee calculation does not include sewer connection fees because these are based on flow calculations that are not available at present. These, however, should be proportional between the base project and bonus project, and therefore should not substantially affect the calculation of the increase in profit for the bonus project.

Methodology

BAE met with City staff and the potential developer for 1300 El Camino Real to review the proposed site plan and development program and review the developer's assumptions regarding costs, rental rates, operating costs, capitalization rates, and other factors. BAE subsequently conducted independent research to verify these figures. This included interviews with area developers of office space and rental residential projects to confirm construction costs, operating costs, and capitalization rates. Confidential project cost information for other proposed projects under consideration by the City was reviewed. A review of cost figures for the appropriate construction types as published in the R.S. Means Company construction cost guides was conducted. Rental rates for comparable projects were researched for two recently built high-end rental residential projects in Mountain View (no recently built market rental residential projects in their initial lease up period were identified in Menlo Park or Palo Alto). Published reports on local market area capitalization rates were reviewed. Review of other assumptions, such as acceptable developer returns, was based on BAE's experience with other projects in the local market area.

This information was then used to prepare a project pro forma (projection) model for the base project and the bonus project. The pro formas consist of Excel worksheets that show assumptions for the development program, development costs, income, operating expenses, and financing costs. The worksheets then show the calculation of project cost by category, and an analysis of the value of the new development by component, and profit and return. The model is set up to calculate project profit as the residual value, by deducting total development costs (including land) from the market value of the completed project. To confirm feasibility, the "return on costs" was calculated (profit divided by total development costs excluding land); the current market range is between eight and 12 percent return on cost, depending upon the project type, local market condition, and overall project risk.

The pro forma models are attached to this memorandum, with the base project shown first, followed by the bonus project. Each model consists of two pages: the first page is a summary of development costs and the analysis of project value, profit and return; the second page contains all the assumptions used to calculate cost and return.

Key Assumptions

The pro formas set forth all assumptions used in the analysis. Following is a summary of key assumptions that were used for both models:

- The residential units mix includes studios, junior one-bedroom units, one-bedroom units, two-bedroom units, and a small number of three-bedroom units. Approximately two-thirds of the units are one-bedroom or two-bedroom units, reflecting market demand.
- Unit sizes range from 535 square feet for junior one-bedroom units, to 713 square feet for one-bedroom units, to 1,096 square feet for two-bedroom units, to 1,549 square feet for the three-bedroom units.
- Monthly rental rates range from \$3,300 for a junior one-bedroom unit, to \$3,600 for a one-bedroom unit, to \$4,300 for a two-bedroom unit, to \$6,200 for the three-bedroom units.
- Below market-rate (BMR) units are included pursuant to the City's BMR requirements for commercial development. Rental rates for the BMR units are assumed per City policy, and range from \$1,643 for a studio or junior one-bedroom unit, to \$1,878 for a one-bedroom unit, to \$2,113 for a two-bedroom unit.
- Rental rates for the office space are assumed to be \$66 per square foot per year, triple-net. The rental rate for retail space is assumed to be \$36 per square foot per year, triple-net, reflecting locations that are not as directly accessible to El Camino Real as other retail.
- Hard construction costs range between \$240 per square foot for commercial to \$250 per square foot for the residential. By comparison, the residential construction cost is approximately one-third higher than a standard multifamily project, reflecting a much higher quality of design and greater building amenities.
- Parking hard costs range, on a per space basis, from \$21,000 for structured spaces and \$31,000 for podium spaces in the base project, to \$42,500 per space for underground parking in the bonus project.
- All City impact fees were calculated and included, except for the sewer connection fee (as noted in the limiting conditions section of this memorandum).

Development Program Assumptions				Cost and Income Assumptions			
Characteristics of Project				Development Costs			
Site - gross acres / square feet (sf)	7.11	309,712		Demolition costs, per site sf			\$2.42
Site area net of Garwood Ave - acres / sf	6.43	280,091		Environmental remediation cost, per site sf			\$10.33
Garwood Way extension, sf		42,100		On-site utilities and landscaping, per site sf			\$25.18
Office rentable area, sf		149,380		Construction hard costs, per sf - resid/office/retail	\$250	\$240	\$240
Retail gross leasable area, sf		14,550		Road construction - Garwood Ave, per sf of road			\$64
Dwelling units (du)		137		Off site utility construction cost			\$750,000
Jr 1 bedroom - number / average size	17	535		Appliance costs, per du			\$4,000
1 bedroom - number / average size	52	713		Impact fees (b)			\$3,846,453
2 bedroom - number / average size	55	1,096		Tenant improvements, per sf of office / retail		\$60	\$50
3 Bedroom - number / average size	5	1,549		Soft costs, % of hard costs			20%
BMR Jr 1 bedroom - number / average size	1	535		Parking construction cost, per space:			
BMR 1 bedroom - number / average size	3	713		Surface parking cost, per space			N/A (c)
BMR 2 bedroom - number / average size	4	1,096		Above-grade garage spaces			\$21,000
Parking:				Podium parking spaces			\$31,000
Surface parking spaces		25		Underground parking spaces			\$42,500
Above-grade garage spaces		586		Developer fee % of total project costs			0%
Podium parking spaces		170					
Underground parking spaces		—		Revenues and Operating Expenses			
Total parking spaces		781		Office rental rate, sf/yr, NNN			\$66.00
Common area sf - residential / office / retail (a)	17,746	4,620	450	Retail rental rate, sf/yr, NNN			\$36.00
Total sf - residential / office / retail	139,000	154,000	15,000	Residential rental rate per du/mo:			
Dwelling units/acre		21		Jr 1 bedroom			\$3,300
				1 bedroom			\$3,600
				2 bedroom			\$4,300
				3 Bedroom			\$6,200
				BMR Jr 1 bedroom			\$1,643
				BMR 1 bedroom			\$1,878
				BMR 2 bedroom			\$2,113
				Annual op. cost - per du / per office sf / per retail sf	\$11,000	\$1.80	\$1.80
				Vacancy rate - residential / office / retail	5%	5%	5%
Notes				Financing			
(a) Common area % resid'l / office / retail:	12.8%	3%	3%	Construction loan to cost ratio			70%
(b) Includes the following impact fees City impact fee schedule: Storm Drainage Connection Fee, Building Construction Road Impact Fee, Water Capital Facilities Charge, Traffic Impact Fee, ECR/Downtown Specific Plan Preparation Fee, Supplemental Transportation Impact Fee, Sequoia Union High School District Impact Fees, Menlo Park City Elementary School District Impact Fee. Fee calculation per report. Excludes sewer connection fee, pending flow calculations. Supplemental Transportation Impact Fee estimated pending calculations from City.				Loan fees (points)			2%
(c) Cost of surface parking is included in site development costs.				Interest rate			5.5%
(d) Estimate by BAE based on review of recorded sales data for parcels comprising the project site.				Construction period (months)			14
(e) Consists of property tax payments on half of the property between March 2012 and June 2015 and property tax on the remaining half of the property between Dec. 2012 and August 2015 at \$21,800 per month.				Drawdown factor			60%
(f) Adjusted to include 5% developer fee separate from investor return, even though unlike most developers, applicant does not collect this.				Total hard + soft construction costs			\$144,665,253
				Total loan amount			\$101,265,677
				Capitalization Rate - Residential / Office / Retail	4.25%	5.75%	6.00%

Source: BAE, 2015.

Development Costs		Value Analysis	
Development Costs (Excludes Land)		Projected Income	
Demolition costs	\$750,000	Residential	
Environmental remediation cost	\$3,200,000	Gross scheduled rents	\$6,318,348
On-site utilities and landscaping	\$7,800,000	Less vacancy	(\$315,917)
Residential construction costs	\$35,298,000	Gross annual rents	\$6,002,431
Office construction costs	\$36,960,000	Less operating expenses	(\$1,507,000)
Retail construction costs	\$3,600,000	Net operating income (NOI)	\$4,495,431
Garwood Ave construction costs	\$2,685,000	Office	
Off site utility construction cost	\$750,000	Gross scheduled rents	\$9,859,080
Tenant improvements	\$8,730,000	Less vacancy	(\$492,954)
Parking costs	\$17,576,000	Gross annual rents	\$9,366,126
Soft costs	\$23,469,800	Less operating expenses	(\$277,200)
Impact fees	<u>\$3,846,453</u>	Net operating income (NOI)	\$9,088,926
Total construction costs	\$144,665,253	Retail	
Total cost, per rentable sf	\$470	Gross scheduled rents	\$523,800
Interest on construction loan	\$3,898,729	Less vacancy	(\$26,190)
Points on construction loan	<u>\$2,025,314</u>	Gross annual rents	\$497,610
Total financing costs	\$5,924,042	Less operating expenses	(\$27,000)
		Net operating income (NOI)	\$470,610
Total development costs	\$150,589,295	Total net operating income	\$14,054,967
		Development Feasibility	
		Capitalized value	\$271,686,616
		Less development costs	(\$150,589,295)
		Less land cost - estimate (d)	(\$47,637,500)
		Less Property taxes during holding period (e)	(\$1,591,400)
		Project profit	\$71,868,421
		Adjusted return as % of hard cost (f)	43%

Pro Forma for Mixed-Use Development with Public Benefit Bonus per Specific Plan

Proposed Project at 1300 El Camino Real, Menlo Park CA

ADMIN DRAFT

Development Program Assumptions				Cost and Income Assumptions			
Characteristics of Project				Development Costs			
Site - gross acres / square feet (sf)	7.11	309,712		Demolition costs, per site sf			\$2.42
Site area net of Garwood Ave - acres / sf	6.43	280,091		Environmental remediation cost, per site sf			\$10.33
Garwood Way extension, sf		42,100		On-site utilities and landscaping, per site sf			\$25.18
Office rentable area, sf		188,277		Construction hard costs, per sf - resid/office/retail	\$250	\$240	\$240
Retail gross leasable area, sf		23,086		Road construction - Garwood Ave, per sf of road			\$64
Dwelling units (du)		182		Off site utility construction cost			\$750,000
Jr 1 bedroom - number / average size	22	535		Appliance costs, per du			\$4,000
1 bedroom - number / average size	68	713		Impact fees (c)			\$5,272,860
2 bedroom - number / average size	75	1,096		Tenant improvements, per sf of office / retail		\$60	\$50
3 Bedroom - number / average size	7	1,549		Soft costs, % of hard costs			20%
BMR Jr 1 bedroom - number / average size	1	535		Parking construction cost, per space:			
BMR 1 bedroom - number / average size	4	713		Surface parking cost, per space			N/A (d)
BMR 2 bedroom - number / average size	5	1,096		Above-grade garage spaces			\$21,000
Parking:				Podium parking spaces			\$31,000
Surface parking spaces		50		Underground parking spaces			\$42,500
Above-grade garage spaces		-		Developer fee % of total project costs			0%
Podium parking spaces		-					
Underground parking spaces		<u>1,036</u>		Revenues and Operating Expenses			
Total parking spaces		1,086		Office rental rate, sf/yr, NNN			\$66.00
Common area sf - residential / office / retail (a)	39,936	5,823	714	Retail rental rate, sf/yr, NNN			\$36.00
Total sf - residential / office / retail (b)	202,100	194,100	23,800	Residential rental rate per du/mo:			
Dwelling units/acre		28		Jr 1 bedroom			\$3,300
				1 bedroom			\$3,600
				2 bedroom			\$4,300
				3 Bedroom			\$6,200
				BMR Jr 1 bedroom			\$1,643
				BMR 1 bedroom			\$1,878
				BMR 2 bedroom			\$2,113
				Annual op. cost - per du / per office sf / per retail sf	\$11,000	\$1.80	\$1.80
				Vacancy rate - residential / office / retail	5%	5%	5%
Notes				Financing			
(a) Common area % resid'l / office / retail:	19.8%	3%	3%	Construction loan to cost ratio			70%
(b) Retail sf based on 7,900 sf of community serving uses in the residential building and 10,700 - 21,100 sf of retail space in the office building. The analysis uses the midpoint of the range of potential retail sf in the office space.				Loan fees (points)			2%
(c) Includes the following impact fees City impact fee schedule: Storm Drainage Connection Fee, Building Construction Road Impact Fee, Water Capital Facilities Charge, Traffic Impact Fee, ECR/Downtown Specific Plan Preparation Fee, Supplemental Transportation Impact Fee, Sequoia Union High School District Impact Fees, Menlo Park City Elementary School District Impact Fee. Fee calculation per report. Excludes sewer connection fee, pending flow calculations. Supplemental Transportation Impact Fee per estimates from City.				Interest rate			5.5%
(d) Cost of surface parking is included in site development costs.				Construction period (months)			21
(e) Estimate by BAE based on review of recorded sales data for parcels comprising the project site.				Drawdown factor			60%
(f) Consists of property tax payments on half of the property between March 2012 and June 2015 and property tax on the remaining half of the property between Dec. 2012 and August 2015 at \$21,800 per month.				Total hard + soft construction costs			\$214,078,341
(g) Adjusted to include 5% developer fee separate from investor return, even though unlike most developers, applicant does not collect this.				Total loan amount			\$149,854,839
				Capitalization Rate - Residential / Office / Retail	4.25%	5.75%	6.00%

Source: BAE, 2015.

Pro Forma for Mixed-Use Development with Public Benefit Bonus per Specific Plan

Proposed Project at 1300 El Camino Real, Menlo Park CA

ADMIN DRAFT

Development Costs		Value Analysis	
Development Costs (Excludes Land)		Projected Income	
Demolition costs	\$750,000	Residential	
Environmental remediation cost	\$3,200,000	Gross scheduled rents	\$8,436,240
On-site utilities and landscaping	\$7,800,000	Less vacancy	<u>(\$421,812)</u>
Residential construction costs	\$51,253,000	Gross annual rents	\$8,014,428
Office construction costs	\$46,584,000	Less operating expenses	<u>(\$2,002,000)</u>
Retail construction costs	\$5,712,000	Net operating income (NOI)	\$6,012,428
Garwood Ave construction costs	\$2,685,000		
Off site utility construction cost	\$750,000	Office	
Tenant improvements	\$11,240,568	Gross scheduled rents	\$12,426,282
Parking costs	\$44,030,000	Less vacancy	<u>(\$621,314)</u>
Soft costs	\$34,800,914	Gross annual rents	\$11,804,968
Impact fees	<u>\$5,272,860</u>	Less operating expenses	<u>(\$349,380)</u>
Total construction costs	\$214,078,341	Net operating income (NOI)	\$11,455,588
Total cost, per rentable sf	\$510		
Interest on construction loan	\$8,654,117	Retail	
Points on construction loan	<u>\$2,997,097</u>	Gross scheduled rents	\$831,096
Total financing costs	\$11,651,214	Less vacancy	<u>(\$41,555)</u>
		Gross annual rents	\$789,541
		Less operating expenses	<u>(\$42,840)</u>
		Net operating income (NOI)	\$746,701
Total development costs	\$225,729,555		
		Total net operating income	\$18,214,717
		Development Feasibility	
		Capitalized value	\$353,141,530
		Less development costs	<u>(\$225,729,555)</u>
		Less land cost - estimate (e)	<u>(\$47,637,500)</u>
		Less Property taxes during holding period (f)	<u>(\$1,591,400)</u>
		Project profit	\$78,183,075
		Adjusted return as % of hard cost (g)	30%

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Memorandum

To: Thomas Rogers, City of Menlo Park

From: Stephanie Hagar, BAE

Date: March 14, 2016

Re: Evaluation of proposed public benefit for 1300 El Camino Real (Station 1300) project

This memorandum presents an evaluation of the proposed public benefit contribution for Station 1300, a development project at 1300 El Camino Real in Menlo Park. The site is in a location eligible for a public benefit bonus pursuant to the Specific Plan, which establishes the formula for the additional built area that is allowed in return for public benefits acceptable to the City. This memorandum builds on BAE's separate analysis modeling the increase in value of the project due to the increase in density from the public benefit bonus.

The public benefit bonus program outlined in the Specific Plan anticipates that public benefits provided pursuant to the program can take the form of on-site improvements, offsite improvements, monetary payment to the City for future use toward public improvements, or a mixture. The developer is proposing to provide a monetary contribution to the City.

Development Proposal

The potential project with the public benefit bonus allowed by the Specific Plan ("bonus project") would place all parking in a two-level underground parking garage beneath the development. The site would then accommodate two three-story office buildings with approximately 218,000 gross square feet; and 182 rental residential units in a four-story building. Ground floor community serving uses would comprise approximately 7,900 square feet in the residential building and 10,700 to 21,100 square feet in the office building. The bonus project is the developer's preferred scenario, and has been the subject of more design work. The developer's proposed public development contribution is a one-time \$2.1 million monetary payment to the City.

The potential alternate base-level project as conceived to date by the developer ("base project") would consist of a two-story office building of approximately 150,000 gross square feet with a parking structure behind it; and 137 rental residential units in a 3-story building above a podium structure that would contain parking. Approximately 15,000 square feet of retail would be provided between both buildings. The base project is not the developer's

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New York City

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New York, NY 10001
212.683.4486

preferred option, and has not been designed in detail, other than what is needed to conduct this analysis.

Summary of Pro Forma Findings

BAE conducted a pro forma analysis to estimate the profit from the two alternative development programs, using information provided by the developer as well as BAE's independent research and evaluation of development costs and market conditions. The full pro forma analysis, methodology, and assumptions are detailed in a separate memorandum. Key findings include:

- The bonus project would result in approximately \$78.2 million of profit to the developer (with development cost of \$275 million including land with carrying costs), compared to approximately \$71.9 million of profit for the base project (with development cost of \$200 million including land with carrying costs). This means that the bonus project realizes \$6.3 million in additional profits compared to the base project.
- Based on the pro forma assumptions, both projects are feasible, with the base project achieving a strong adjusted 43 percent return on total costs (a standard metric for return used by developers), and the bonus project achieving strong adjusted 30 percent return on costs).

Evaluation of Proposed Public Benefit Contribution

Jurisdictions use a variety of metrics to establish the desired value of the public benefit contributions that developers provide in exchange for additional density. Many of these metrics base the value of the contribution on the difference in value between a project developed at the base level density and a project developed at the community benefit level density, either on a project-by-project basis according the specifics of individual projects, or on a more generalized basis using an analysis of project prototypes. The value of the community development contribution is typically expected to total some share of that difference. Possible methods for determining the value of the contribution based on this type of analysis include:

- Negotiation: On a project-by project basis, the City negotiates with the developer to determine the benefit contribution. This is the method that the City of Menlo Park currently uses to assess developer contributions for projects seeking the public benefit density in the Specific Plan area. The City has also undertaken this type of negotiation for projects in other areas, when a Development Agreement is proposed.
- Flat dollar charge per square foot: Developers are assessed a flat fee (e.g., \$20) per square foot of development in excess of the base level density. The fee rate is determined based on analysis of prototype projects and the same fee rate applies to all projects.

- Charge based on percent of value: Developers are assessed a fee based on a percent of the difference in value between the base level density and the community benefit level density, as assessed on a project-by-project basis.

A fourth potential metric to determine the desired value of a public benefit contribution could be based on the value of land, expressed as the land cost per square foot of building area (i.e., the cost per FAR-foot) under the base level density. For example, a 10,000 square foot site with a base level FAR of 1.1 allows for a total of 11,000 square feet of built area at the base level. If the land cost is \$1.65 million, the cost per FAR-foot would be \$150 (\$1.65 million/11,000 of buildable area). Using this method, the value of the public benefit contribution would total a portion of the FAR-foot land cost for square footage that exceeds the base level density. For example, if the FAR-foot value is \$150, the value of the public benefit contribution to the City might be \$75 per square foot of development that exceeds the base level density.

During the public benefit bonus review for some initial project proposals, there were individual Planning Commissioner suggestions that Menlo Park consider the FAR-foot value of new development when evaluating community benefits contributions provided under the Specific Plan. Under such a proposal, the Planning Commission could use the methodology described above as one metric to assess the appropriateness of proposed public benefits contributions. It can be noted that this type of analysis may not accurately account for non-linear costs, such as a taller development needing a different construction type, or a larger project featuring more expensive underground parking instead of cheaper above-ground parking. These issues in valuation, however, can be addressed through an appraisal process that utilizes comparable land sales for projects with similar characteristics.

Although no jurisdictions in California have implemented a FAR-foot method for evaluating public benefit contributions, this method has been adopted and considered by jurisdictions elsewhere. For example, the City of Chicago allows additional square footage in some zoning districts in exchange for either on-site affordable units or by making a monetary contribution to the City's Affordable Housing Opportunity Fund. The amount of the financial contribution is equal to the bonus floor area multiplied by 80 percent of the median land price per base FAR-foot in the submarket where the proposed development is located. A January 2014 report for the City of Toronto recommended that the City value community benefits contributions based on a percent of the appraised land value per square meter of buildable floor area, but the City has not yet adopted this method.

Station 1300 Proposed Public Benefit Contribution

The developer's proposed public benefits contribution for Station 1300 is a \$2.1 million monetary payment to the City. In addition, the developer has cited several non-monetary benefits of the project, but is not asking that the City consider these benefits as part of the developer's public benefit contribution. These additional benefits as identified by the

developer include an extension of Garwood Way through the project site, an improved streetscape along El Camino Real, 10 below-market-rate residential units, and three plazas and a park that would be open to the public.

Comparison to Sample Jurisdictions

Table 1 below shows the developer’s proposed monetary contribution for Station 1300, expressed in terms of each of the four methods outlined above for determining the desired value of public benefit contributions. The table also shows a comparison to rates established in a sample of other California jurisdictions.

This analysis shows that the proposed contribution is generally consistent with fee rates that are charged on a per-square foot basis, but lower than the rates established based on a percent of the increase in value. The developer’s contribution totals \$19 per square foot for the square footage that exceeds the base level density. This is slightly lower than the charge per square foot in Mountain View and the charge per square foot for commercial development in the San Francisco Eastern Neighborhoods Plan Area, but slightly higher than the charge per square foot in San Diego and the charge per square foot of residential uses in the San Francisco Eastern Neighborhoods Plan Area. The developer’s contribution totals 33 percent of the increase in project value attributable to the public benefit bonus, lower than the rate charged in Culver City and lower than the proposed rate for San Francisco’s Central SOMA Plan.

Table 1: Comparison of Proposed Benefit to Rates Charged in a Sample of California Cities with Public or Community Benefits Programs

Method for Determining Benefit Value	Value of Proposed Benefit for Station 1300 (a)	Comparison Jurisdictions	Comparison Jurisdiction Rate
Negotiation	N/A	Menlo Park (El Camino Real / Downtown Specific Plan)	N/A
		Palo Alto	
		Berkeley (Downtown Specific Plan) (b)	
		Santa Monica	
Flat fee per sq. ft. of increment	\$19	Mountain View (El Camino Real Precise Plan, San Antonio Precise Plan)	\$20
		San Diego (select areas in Downtown) (c)	\$17
		San Francisco (Eastern Neighborhoods) (d)	Residential: \$12 - \$16 Commercial: \$20 - \$24 Additional inclusionary requirements also apply
Percent of Value of Increment	33%	Culver City	50%
		San Francisco (Central SOMA Plan) (e)	66%-75% (proposed)
		Cupertino Investigated; has not been adopted	N/A
Percent of Land Value per FAR-foot	12%	N/A	N/A

Notes:

- (a) Calculations for Station 1300 are based on the assumptions and site characteristics shown in Table 3.
- (b) Berkeley is considering a proposal to allow developers to choose to either include benefits related to affordable housing, labor, and other benefits from a menu of options or to pay a flat fee. The flat fee rate has not been determined.
- (c) Rate shown is an estimate; fee was set at \$15 per square foot in 2007 and inflated annually based on CPI. Developers can also provide benefits directly in exchange for increase in FAR.
- (d) San Francisco uses a tiered approach, with lower fees for a 1- to 2-story increase in height and higher fees for a 3-story increase in height.
- (e) Basis for valuing Community Benefits contributions for the Central SOMA Plan is still under consideration. A recent presentation by the City's Planning Department used the rates shown in the table as a target (see http://www.sf-planning.org/ftp/files/Citywide/Central_Corridor/20150625_Central_SoMa_Presentation_Final.pdf)

Comparison to Sample Projects with Negotiated Public Benefits

Table 2 shows the proposed public benefit for Station 1300 compared to the monetary contribution proposed for two other projects with negotiated public benefits, based on the three quantified methods described above (i.e., per square foot charge, percent of value increment, and FAR-foot methods). The first comparison project is 1020 Alma Street in the Specific Plan Area, which was recently approved by the Menlo Park Planning Commission. The public benefits contribution from this project consisted of a one-time payment of \$185,816 and public plaza spaces, one of which will include a coffee kiosk. The second comparison project is currently under review in Berkeley at 2211 Harold Way. While Berkeley currently negotiates community benefits in the Downtown Specific Plan Area, the Berkeley City Council is evaluating more formulaic approaches to assessing community benefits contributions. For projects currently in the pipeline, including the project at Harold Way, the City Council has

proposed a fee rate of \$100 per square foot for square footage between 75 and 120 feet in height and \$150 per square foot for square footage that exceeds 120 feet in height.

The proposed contribution for Station 1300 is generally consistent with the contribution provided by the developer of the project at 1020 Alma Street in Menlo Park. While the proposed contribution for Station 1300 is lower than the contribution for 1020 Alma on a per-square foot basis, the proposed contribution is similar if calculated based a percent of the FAR-foot value and higher if calculated based on a percent of the increase in value from the public benefit bonus. The proposed public benefit contribution for Station 1300 would be lower than the contribution for 1020 Alma after accounting for the non-monetary public benefit contributions from the 1020 Alma project. However, Station 1300 will provide similar public benefits in the form of plazas and a park that will be accessible to the public.

On a per-square foot basis, the proposed contribution for Station 1300 is considerably lower than the proposed per-square foot charge for 2211 Harold Way in Berkeley. In considering the proposed fee rates for the project on Harold Way, the City Council noted that these rates may be higher than in any other city in California. In addition, the fee for the project at Harold Way would permit the construction of 45 additional feet in height, which could be considered a fundamentally different project concession than the Specific Plan's FAR increase.

Table 2: Monetary Public Benefit Contributions from Projects with Negotiated Public Benefits

Method for Determining Benefit Value	Value of Proposed Benefit for Station 1300	1020 Alma St, Menlo Park	2211 Harold Way, Berkeley
Monetary Public Benefit Contribution	\$2,100,000	\$185,816	Unknown
\$ per sq. ft. of increment	\$19	\$32	\$100 from 75' to 120' in building height; \$150 above 120'.
Percent of Value of Increment	33%	18%	Unknown
Percent of Land Value per FAR-foot	12%	12%	Not applicable; site does not have a maximum FAR.
Comments	Calculations are based on the assumptions and site characteristics shown in Table 3. The developer has noted that the project will include additional non-monetary public benefits, but is not asking that these be considered as part of the public benefit contribution.	In addition to the monetary contribution shown in this table, the public benefit contribution for the project at 1020 Alma Street includes public plaza space and a coffee kiosk. Land value estimated based on the net present value of the ground lease.	Fee rate shown is still under consideration. Project will provide additional non-monetary community benefits.

Key Assumptions

Key assumptions and project and site characteristics incorporated into the preceding analysis are as shown in the following table.

Table 3: Station 1300 Project Characteristics

Selected Project Characteristics	Station 1300
Base level FAR	1.1
Site size (sq. ft.)	280,091
Allowable square footage at base FAR	308,100
Bonus level project size (sq. ft.)	420,000
Square footage above base level FAR	111,900
Land Cost	\$47,637,500
Land Value per FAR-foot (at base level FAR)	\$155
Additional value from Public Benefit Bonus	\$6,314,654
Proposed monetary Public Benefit contribution	\$2,100,000

Note:

Site square footage for Station 1300 excludes the land used to extend Garwood Way. Land cost estimated based on BAE review of public records.

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REGULAR MEETING MINUTES - EXCERPTS

Date: 3/21/2016
Time: 7:00 p.m.
City Council Chambers
701 Laurel St., Menlo Park, CA 94025

A. Call To Order

Chair John Onken called the meeting to order at 7:00 p.m.

B. Roll Call

Present: Andrew Combs, Katie Ferrick, John Kadvany, Larry Kahle, John Onken (Chair), Katherine Strehl (Vice Chair - arrived 7:30 p.m.)

Absent: Susan Goodhue

Staff: Thomas Rogers, Principal Planner, Kyle Perata, Senior Planner, Michele Morris, Assistant Planner

G. Study Session

G1. Study Session/Greenheart Land Company/Station 1300 Project (1258-1300 El Camino Real, 550-580 Oak Grove Avenue, and 540-570 Derry Lane)

Study session to receive comments on the Station 1300 proposal (also known as the 1300 El Camino Real project) to redevelop a multi-acre site on El Camino Real and Oak Grove Avenue with up to 217,000 square feet of non-residential uses and up to 202 dwelling units. The study session will allow Planning Commissioners and the public to provide feedback on the overall project, including the proposed Public Benefit ([Staff Report #16-022-PC](#)).

Staff Comment: Principal Planner Rogers said the Commission was asked to particularly comment on public benefit bonus in addition to the typical elements considered in a study session. He said the City has done the public benefit bonus proposal process fully for two project applications: the Marriott Residence Inn that converted a former senior retirement living community that was a change in use requiring Planning Commission review and City Council approval; and the 1020 Alma Street project. He said the public benefit for the hotel project was the inherent transient occupancy tax (TOT) that recurs annually and for the 1020 Alma Street office project it was a one-time payment to the City and provision of an active public plaza with retail and café use.

Principal Planner Rogers said a financial analysis was prepared by Bay Area Economics (BAE) for this proposed project. He said the report projected approximately \$6.3 million in extra profit for the bonus density based on current rents, construction costs and other factors. He said the applicant has proposed a public benefit to the City that would consist of a one-time payment of \$2.1 million. He said BAE in another memo looked at land value and if the development was limited to the base level how much extra land would need to be purchased to accommodate the additional square

footage being requested. He noted that related to a prior Commission discussion about public benefit and determining value. He asked the Commission during its comment period to address whether the proposed public benefit was on the right track. He said if the public benefit being proposed was completely unacceptable that the applicant would have to reconsider the project proposal.

Applicant Presentation: Mr. Steve Pierce, principal, Greenheart Land Company, introduced his colleague Bob Burke. He said they wanted the project to be in total conformance with the Specific Plan and to follow through with the Plan's visions and goals; for it to be as environmentally sensitive as possible; and to create something that would be a great asset to the community. He said beyond a beautiful building they wanted to create a place where people would go and interact. He said to do that they needed reasons for people to come to the site or activity magnets, which were restaurants, shops, and recreational opportunities. He said the place had to be welcoming and comfortable so that once people came there they would like to spend time there. He said they needed open space to accomplish those goals.

Mr. Bob Burke, principal, Greenheart Land Company, said the project was two, three-story office buildings on El Camino Real. He said one of their goals was to provide more space as their businesses grew to incubator companies currently using their property on Willow Road. He said in 2014 for the Environmental Impact Review (EIR) they were asked how many apartments were planned. He said they posited 202 units as the high number for the purposes of the EIR, but with plan design they settled on 182 units, which number because of the stairwell, probably was now 181 units. He said the four-story residential building was the same height as the office buildings. He said the units were rental with half of the units being 900 square foot one-bedroom units, and there would be 10 below market rate units. He said community services use included retail, food, restaurants, and personal services such as a salon and/or pilates studio. He said that with their underground parking they would have 48% open space which was double the requirement under the Specific Plan. He said there would be an amphitheatre and Garwood Park with numerous amenities. Toward lessening traffic congestion, he said that two ingress/egress points on Garwood and one on El Camino Real were planned and apartment tenants and workers would pay for their parking spaces. He said their TDM plan was aggressive with GoPasses for Caltrain and Zipcars on site. He said they were working on Bike Share which was not yet available in Menlo Park. He said they have one-to-one bicycle storage for the apartments and double what was required for secure bicycle storage in the office buildings. He said there would be bicycle repair stops, showers in the office buildings, and electric bikes for the apartment dwellers. He said the Facebook and Marguerite shuttle would stop at or close to this location. He said they were also very focused on sustainability and were seeking LEED Gold for the apartments and LEED Platinum for the office buildings and going for net zero. He said there was not enough roof space on the apartment buildings for those buildings to be net zero. He said additionally toward net zero they would use a geo-thermal system. He then showed a video of the proposed Station 1300 project.

Mr. Pierce said regarding public benefit that there was intrinsic benefit in taking a derelict property and developing it into productive use. He said explicit benefit was what they would do to achieve the bonus density. He said a goal of the Specific Plan was to create residential opportunities and with the bonus density they were able build 50 more units. He said with the bonus density, the project would generate about \$1.7 million a year for schools and at base development level about 50% less. He said the City engaged an outside consultant to look at the costs as well as the revenues and with the increased square forage arrived at a value of \$6.3 million. He said a major part of that metric was the underground garage which would cost \$26 million. He said having

underground parking allowed for more open space and enabled them to reach their goal of creating more community resources. He said to identify public benefits they polled many people and looked at the list in the Specific Plan. He said they had as example the Alma Street project whose public benefit was a public plaza fenced off from the private plaza, a community resource in the form of a coffee kiosk, as well as a contribution to the downtown amenity fund that represented 18% of the additional value created by the additional square footage. He said they were proposing to contribute \$2.1 to the public amenity fund and in talking to people they did not think they should be the arbitrators of where the money should go. He said regarding plazas and open spaces they did not want to create a private and a public space rather a central square that could be used by everybody. He said that was possible because of the underground parking and it would cost them about \$2 million to do the open space areas. He said they had up to 30,000 square feet for hopefully two anchor restaurants and other shops. He said the rent for those would be half what the office use rent would be and noted that retail required more parking than office. He said their public benefit proposal was the \$2.1 million and the open space and public resources they would provide.

Public Comment:

- Patti Fry said this project was on the busiest stretch of El Camino Real, would bring the worst impacts to traffic and did not provide enough residential as targeted by the Specific Plan. She said the Derry Project, which was smaller than this, had offered a public benefit of \$2 million. She said the intrinsic benefits were vague and assurances needed to be made regarding those. She said office buildings were dead space and did not create vibrancy.
- Mr. Viera said he was with Local Carpenter's Union 217 representing 1,451 carpenters in San Mateo County. He said they oppose the project as Greenheart Land Company continues to use W. L. Butler as their contractor, who fails to require its subcontractors to pay standard carpenter wages and benefits on projects and for whom they don't require state licensure.
- Skip Hilton said he was a Menlo Park resident and a tech employee. He commended the applicants for extensive community outreach. He said the project is in a prime place for transit oriented residential and business. He said the 48% open space was possible because of the underground parking. He said this development would add to the City's vibrancy. He complimented the project for its sustainability and said he supported the project.

Chair Onken closed the public comment period.

Commission Comment: Chair Onken said he thought prior Planning Commission discussions about public benefit seemed evident in what was being proposed. He asked about the Garwood parking for the Marriott Residence Inn project. Principal Planner Rogers said that project with its approval received a formal license agreement with the City for the use of those parking spaces. He said at that time the Council and Commission were aware that something was proposed on this subject property and that Garwood Way would be extended if a project went through like this one, and that some contingencies had been built into the approval. He said he recalled that the Marriott owner was encouraged to work with any redevelopment on this site for relocating those parking spaces. He said the City however could not necessarily require an owner to negotiate in a certain way with another private property. He said there was an allowance for what the City would need to see if there was not such an agreement. He said he believed if the hotel met certain revenue

targets they would not need to pay extra rent for those spaces but if they fell below standards they would. He said this project could not make those spaces go away as it was public right-of-way.

Commissioner Kadwany complimented the BAE analysis. He said the proposed project was great and would be even greater as it moved along and transformed. He said the project met many of the Specific Plan goals but he encouraged the applicants to look critically toward meeting even more, noting that the Alma Street project was much different from this project. He said it appeared that most of the use of the open spaces would be by the tenants of the surrounding offices and apartments. He said the project should get some credit for the open space but the cost of doing the plaza and park was not really a benefit for the City. He said the estimated \$6.3 million value was a conservative amount. He said rather than \$2.1 million public benefit he thought \$3 even \$4 million was more realistic. He said the number of residential units was the same as it would be at the base level.

Chair Onken said if they wanted to be aggressive about the residential, more units could be added in the area designated as Garwood Park. He said it was a tradeoff of wanting more density.

Commissioner Combs said if residential was increased above the 202 units studied in the EIR they would have to modify the EIR. He said he met with people from Greenheart Land Company noting that he has met with other applicants and people regarding projects upon request in the past. He asked what the applicant's obligation was with how the space was built out and how it would actually be used.

Principal Planner Rogers said the project was at the public bonus level and allowed discretion whether the project was providing public benefit to the City. He said land use could be part of that discussion. He said one of the themes of the Specific Plan was clustering restaurants and retail in the downtown and from that looking at uses that support the downtown core. He said once the project was out of the downtown and on El Camino Real there were no requirements for base line level for retail restaurant and personal services.

Chair Onken asked about uses under community services. Principal Planner Rogers said under the defined uses that businesses could change without Planning Commission or other review. He said conditional and different uses would require discretionary or administrative review depending upon the proposed use. He noted that there was an allowance for a real estate office within the community services portion of the project for the property owner's use and that square footage was captured in the overall office square footage.

Commissioner Strehl said she also met with representatives of Greenheart Land Company and has met with other project developers in the past when requested. She said the BAE report seemed to indicate that the developer would get a 40% return on a base level project but for the public benefit bonus level they would only get a 30% return. She said there were things the developer was doing that were not being calculated in any of the discussion and that was the \$6 million in improvements that would be made. She said public benefit should be looked at more broadly. She said she thought Garwood Park over time would be an attraction to residents in Menlo Park particularly if the community services attracted people beyond the apartments and office buildings. She said she thought it was going to be an incredibly handsome development. She said she was not sure what the right number was for the public benefit cash amount but she felt they had to recognize that the applicant was assuming a lot of risk in this project. She said

there should be a certain amount of reward for this assumed risk so the applicant would actually made money. She said without the public benefit bonus the project would not be as handsome and she did not think as many community amenities could be provided. She said their transportation measures and roadwork to make this development work were outstanding and they were not asking for credit for any of that. She said they had to look more broadly than just the \$2.1 million in how they calculate public benefit.

Commissioner Kahle said he had also met with the applicant. He said he thought it was going to be a really nice project. He said related to Commissioner Kadvany's comments about the central plaza surrounded by office buildings that he too thought it would serve those uses primarily and questioned particularly who would use it at night. He said perhaps there was a way to make this more of a mixed-used plaza as well with residential use. He said regarding a one-time payment of \$2.1 million he suggested they request 50% of the \$6.3 million as a starting point for negotiations.

Commissioner Ferrick said the design and overall composition were exceptional and vastly exceeded the template of what it could be in the Specific Plan. She said there were a balance of uses and suggested that the sustainability features beyond LEED Silver should be considered as public benefit. She agreed with Commissioner Kadvany that they should continue to look at public benefit and suggested that there might be more below market rate housing units, which she would like provided at a 10% rate. She said the TDM plan was exceptional. She said previously they had identified an undercrossing at Middle Avenue as a priority item and suggested that might be a consideration for public benefit. She said the greater public benefit was the open space on the project as well as the underground parking. She said regarding the community service businesses that she agreed with Ms. Fry's comments that more specificity about the mix of uses was important. She said the way to activate the central plaza would be to extend the community services into that space.

Chair Onken suggested looking at the net loss for another below market rate unit and to consider funding that with the proposed \$2.1 million.

Commissioner Goodhue suggested taking the \$2.1 million or whatever the amount of cash payment was and investing that in more housing. She asked if the Housing Commission was looking at the project.

Principal Planner Rogers said the Housing Commission had reviewed the project at their last meeting with a focused review for the enforceable below market rate requirements which currently relate to commercial uses. He said since the project is a rental project there was no below market rate requirement deriving from the rental component. He said looking at the net increase of commercial, the project was required to provide 9.9 below market rate units and the applicant was proposing to do 10 such units onsite. He said individually Housing Commissioners said they would like to see more below market rate units.

Commissioner Goodhue said she figured the restaurant use would extend into the central plaza and would draw people into that space. She said she did not know whether it would be feasible to bring residential uses into that area as that would impact the design.

Commissioner Kadvany said based on the BAE report, the cost of the project was around \$225 million. He said Specific Plan revenue was intended to fund public improvements such as the Middle Avenue tunnel and parking garages. He said the public benefit should be commensurate

with the project value. He said he was sure more below market rate units was the best use.

Commissioner Combs said he could be supportive of the project. He said it would be helpful for the Commission to decide whether they prefer more below market rate housing or cash.

Commissioner Strehl said in reviewing the Housing Element they did not have as many below market rate units as indicated were needed but that had not taken into account more recent projects and their contributions to that such as the Midpen project on Willow Road. She asked if staff might provide an update when this project came back as to how many below market rate units were achieved and what number remained to do.

Chair Onken said it was important to look at what this project would be if it did not go to the bonus level. He said the project has a lot going for it with its frontage and that whether the outdoor space could be definitely used more broadly or not, it was good to have it.

I. Adjournment

Chair Onken adjourned the meeting at 10:24 p.m.

Staff Liaison: Thomas Rogers, Principal Planner

Recording Secretary: Brenda Bennett

Approved by the Planning Commission on May 9, 2016



STAFF REPORT

City Council

Meeting Date: 7/19/2016

Staff Report Number: 16-128-CC

Informational Item: Update on proposed process to establish a new citywide crosswalk policy

Recommendation

This is an informational item and does not require City Council action.

Policy Issues

This Project is consistent with the 2016 Work Plan approved by City Council on February 9, 2016 and the policies stated in the 1994 City General Plan Circulation Element. These policies seek to maintain a circulation system using the Roadway Classification System that will provide for a safe and efficient movement of people and goods throughout Menlo Park for residential and commercial purposes.

Background

The City regularly receives requests to install or enhance marked crosswalks from residents, businesses and institutions. However, designing a safe roadway crossing for pedestrians is a complex process as the installation of crosswalk striping alone does not necessarily constitute a safe pedestrian crossing. City Council directed staff to develop a set of guidelines to prescribe a formal and transparent process for marked crosswalk implementation.

Analysis

Staff will utilize state and federal guidelines as well as industry standards from neighboring cities to develop a set of standards that will guide the decision to install a marked crosswalk, and the recommended design and potential enhancements for pedestrian crossings based on the number of pedestrians crossing, location visibility, and traffic volume and speeds. The draft Policy will be presented to the Transportation Commission on August 10 and is tentatively scheduled to be brought back to Council on August 30.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

No Attachments.

Staff Report #: 16-128-CC

Report prepared by:
Michael Tsai, Assistant Engineer

Report reviewed by:
Kristiann Choy, Senior Transportation Engineer



STAFF REPORT

City Council

Meeting Date:

7/19/2016

Staff Report Number:

16-130-CC

Informational Item:

Update on Willow Road transportation improvement options

Recommendation

This is an informational item and does not require City Council action.

Policy Issues

The City Council's 2016 Work Plan includes a project to study and prioritize Willow Road transportation improvement options. This Project is also consistent with the policies stated in the 1994 City General Plan Circulation Element. These policies seek to maintain a circulation system using the Roadway Classification System that will provide for a safe and efficient movement of people and goods throughout Menlo Park for residential and commercial purposes.

Background

Willow Road is a two- to four-lane roadway connecting Alma Street with Bayfront Expressway. The City of Menlo Park and Caltrans have jurisdiction over different sections of Willow Road, and the City of East Palo Alto also has right-of-way along Willow near Newbridge Street. The section of Willow Road from Bay Road to Bayfront Expressway is under Caltrans jurisdiction and is classified as State Route (SR) 114.

This work effort was prioritized as part of the Fiscal Year (FY) 2015-16 Capital Improvement Program as a result of increasing traffic congestion along Willow Road and in the region. Residents and local employees, emergency responders including the Menlo Park Fire Protection District and observations from staff have identified traffic congestion on Willow Road as a significant concern. This project complements other ongoing work efforts to improve travel conditions along the Willow Road corridor:

- Bayfront Expressway/Willow Road Intersection Improvements – Facebook East & West Campus traffic mitigation to add a third northbound right-turn lane from Willow Road to Bayfront, add bicycle and pedestrian accommodations. Completed in June 2016.
- Willow Road Traffic Signal Interconnect – Federal grant funded project to install traffic signal interconnect at Gilbert Avenue and Coleman Avenue. Added emergency vehicle pre-emption at both intersections. Substantially complete in July 2016.
- Newbridge Street/Willow Road Intersection Improvements – Facebook East & West Campus traffic mitigation to add a third southbound through lane on Willow Road approaching Newbridge Street connecting to US 101 North, replace bicycle lane and add pedestrian accommodations. Under construction.

Analysis

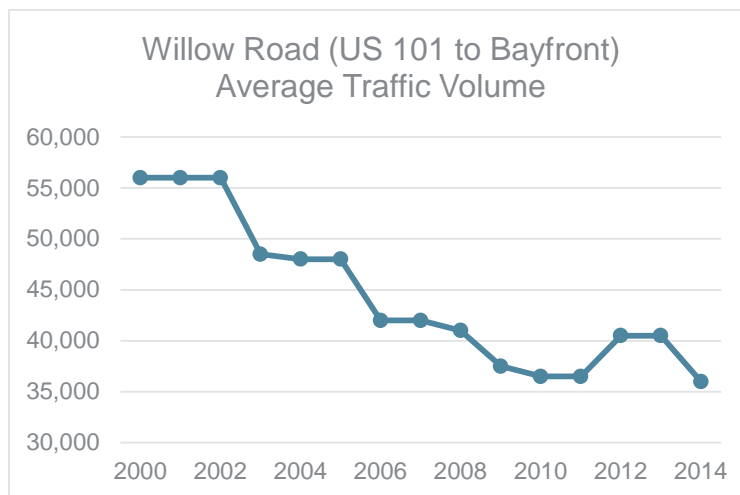
Current Traffic Conditions

Willow Road is a two- to four-lane roadway connecting Alma Street with Bayfront Expressway. The street classification and traffic volume varies along the street, lowest near Alma Street and increases towards US 101, as summarized below:

Roadway Segment	Street Classification	Average Daily Traffic (ADT) Volume ¹
Alma Street to Laurel Street	Collector	3,400
Laurel Street to Middlefield Road	Collector	5,200
Middlefield Road to Gilbert Avenue	Minor Arterial	24,300
Gilbert Avenue to Coleman Avenue	Minor Arterial	24,400
Coleman Avenue to Durham Street	Minor Arterial	41,200
Durham Street to US 101	Minor Arterial	34,100
US 101 to Bayfront Expressway	Primary Arterial	36,000

¹ Average 24-hour traffic volume. Counts obtained by the City of Menlo Park (fall 2014) or via Caltrans 2014 Traffic Census available: <http://www.dot.ca.gov/trafficops/census/2014all/Route103-116.html>

As shown, traffic volumes are highest on Willow Road approaching the US 101 interchange, near Durham Street. Historical trends in traffic volumes were also reviewed, dating back to 2000. The average daily traffic volume for Willow Road between US 101 and Bayfront Expressway annually is summarized in the chart below. The early 2000s were observed to have the highest traffic volumes, with decreases occurring through the late 2000s, and most recent increases as economic conditions improved in 2011 through current conditions.



As shown, the traffic volume based on most recent traffic counts is approximately 36,000 vehicles per day, significantly below the maximum traffic volume observed along this segment in the early 2000s. Based on staff observations, the traffic counts have decreased since 2012 due to congested conditions during commute hours along the corridor, US 101, and the approach to the Dumbarton Bridge.

Based on estimates prepared as part of the City's work on ConnectMenlo, approximately 75-80 percent of peak traffic is regional in nature – i.e., the trip does not start or end in Menlo Park. Willow Road serves as a connection route between downtown Palo Alto and points south and US 101, as well as Bayfront Expressway and the Dumbarton Bridge. In the morning commute period, traffic congestion builds primarily in the southbound direction at each of the following points:

- US 101 interchange: short merging area for freeway traffic contributes to congestion
- Durham Street: Willow Road narrows from two lanes to one lane
- Middlefield Road: Heavy left-turn from southbound Willow to Middlefield Road towards Palo Alto

This congestion causes stop-and-go conditions on Willow Road, backing up to Bayfront Expressway, towards University Avenue and the Dumbarton Bridge, and limits access from the Belle Haven neighborhood towards US 101 and causes cut-through traffic in Belle Haven (primarily Carlton Avenue and streets paralleling Willow Road) and Willows neighborhoods, as well as on Bay Road, Coleman Avenue, and Ringwood Avenue.

In the evening commute period, traffic congestion builds primarily in the northbound direction at each of the following points:

- University Avenue and Willow Road intersections: heavy traffic on Bayfront Expressway merging with University and Willow traffic spills back on to each street
- US 101 interchange: short merging area for freeway traffic contributes to congestion
- Middlefield Road to Durham Street: Willow Road widens at Durham Street to two lanes, cut through traffic exits the Willows neighborhood at Durham Street and Chester Street exacerbating congestion on Willow Road

Staff will be conducting the City's bi-annual traffic counts this coming fall, and will continue to monitor traffic patterns and conditions on Willow Road.

Potential Considerations for Improvement

Staff has identified a series of potential improvement options for Willow Road traffic conditions and secondary effects, which can be summarized in four (4) categories – emergency response support, near-term, mid-term, and long-term improvement options – as summarized in the following table.

Table 2: Summary of Potential Improvement Options

Category	Description	Examples
1. Emergency Response Support	Measures that could help emergency vehicles maneuver Willow Road, especially during congested peak conditions	<p>A. Removal of four curb-side bulbouts</p> <p>B. Creation of rolled curb area at ends of median islands between Middlefield Road and Durham Street to allow large vehicles to maneuver better around congested conditions</p>
2. Near-Term Improvement Options	Measures that could be pursued in the short-term (next three to 12 months), either in the City's jurisdiction or in collaboration with Caltrans	<p>A. Installation of protected left-turn signals to improve access and safety to Willows neighborhood</p> <p>B. Pursue signal timing and cycle length adjustments at Newbridge Street, O'Brien Drive, Ivy Drive and Hamilton Avenue to improve egress from Belle Haven neighborhood during congested conditions</p> <p>C. Evaluate Newbridge Street approach to Willow Road to modify Keep Clear area and improve traffic operations</p> <p>D. Hamilton Avenue intersection approach modifications to address queuing and safety</p> <p>E. Expand free mid-day shuttle service to provide improved service on Willow Road</p>
3. Mid-Term Improvement Options	Measures that would require ongoing community engagement, coordination with Caltrans or other agencies for planning, permitting, design, or construction support	<p>A. Evaluate and identify neighborhood traffic calming in Belle Haven (proposed Facebook traffic mitigation)</p> <p>B. Construction of the US 101/Willow Road interchange project</p> <p>C. Install adaptive signal interconnect between Bayfront Expressway and Middlefield Road</p> <p>D. Support ongoing work on Dumbarton Corridor Study, led by Samtrans</p> <p>E. Support for congestion pricing on the Dumbarton Bridge</p> <p>F. Support for improved Dumbarton Express Bus Service</p>
4. Long-Term Improvement Options	Measures that would require significant planning by the City or other efforts by other agencies	<p>A. Install adaptive signal interconnect on Bayfront Expressway</p> <p>B. Evaluate grade separations at Bayfront Expressway at University Avenue and Willow Road</p> <p>C. Evaluate measures to expand capacity of Willow Road (see <i>2020 Peninsula Gateway Corridor Study</i>¹)</p> <p>D. Evaluate measures to reduce travel time on Bayfront Expressway and US 101 to reduce demand on Willow Road</p>

¹ 2020 Peninsula Gateway Corridor Study included evaluation and prioritization of traffic improvements on the approach to the Dumbarton Bridge. A copy of the study linked in [Attachment A](#).

Next Steps

A study session on Willow Road transportation improvement options is scheduled for a late August Council meeting. At that meeting, staff plans to request further Council direction to:

- Gather feedback on current traffic conditions and issues identified
- Provide feedback on potential improvement options
- Prioritize potential improvement options

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

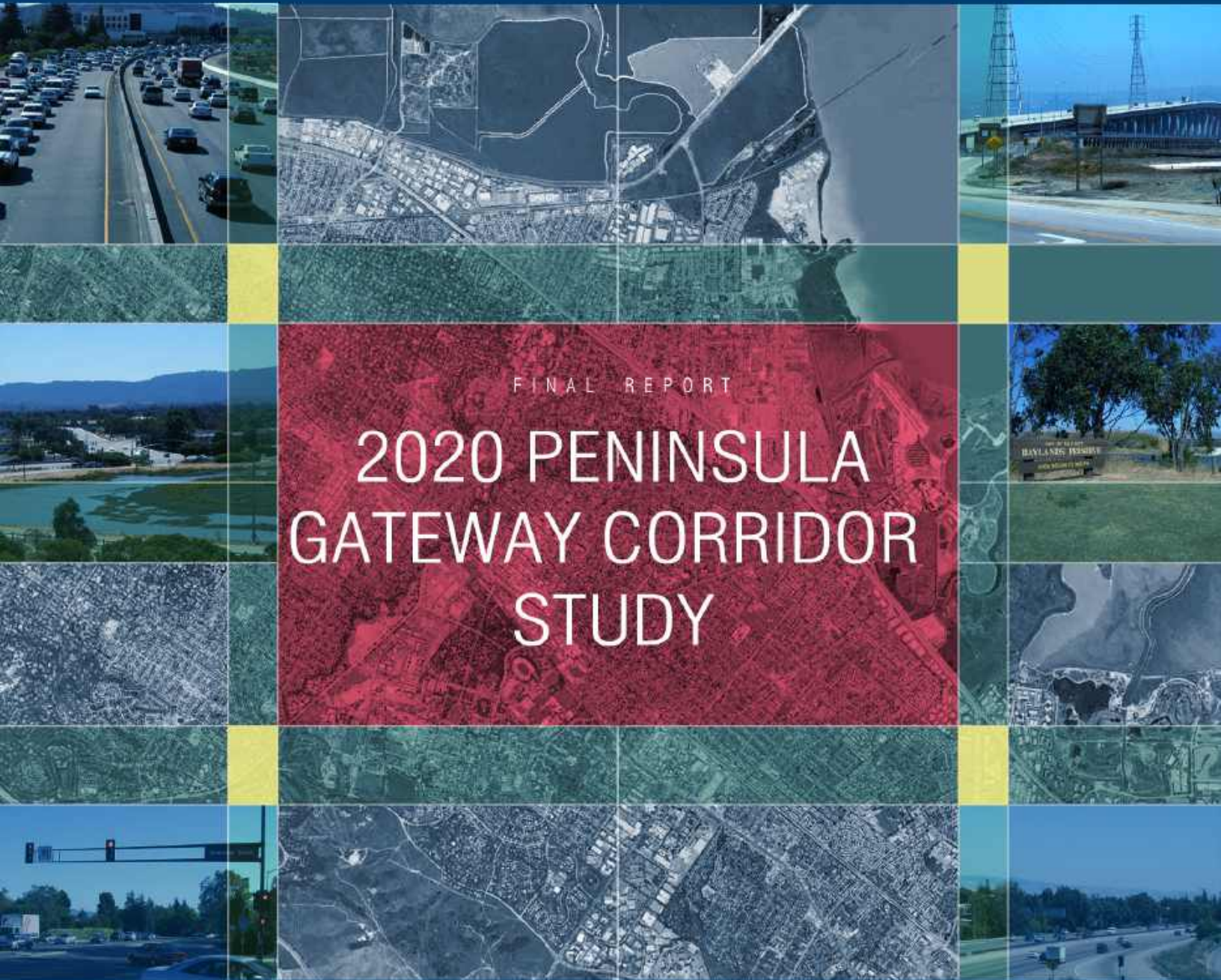
Attachments

- A. [2020 Peninsula Gateway Corridor Study \(http://ccag.ca.gov/wp-content/uploads/2014/05/2020-Gateway-Final-Report-Jul08c.pdf\)](http://ccag.ca.gov/wp-content/uploads/2014/05/2020-Gateway-Final-Report-Jul08c.pdf)

Report prepared by:
Nicole H. Nagaya, P.E., Transportation Manager

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Prepared by:



July 29, 2008

Prepared for



2020 Peninsula Gateway Corridor Study

Final Report

Prepared for:



Prepared by:



July 29, 2008

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Appendices (On Enclosed CD)

Appendix A: Data Collection and Existing Conditions
Appendix B: Public Input
Appendix C: Conceptual Definition & Engineering of Alternatives
Appendix D: Conceptual Cost Estimates
Appendix E: Travel Forecasting
Appendix F: ALPS Modeling Assumptions

This report presents the procedures and findings of the **2020 Peninsula Gateway Corridor Study**, which was conducted by Kimley-Horn and Associates, Inc. (KHA) under contract to the City/County Association of Governments of San Mateo County (C/CAG) in partnership with the San Mateo County Transportation Authority (SMCTA) and Santa Clara Valley Transportation Authority (VTA). This document is organized as follows.

- I. The Problem and Potential Solutions
- II. Detailed Evaluation of Certain Solutions
- III. Findings and Next Steps

I. The Problem and Potential Solutions

A. Study Objectives

The objective of this study was to define and evaluate alternative traffic improvements in the study area that address the *Study Goals*, which are listed below:

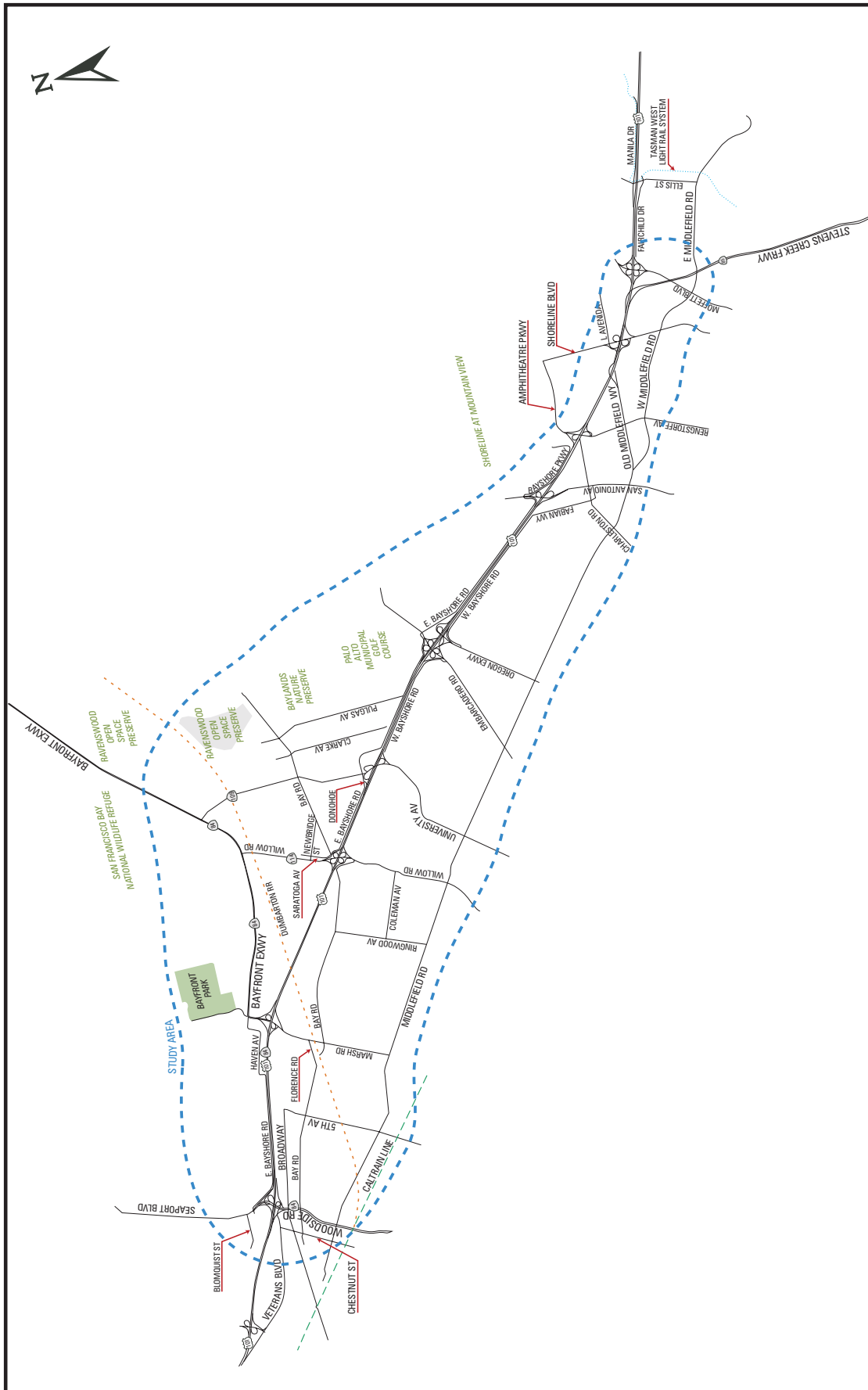
- Facilitate access to communities within the study area;
- Enhance economic opportunities;
- Optimize use of existing infrastructure;
- Reduce congestion and local community impacts caused by commute traffic; and
- Minimize environmental impacts on sensitive resources.

The study area, as defined in **Figures 1 and 2**, encompasses Highway 101 from just north of SR 84 (Woodside Road) to just south of the Route 85 (Stevens Creek Freeway) junction, as well as SR 84 (Bayfront Expressway) from the Dumbarton Bridge landing to Highway 101 and beyond to Middlefield Road including the connecting streets between the Bayfront Expressway and Highway 101.

This study was consciously focused on traffic improvements and did not address transit and multimodal challenges and opportunities. Its findings will be used as appropriate to inform other traffic-oriented efforts addressing the Highway 101 corridor, like the Freeway Performance Initiative Program underway by the Metropolitan Transportation Commission (MTC) and the Corridor System Management Plan (CSMP) sponsored by Caltrans. Sub-regional transit and multimodal issues are being addressed in several current efforts, including the *VTA 2035 Plan* and *Short-Range Transit Plan*, the *Caltrain Strategic Plan* and *Short-Range Transit Plan*, the *Samtrans Short-Range Transit Plan*, the *Strategic Plan for San Mateo County Measure A*, and the *Dumbarton Rail Corridor* project.

B. Definition of Problem

The State highways within the study area all experience substantial traffic demand and poor operating conditions during the peak commute periods. Several important findings from the



review of existing conditions are summarized below and illustrated in **Figure 3**. Appendix A contains details of the assessment of existing conditions.

- The unconventional connection between the Dumbarton Bridge (SR 84) and Highway 101 creates congestion on arterial highways SR 109 (University Avenue) and SR 114 (Willow Road) and the interchanges with Highway 101.
- Congestion of arterial highways approaching and departing the Dumbarton Bridge creates neighborhood traffic impacts in Menlo Park, Palo Alto and East Palo Alto.
- Older full cloverleaf interchanges without collector-distributor roads create short weave conditions resulting in pockets of congestion, which have upstream effects on traffic flow.
- The beginning point of the High Occupancy Vehicle (HOV) lane north of Whipple Avenue coincides with a mixed-flow lane reduction and these changes in combination create notable weaving on southbound Highway 101, friction and upstream congestion.
- Select high volume freeway ramps with short merge areas create bottlenecks that cause upstream congestion.
- Lack of auxiliary lanes between closely spaced interchange ramps creates merging conflicts throughout the corridor, exacerbating highly congested conditions.
- Accident rates on certain segments of State highways in the study area are significantly higher than the statewide average for similar facilities.
- Poorly configured off-ramp intersections with surface streets, combined with high traffic volumes, create back-ups that extend onto Highway 101.

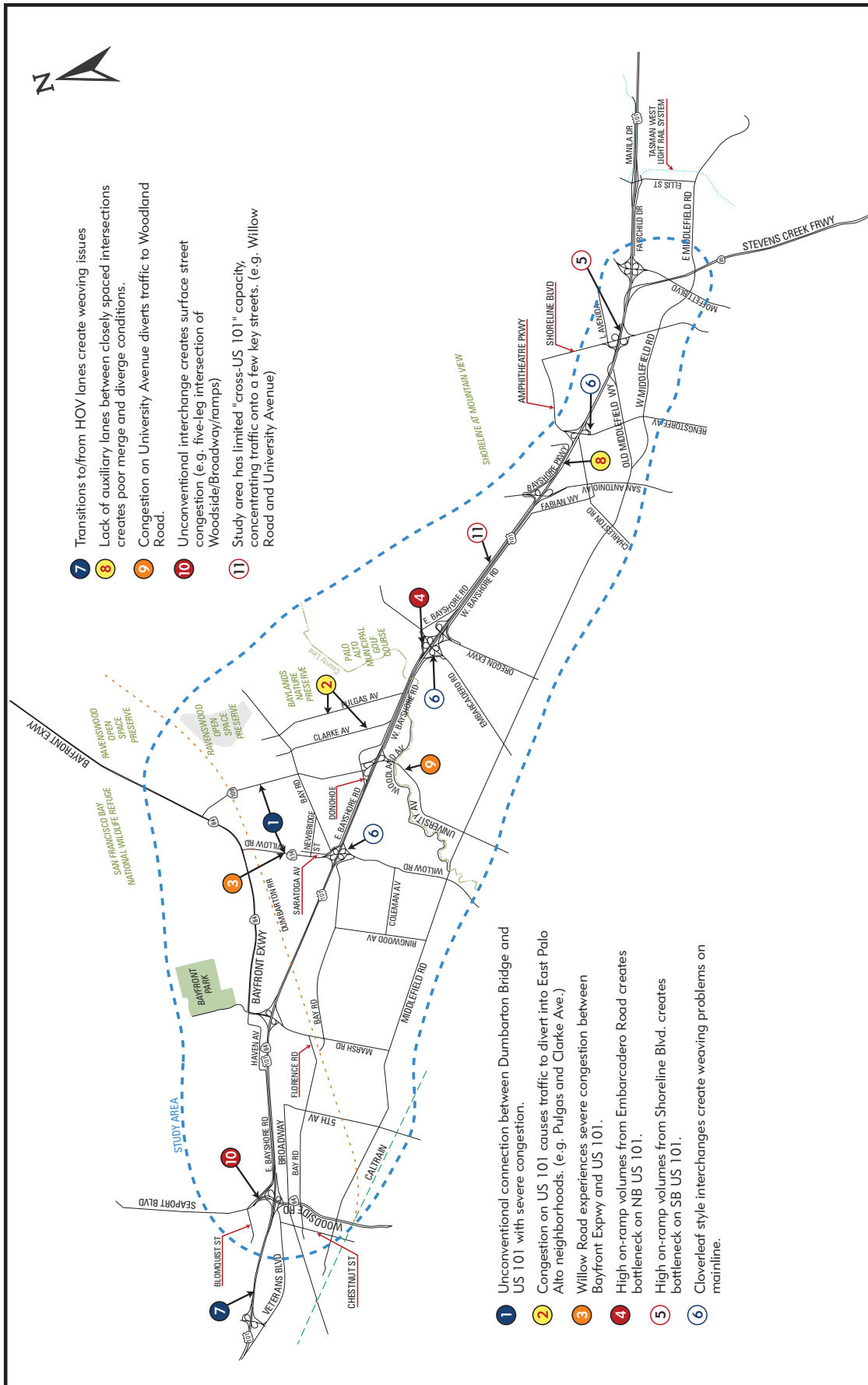
C. Future “No-Build” Conditions

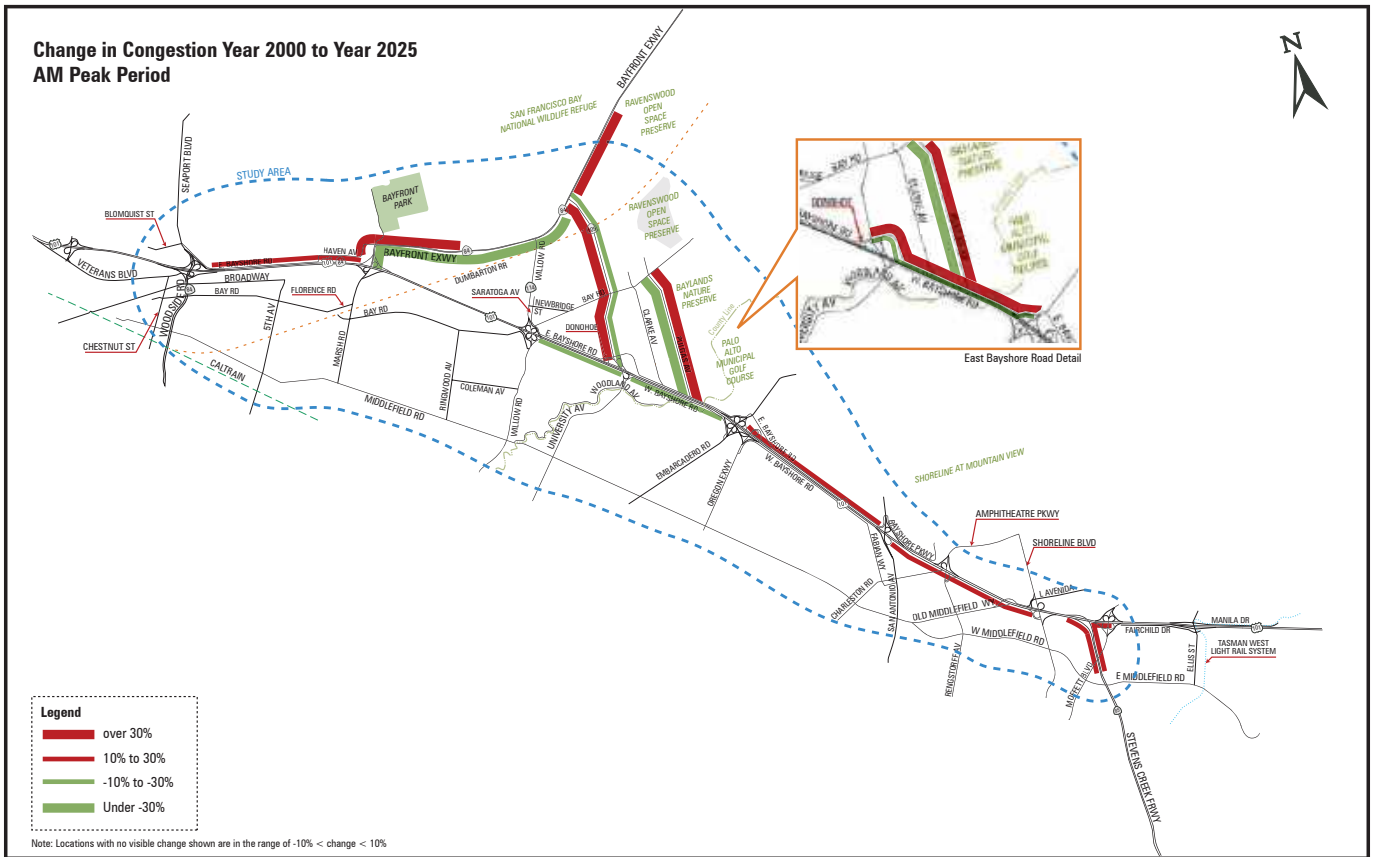
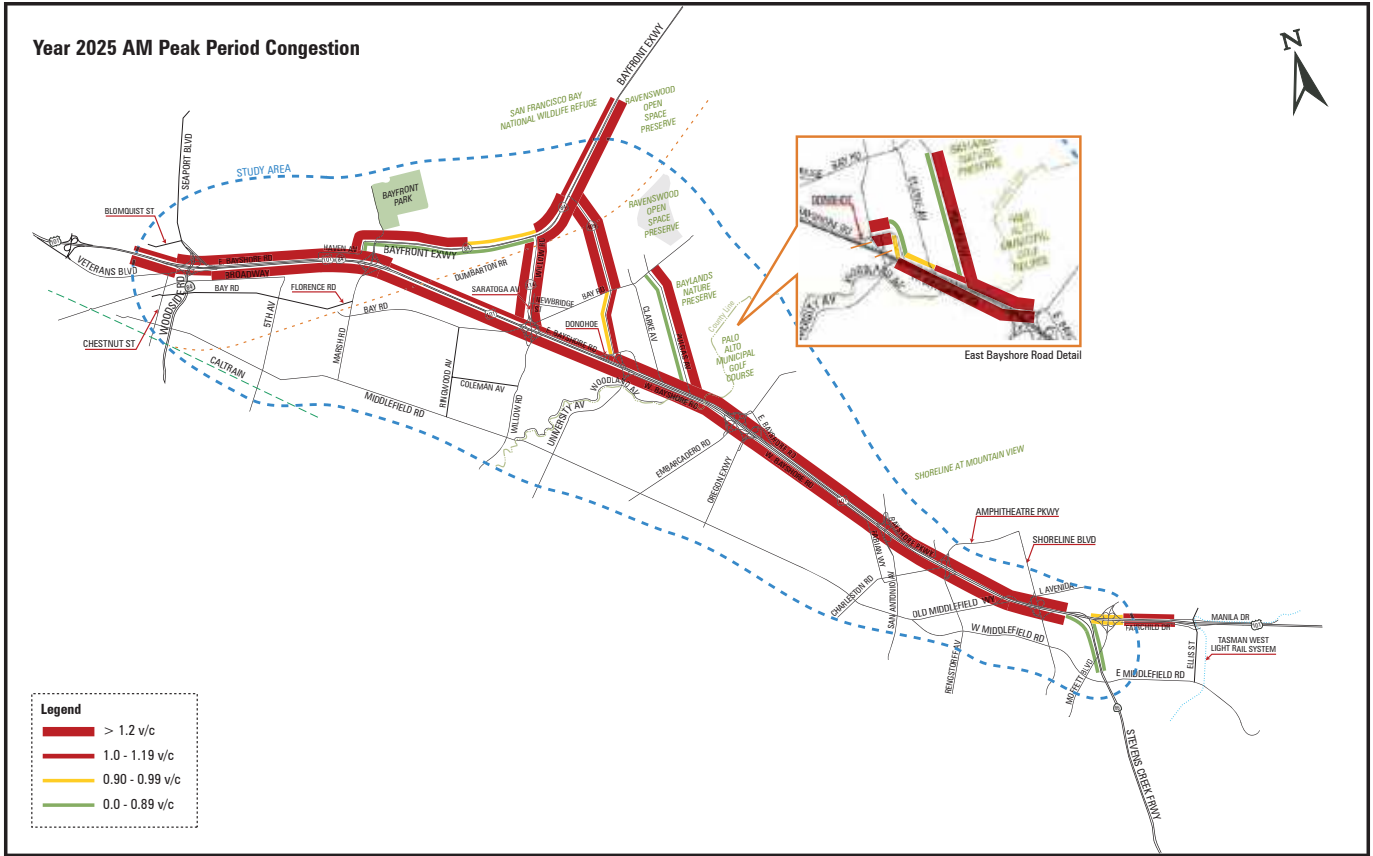
After confirming that existing problems were substantial and very few projects were programmed in the short term, the study emphasized future no-build conditions, with only a few improvements slated for completion from the present through 2025 (the Highway 101/Willow Road interchange and Auxiliary Lanes from Marsh Road to the Santa Clara County Line). In other words, it was felt that existing conditions would only worsen and it was more effective to focus on a long-term horizon as the basis to identify needed traffic improvements.

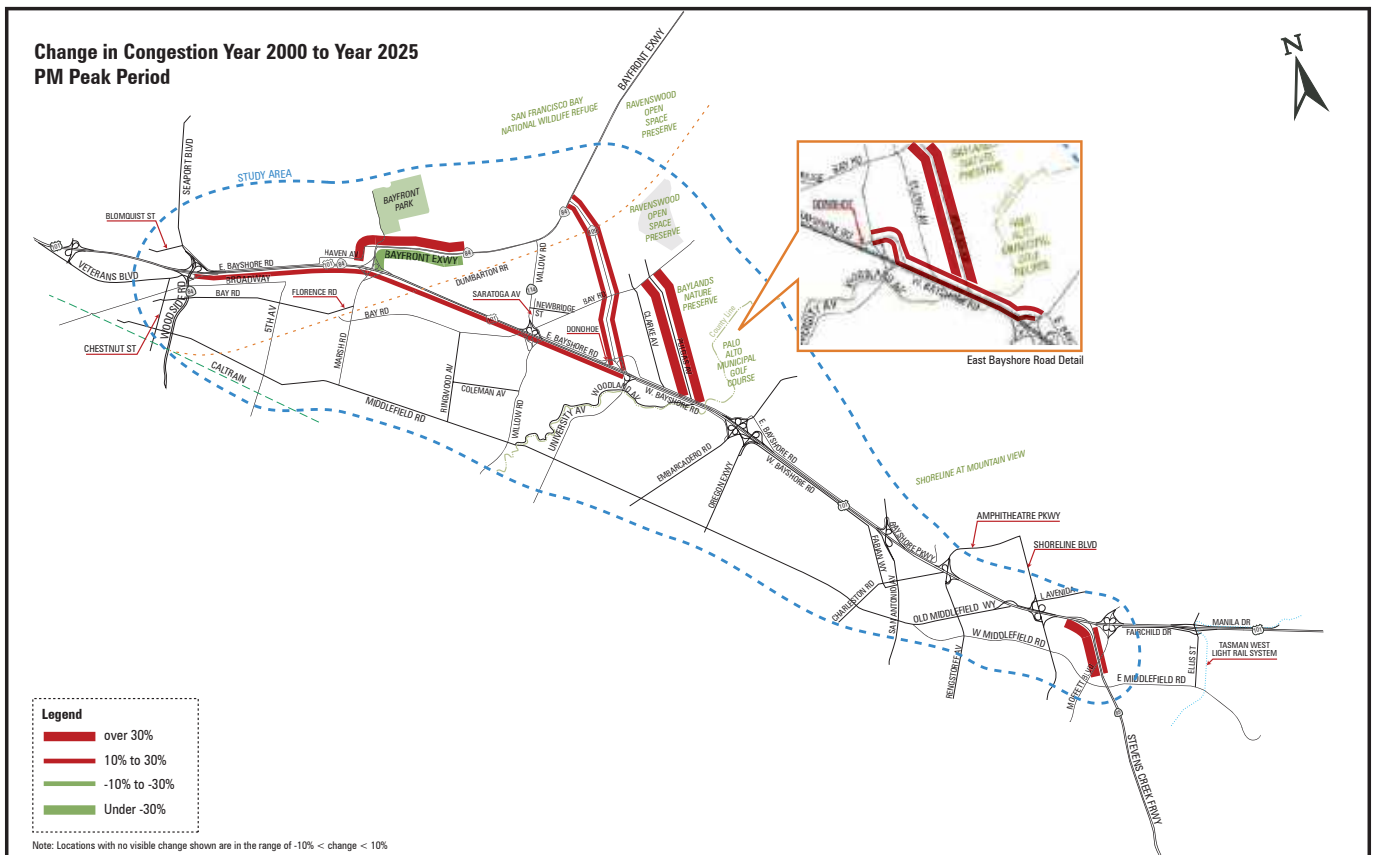
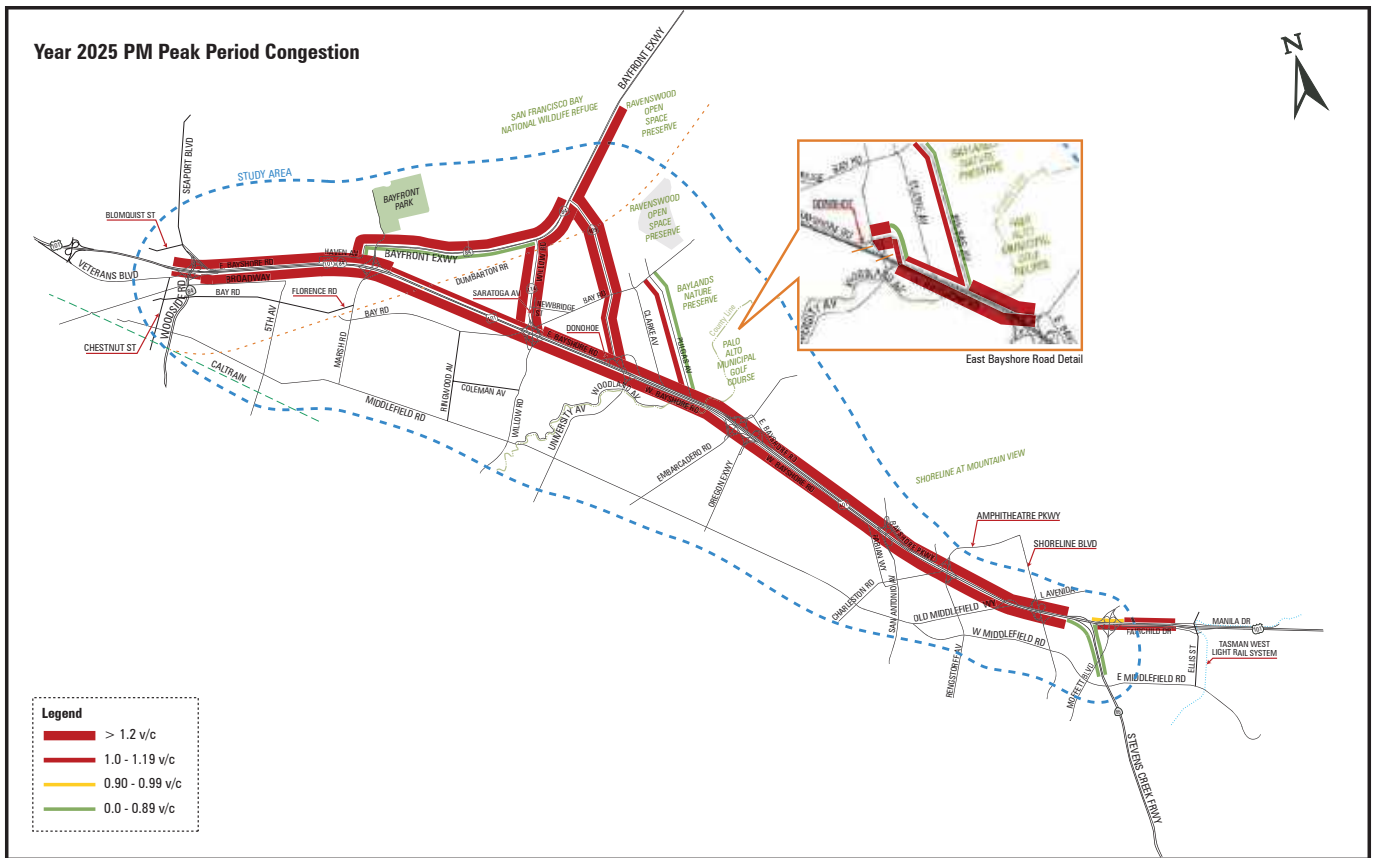
The anticipated congestion levels for 2025 as well as the percentage change in congestion from present day to 2025 are depicted in **Figures 4A** (AM Peak Period) and **4B** (PM Peak Period). By observation, today’s big problem will be tomorrow’s bigger problem under a “No-Build” scenario.

D. Public Outreach

Feedback was obtained from the public during five formal open meetings and from other sources, including written and electronic correspondence. Staff from C/CAG organized the public forums and received other inputs directly. A PowerPoint presentation and handout were prepared to summarize the study objectives, issues, and potential kinds of improvements that might be considered. The formal meetings involved a 25-minute







presentation. Each meeting lasted approximately two hours. Details of this process are contained in Appendix B.

A separate two-phase effort called the “Dumbarton Dialogue Project” was undertaken with funding from the City of East Palo Alto and Caltrans (Community-Based Transportation Planning). The first phase of work involved the Dumbarton Dialogue team reaching out to East Palo Alto community members to 1) inform them about transportation planning through the “University 101 Traffic Academy,” and 2) solicit their participation in the first formal meeting of the series cited above. The second phase of work involved a series of informational meetings, one in each of the communities in the 2020 Peninsula Gateway study area, to discuss local issues and priorities and formulate a collective position for consideration by the 2020 Peninsula Gateway Corridor Study committees and sponsors. This position statement, called the “Dumbarton Dialogue Credo,” was presented to the PAC in June 2007 and contained specific criteria supporting overriding objectives including Quality of Life, Reduce Impact of Commuter Traffic upon East Palo Alto and Eastern Menlo Park, Reduce Traffic Through Transit Alternatives, and Environmental Protection. The “Credo” is included in Appendix B. (See www.dumbartondialogue.org for details.)

E. Development of Universe of Potential Solutions

The alternatives summarized in this report evolved from a series of interim products describing the possible “universe” of alternatives that could potentially address the traffic issues in the corridor in the context of the Study Goals. These were combined with the evaluation of existing conditions and feedback from the Technical Advisory Committee (TAC) and the Policy Advisory Committee (PAC) into a list of potential solutions. A series of themes and their corresponding issues were developed to describe the corridor characteristics. Potential solutions were then brainstormed relating to each theme. Improvements that would complement the solutions, if applicable, were also generally identified. The themes are summarized below and subsequently described with respect to issues and potential solutions.

1. Improve connection (i.e. increase traffic capacity) between Dumbarton Bridge touchdown and Highway 101 North
2. Improve connection (i.e. increase traffic capacity) between Dumbarton Bridge touchdown and Highway 101 South
3. Expand capacity on Highway 101 South (County line to Shoreline Blvd.)
4. Expand capacity on Highway 101 North (County Line to Woodside Road)
5. Divert commuter traffic from East Palo Alto neighborhoods (east/south of University)
6. Divert commuter traffic from University Avenue
7. Traffic calming on local residential streets
8. Improve freeway access
9. Accommodate traffic impacts of major developments
10. Improve traffic management
11. Improve local access across Highway 101.

THEME 1: Improve connection (i.e. increase traffic capacity) between Dumbarton Bridge touchdown and Highway 101 North

ISSUES:

- Congestion at intersections on Bayfront Expressway with University Ave., Willow Road, and Marsh Road
- Conflicting traffic movements at Marsh Road/Highway 101 interchange
- Willow Road, although a State Highway, is only a four-lane arterial primarily serving local uses and lacks capacity
- University Avenue is a four-lane arterial serving many local uses and lacks capacity

POTENTIAL SOLUTIONS:

- Direct flyover connections between Bayfront/Marsh and Highway 101 (north of Marsh)
- Bayfront Expressway extension to Woodside Road Interchange
- Elevated roadway over Dumbarton RR between University and Highway 101 (south of Marsh)
- Grade separate University/Bayfront Expressway intersection
- Grade separate Willow/Bayfront intersection
- An aerial braided roadway connection leaving southbound Highway 101 downstream of Dumbarton Railroad Bridge, proceeding to Willow Road and merging with the northbound Highway 101 to eastbound Willow Road connection.

COMPLEMENTARY IMPROVEMENTS:

- Intelligent Transportation Systems (ITS) (e.g. closed circuit television (CCTV), changeable message signs (CMS), lane control signalization, upgraded communication and detection elements)
- Congestion pricing
- Combine improvements addressing connection to Highway 101 South

THEME 2: Improve connection (i.e. increase traffic capacity) between Dumbarton Bridge touchdown and Highway 101 South

ISSUES:

- Congestion at intersections on Bayfront Expressway with University Ave. and Willow Road
- Willow Road, although a State Highway, is only a four-lane arterial primarily serving local uses and lacks capacity
- University Avenue is a four-lane arterial serving many local uses and lacks capacity

POTENTIAL SOLUTIONS:

- New south connection (various alignment options)
- Tunnel beneath East Palo Alto between (roughly) the Dumbarton Bridge and Highway 101, beneath the Ravenswood Industrial Area and the residential neighborhoods on East Palo Alto's residential subdivisions.
- Aerial braided roadway connections leaving northbound on Highway 101 upstream of Oregon/Embarcadero, aligned over E. Bayshore Road and crossing University Avenue, proceeding to Willow Road and continuing over Willow Road to Bayfront Expressway, continuing over Bayfront Expressway to touchdown just west of the Dumbarton Bridge;

COMPLEMENTARY IMPROVEMENTS:

- ITS (e.g. closed circuit television (CCTV), changeable message signs (CMS), lane control signalization, upgraded communication and detection elements)
- Congestion pricing
- Combine improvements addressing connection to Highway 101 North

THEME 3: Expand capacity on Highway 101 South (County line to Shoreline Blvd.)**ISSUES:**

- Heavy congestion and vehicle delay in both directions of Highway 101 (LOS F)
- Relatively high accident rates on Highway 101
- No southbound on-ramp at San Antonio Rd. forces traffic to Charleston Road on-ramp, which merges to Highway 101 slightly upstream of the Rengstorff Avenue off-ramp and therefore is limited in capacity; also, the increased concentration of traffic at the Rengstorff Avenue southbound on-ramp further worsens the operation on this segment of Highway 101

POTENTIAL SOLUTIONS:

- Auxiliary lanes on Highway 101 from Embarcadero Rd. to Shoreline Blvd.
- Widen Highway 101 to ten through lanes (4 mixed flow, 1 HOV each direction) and reconstruct interchanges at Embarcadero Rd/Oregon Expwy, San Antonio Rd., and Rengstorff Ave., and perhaps Old Middlefield Way
- Widen Highway 101 to 12 lanes (4 mixed flow, 1 auxiliary, 1 HOV each direction)
- Reconstruct Embarcadero/Oregon interchanges to provide room for ultimate 10-12 lanes

COMPLEMENTARY IMPROVEMENTS:

- Convert HOV lanes to High Occupancy Toll (HOT) lanes
- ITS (e.g. closed circuit television (CCTV), changeable message signs (CMS), trailblazer signs for detour directions, upgraded communication and detection elements)

DISCUSSION:

- Complements SR 85/Highway 101 North project and SMCTA Auxiliary Lanes Project (Marsh Rd. to County line)
- SR 85/Highway 101 North project will construct 12 lane cross section at Shoreline Rd. that narrows to 11 lanes at Old Middlefield Way and then to 8 lanes north of Old Middlefield Way

THEME 4: Expand capacity on Highway 101 North (County Line to Woodside Road)**ISSUES:**

- Extreme congestion during long a.m. and p.m. peak periods, in both directions

POTENTIAL SOLUTIONS:

- Widen Highway 101 to 12 lanes (4 mixed flow, 1 auxiliary, 1 HOV each direction), which would require reconstruction of interchanges at Woodside Road, Marsh Road, Willow Road, and University Avenue
- Put HOV lanes on structure, use remaining available space for one added through lane each direction; HOV lanes may need to be express to bypass local interchanges; also, this would limit HOV access to University Avenue and Willow Road, which now provide a bridge connection for many HOVs
- Build elevated deck to accommodate 2 (or more) added mixed flow lanes above Highway 101, which could be reversible
- Reversible lanes on Highway 101; it is noted that this solution would be compatible with a condition where there is substantial directional demand that reverses in one peak period versus another, which is not the case on Highway 101 in the corridor
- Reconstruct selected interchanges in phases, to provide clear width for future widening

COMPLEMENTARY IMPROVEMENTS:

- ITS (e.g. closed circuit television (CCTV), changeable message signs (CMS), trailblazer signs for detour directions, upgraded communication and detection elements)
- Congestion pricing

DISCUSSION:

- Limited capacity at study boundaries of Highway 101 corridor would indicate that these improvements may simply “move” an existing bottleneck

THEME 5: Divert commuter traffic from East Palo Alto neighborhoods (east/south of University)**ISSUES:**

- Heavy commuter traffic (cut-through) volumes and congestion on East Bayshore, Pulgas, Clarke, and Bay in East Palo Alto

POTENTIAL SOLUTIONS:

- New south connection (various alignment options)
- Increase University Avenue capacity (remove parking, widen or two-level roadway, or tunnel and surface roadway, grade separated intersections, or reversible lanes)
- Increase Willow Road capacity (grade separated intersections, “fast lane,” tunnel, reversible lanes, expressway)
- Traffic calming (prohibit movements, prohibit non-resident traffic, etc.) on affected streets;

COMPLEMENTARY IMPROVEMENTS:

- Close neighborhood streets to through traffic in combination with above capacity increases
- Pricing/tolls on new connection
- ITS (e.g. closed circuit television (CCTV), changeable message signs (CMS), lane control signalization, traffic signal coordination, upgraded communication and detection elements)

THEME 6: Divert commuter traffic from University Avenue**ISSUES:**

- Heavy congestion on University Avenue due to through traffic
- Street is essentially a barrier that divides the community resulting in safety and quality of life challenges

POTENTIAL SOLUTIONS:

- New south connection (various alignment options)
- Increase Willow Road capacity
- Streetscape and traffic calming improvements on University Avenue
- Roundabouts at Donohoe, Bay, other intersections

COMPLEMENTARY IMPROVEMENTS:

- Close neighborhood streets (Pulgas, Clarke, Bay) to through traffic
- Pricing/tolls on new connection
- ITS (e.g. closed circuit television (CCTV), changeable message signs (CMS), lane control signalization, traffic signal coordination, upgraded communication and detection elements)

THEME 7: Traffic calming on local residential streets**ISSUES:**

- Congestion on University Avenue west of Highway 101 induces diversion to Woodland Avenue in Menlo Park

- Heavy commuter cut-through traffic in East Palo Alto (E. Bayshore to Pulgas or Clarke to Bay to University)

POTENTIAL SOLUTIONS:

- Modify Woodland Avenue to maintain access to University Palms/Four Seasons Hotel and impede commuter cut-through traffic
- Close Pulgas, Clarke, and Bay to cut-through traffic using traffic calming improvements

COMPLEMENTARY IMPROVEMENTS:

- ITS (e.g. CMS, CCTV, traffic speed detection)

THEME 8: Improve freeway access**ISSUES:**

- No southbound Highway 101 on-ramp at San Antonio Avenue puts pressure on low-capacity on-ramp at Charleston Road
- Southbound connections at Woodside Road create congestion, limit access to Highway 101

POTENTIAL SOLUTIONS:

- Add southbound on-ramp at San Antonio Avenue and remove on-ramp at Charleston Road
- Reconstruct Highway 101/Woodside Road interchange

THEME 9: Accommodate traffic impacts of major developments**ISSUES:**

- Planned development projects in Redwood City (e.g. Abbott Labs and Peninsula Park) will add peak hour vehicle trips to the Seaport Boulevard/Woodside Road/Highway 101 interchange

POTENTIAL SOLUTIONS:

- Reduce parking supply and increase transit service at new developments
- Widen the planned Blomquist Street Extension from 2 to 4 lanes, creating a 4-lane parallel arterial between Seaport Boulevard and Whipple Road
- Reconstruct Woodside Road interchange
- Widen Woodside Road

THEME10: Improve traffic management**ISSUES:**

- The lack of traffic management elements in the study area results in poor driving habits and reactionary driving create unnecessary friction, congestion, and incidents

- Without management, traffic flows to fill available capacity regardless of size or nature of street systems

POTENTIAL SOLUTIONS:

- Metering westbound traffic at the west touchdown of the Dumbarton Bridge to introduce more orderly flow on University Avenue, Willow Road, Bayfront Expressway, and vehicle input at Highway 101
- Active traffic management throughout the corridor

COMPLEMENTARY IMPROVEMENTS:

- ITS (e.g. incident management system/protocol, closed circuit television (CCTV), changeable message signs (CMS), trailblazer signs for detour directions, upgraded communication and detection elements)
- Pricing/tolls

THEME 11: Improve local access across Highway 101**ISSUES:**

- Highway 101 interchanges, especially those at Marsh, Willow, and University, act as bottlenecks and therefore barriers to local traffic desiring to cross Highway 101

POTENTIAL SOLUTIONS:

- Restricted-access, limited capacity tunnel or aerial connections across Highway 101 corridor that would serve only crossing traffic, not traffic entering/leaving Highway 101

COMPLEMENTARY IMPROVEMENTS:

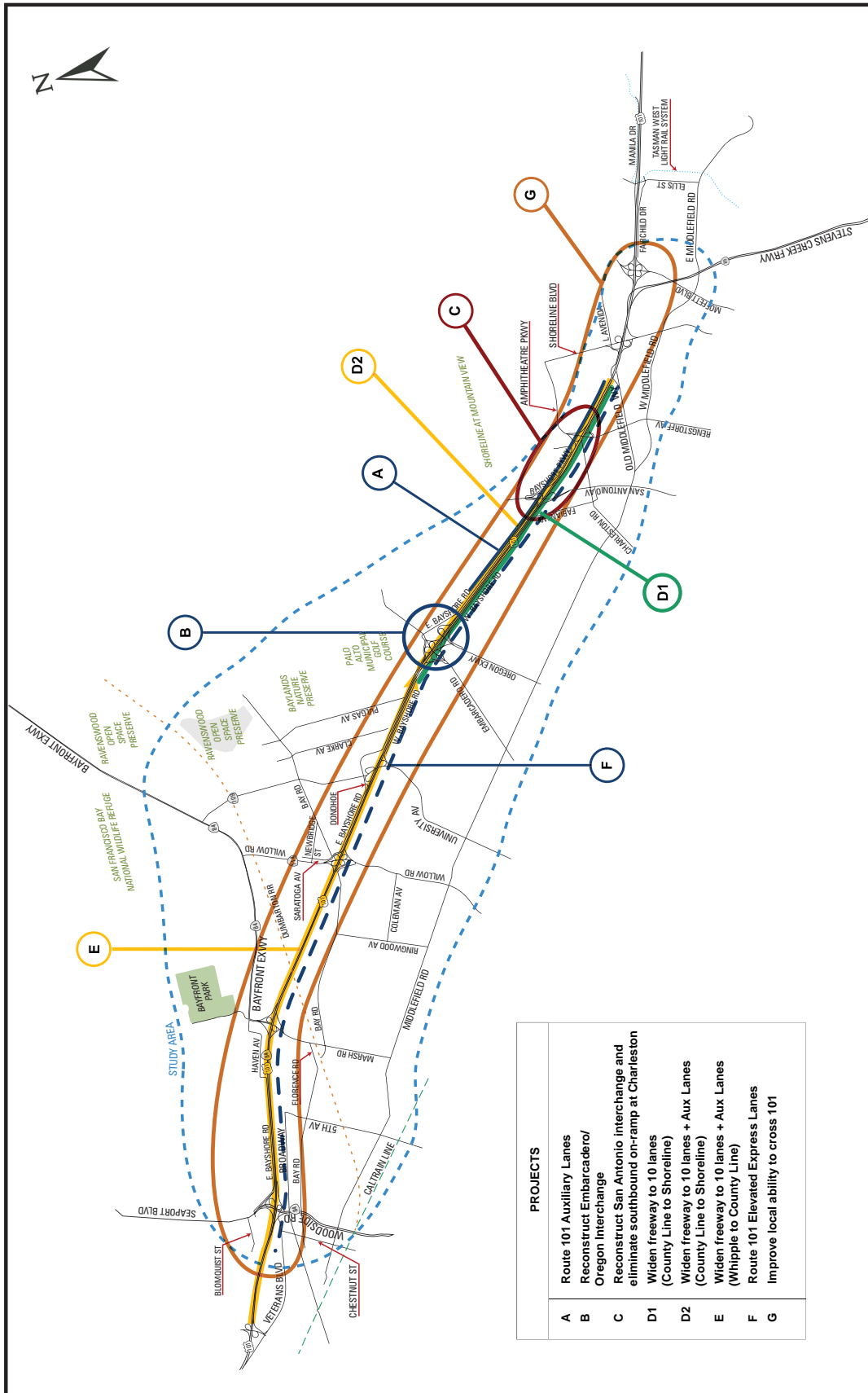
- ITS (e.g. signage, CMS, CCTV, lane control signalization, possibly electronic Fastrak-like access control systems that would be programmed to recognize local vehicles and identify (and cite) vehicles not technically permitted to use the restricted-access facilities)

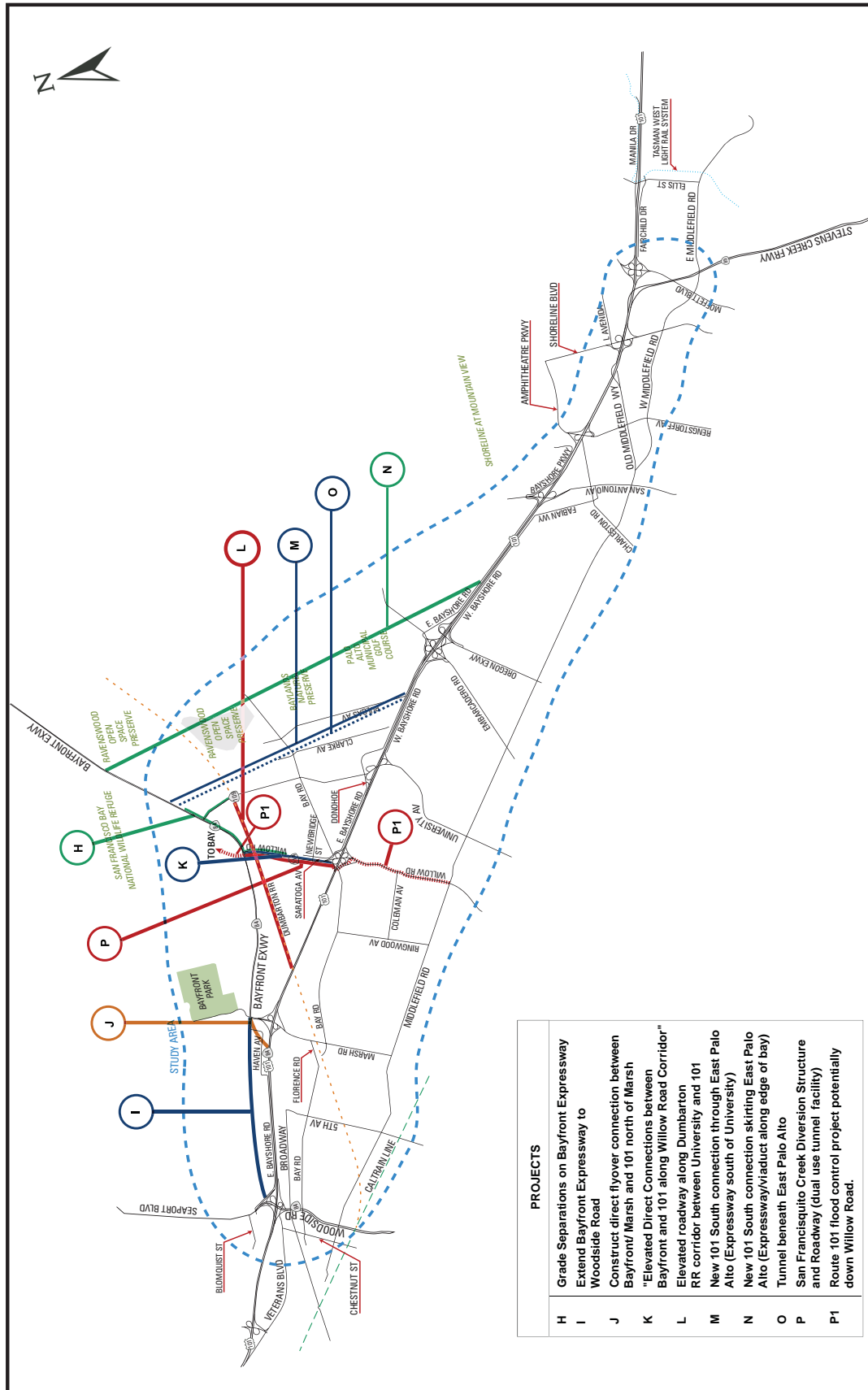
F. Assessment of Universe of Potential Solutions

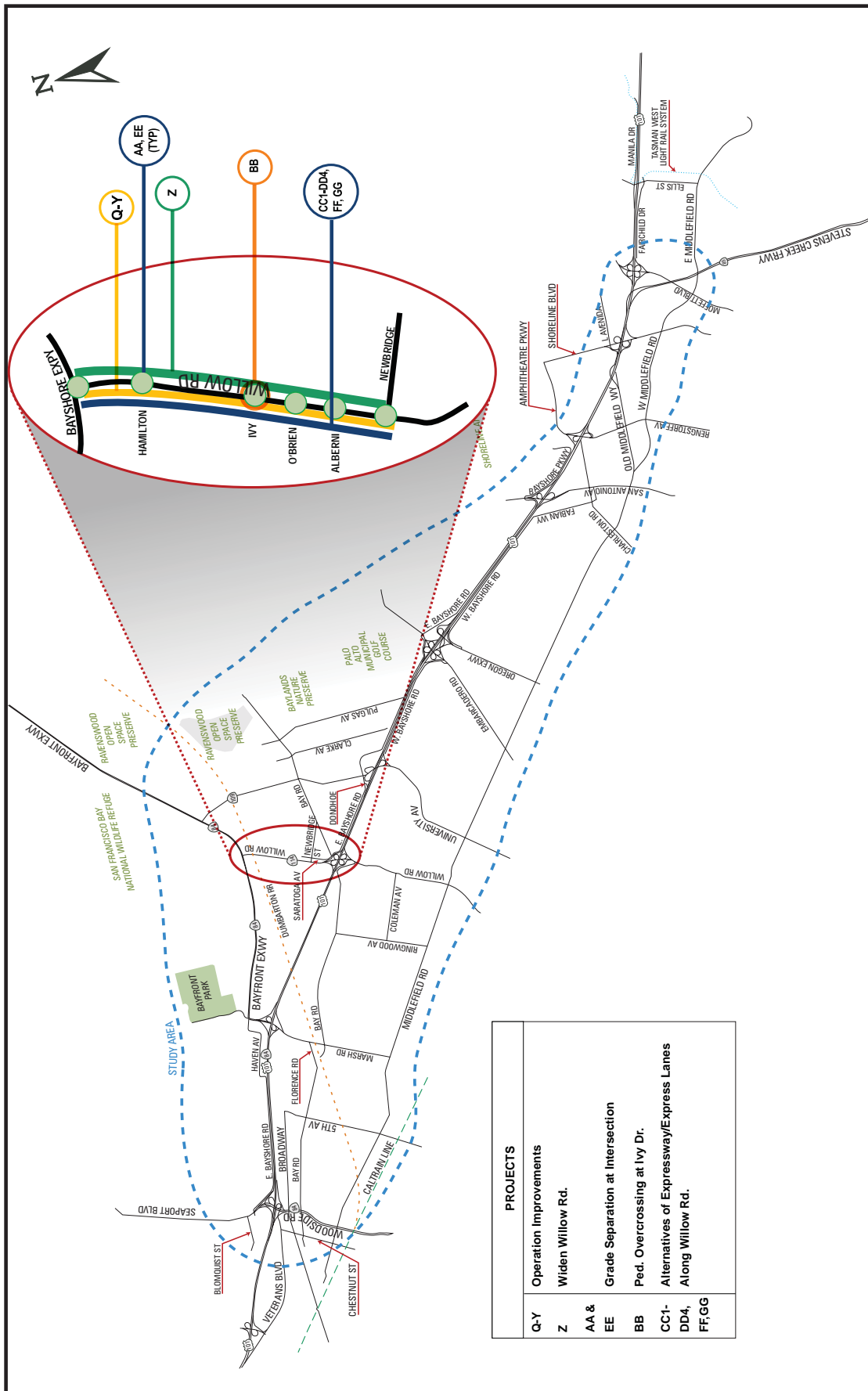
The potential themes were reviewed in several meetings with the Technical Advisory Committee (TAC) and the Policy Advisory Committee (PAC). This culminated in a list of 71 alternative improvements. These were compiled in a chart with respect to pros and cons, potential fatal flaws, relative costs, and implementation horizons, which were in turn reviewed with the TAC and the PAC. These alternatives are shown in **Figures 5A** through **5E** and are grouped geographically.

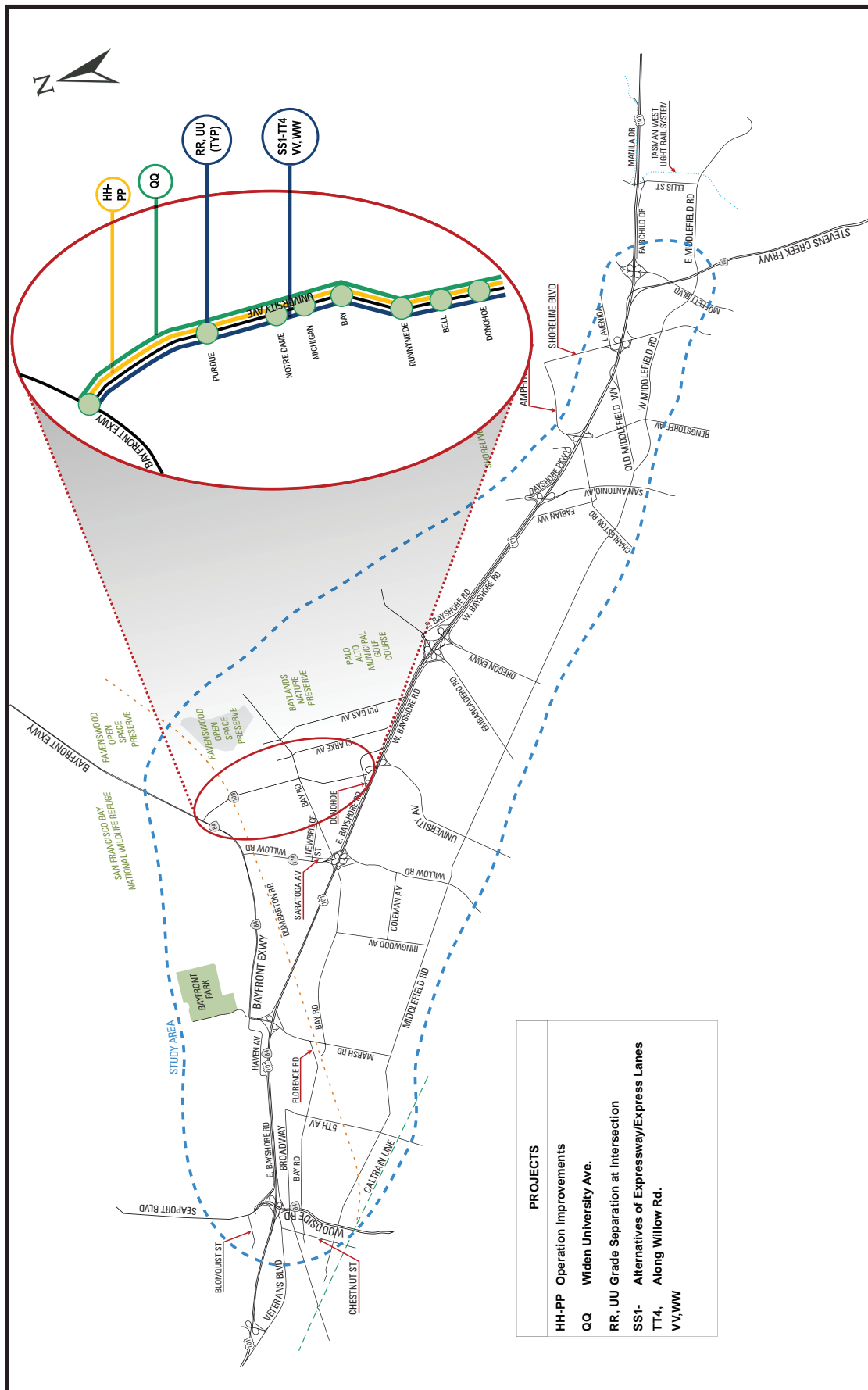
Once the list of all possible alternatives was brainstormed, an assessment of relative benefits, costs, and impacts was conducted. The following tables summarize the assessment that utilized a simple “high-medium-low” approach.

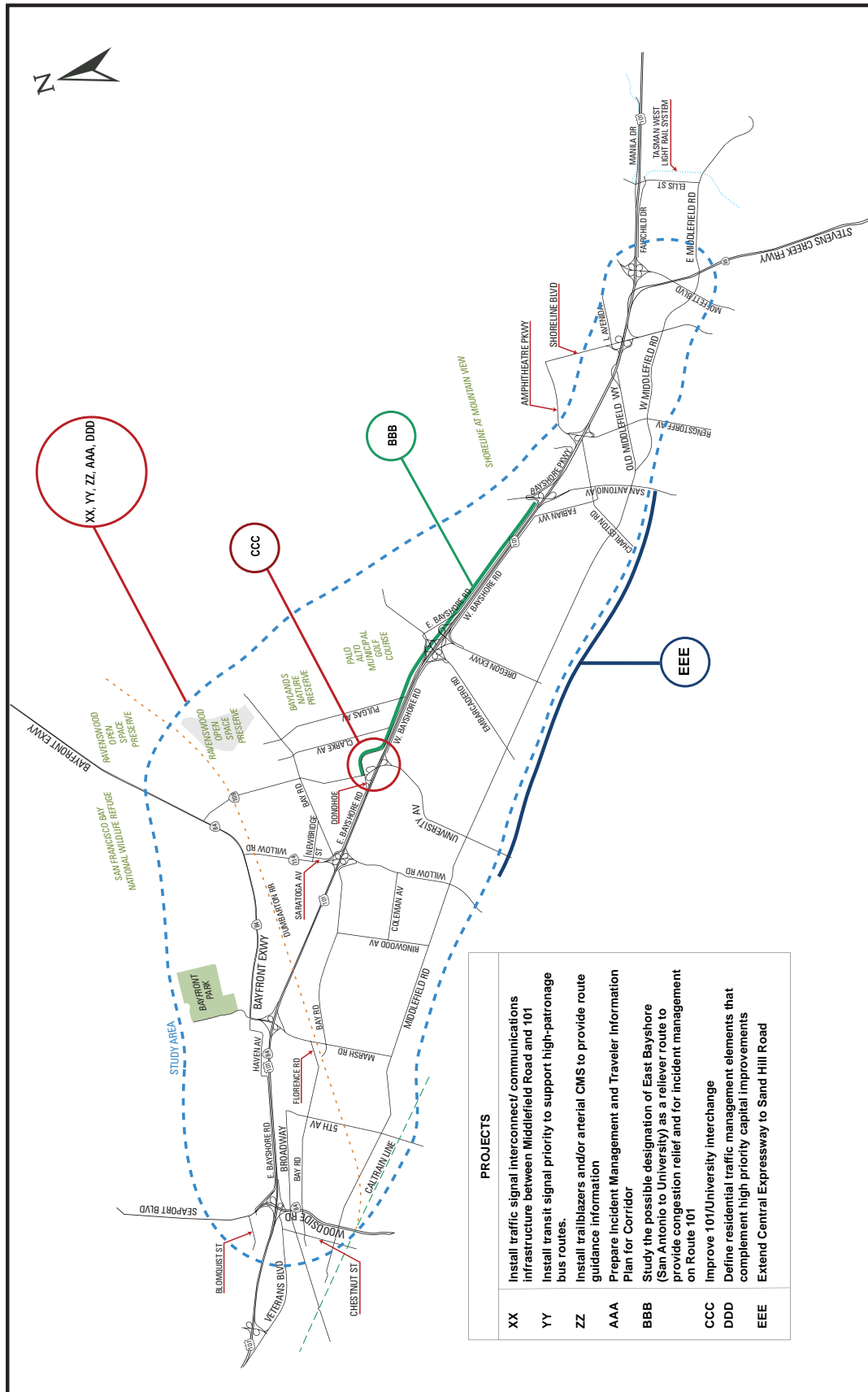
- **Table 1A:** Highway 101
 - Projects A and D1:
 - Both have 10-lane mainline cross-section











HIGHWAY 101

ID Code	Alternative	Location	Traffic Benefits		Construction Cost (2006\$)	Potential Impacts			
			Change in Roadway Congestion <i>(Expressed in ranges of travel time savings (min))</i>	Decrease commute traffic on residential streets? <i>(Expressed in ranges of peak period traffic volume)</i>		Visual/Aesthetics	Noise	Environment	Right-of-Way
A	Route 101 Auxiliary Lanes	MV, PA	See "Comparison" Chart (ALT 1)						
B	Reconstruct Embarcadero/Oregon Interchange	MV, PA	⊙	⊙	\$\$\$	⊙	⊙	⊙	⊙
C	Reconstruct San Antonio interchange and eliminate southbound on ramp at Charleston	MV, PA	●	-	\$\$\$	⊙	⊙	⊙	⊙
D1	Widen freeway to 10 lanes (County Line to Shoreline)	MV, PA	●	-	\$\$\$\$\$	⊙	⊙	⊙	⊙
D2	Widen freeway to 10 lanes + Aux Lanes (County Line to Shoreline)	MV, PA	●	-	\$\$\$\$\$	○	⊙	○	○
E	Widen freeway to 10 lanes + Aux Lanes (Whipple to County Line)	RC, MP, EPA, PA	●	-	\$\$\$\$\$	○	⊙	○	○
F	Route 101 Elevated Express Lanes	MV, PA, EPA, MP, RC	See "Comparison" Chart (ALT 2)						
G	Improve local ability to cross 101	MV, PA, EPA, MP, RC	-	-	\$\$	-	-	⊙	⊙

Location Key

EPA East Palo Alto	MP Menlo Park	MV Mountain View	PA Palo Alto	RC Redwood City
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Construction Cost Key

\$\$\$\$\$ >\$500M	\$\$\$\$ \$200M-\$500M	\$\$\$ \$50M-\$200M	\$\$ \$1M-\$50M	\$ <\$1M
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ASSESSMENT KEY

	TRAFFIC BENEFITS	POTENTIAL IMPACTS
●	Improvement	Less-Than-Significant
⊙	Small Improvement	Less-Than-Significant (w/ MITIGATION)
○	Degrade	Significant
-	No Change	None

- D1 requires reconstruction of interchanges
- Projects D2 and E require substantial right-of-way, disruption
- Project F may require right-of-way at conform locations
- **Table 1B:** Connection between Dumbarton Bridge and Highway 101
 - Project H would have visual impact
 - Projects I and J would have similar benefits
 - Projects M and N would have significant impacts
 - Project P1 is not a traffic project so no traffic benefits are shown
- **Table 1C:** Willow Road
 - Several projects have small benefits and significant Environment impact
 - Widening and grade-separations, while beneficial, have significant impacts
 - Difference between CC and GG (express lanes) is primarily visual
- **Table 1D:** University Avenue
 - Several projects have small benefits and significant Environment impacts
 - Widening and grade-separations, while beneficial, have significant impacts
 - Difference between SS and WW (express lanes) is primarily visual
- **Table 1E:** Intelligent Transportation Systems (ITS)
 - Complementary to physical expansion projects
 - Incident Management Study is nearing completion (sponsored by C/CAG).
- **Table 1F:** Other
 - Two projects are studies
 - Central Expressway extension, while beneficial, would have significant impacts

CONNECTING BRIDGE AND HIGHWAY 101

ID Code	Alternative	Location	Traffic Benefits		Construction Cost (2006\$)	Potential Impacts			
			Change in Roadway Congestion <i>(Expressed in ranges of travel time savings (min))</i>	Decrease commute traffic on residential streets? <i>(Expressed in ranges of peak period traffic volume)</i>		Visual/Aesthetics	Noise	Environment	Right-of-Way
H	Grade Separations on Bayfront Expressway	EPA, MP	See "Comparison" Chart (ALT 3)						
I	Extend Bayfront Expressway to Woodside Road	MP, RC	●	⊙	\$\$\$	⊙	⊙	○	○
J	Construct direct flyover connection between Bayfront/ Marsh and 101 north of Marsh	MP, RC	⊙	⊙	\$\$\$	○	⊙	⊙	○
K	Elevated Direct Connections between Bayfront and 101 along Willow Road Corridor	EPA, MP	This project has been replaced by improvement CC						
L	Elevated roadway along Dumbarton RR corridor between University and 101	EPA, MP	●	⊙	\$\$\$\$	○	⊙	○	⊙
M	New 101 South connection through East Palo Alto (Expressway south of University)	EPA, MP	●	●	\$\$\$\$\$	○	○	○	○
N	New 101 South connection skirting East Palo Alto (Expressway/viaduct along edge of bay)	EPA, PA	●	●	\$\$\$\$\$	○	⊙	○	○
O	Tunnel beneath East Palo Alto	EPA	●	●	\$\$\$\$\$	●	●	●	⊙
P	San Francisquito Creek Diversion Structure and Roadway (dual use tunnel facility)	EPA, PA	⊙	⊙	\$\$\$\$	⊙	⊙	○	⊙
P1	Route 101 flood control project potentially down Willow Road.	EPA, MP	-	-	\$\$\$\$	⊙	⊙	○	⊙

Location Key

EPA	East Palo Alto	MP	Menlo Park	MV	Mountain View	PA	Palo Alto	RC	Redwood City
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Construction Cost Key

\$\$\$\$\$	>\$500M	\$\$\$\$	\$200M-\$500M	\$\$\$	\$50M-\$200M	\$\$	\$1M-\$50M	\$	<\$1M
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ASSESSMENT KEY

	TRAFFIC BENEFITS	POTENTIAL IMPACTS
●	Improvement	Less-Than-Significant
⊙	Small Improvement	Less-Than-Significant (w/ MITIGATION)
○	Degrade	Significant
-	No Change	None

WILLOW ROAD

ID Code	Alternative	Location	Traffic Benefits		Construction Cost (2006\$)	Potential Impacts			
			Change in Roadway Congestion <i>(Expressed in ranges of travel time savings (min))</i>	Decrease commute traffic on residential streets? <i>(Expressed in ranges of peak period traffic volume)</i>		Visual/Aesthetics	Noise	Environment	Right-of-Way
Q	Short-term operational improvements on Willow Road	EPA, MP	See "Comparison" Chart (ALT 4)						
R	Prohibit left turns during peak travel periods	EPA, MP	⊙	⊙	\$	-	-	⊙	-
S	Prohibit local cross traffic during peak travel periods	EPA, MP	⊙	⊙	\$	-	-	○	-
T	Exit/Entrance Right Turn pockets on Willow	EPA, MP	⊙	⊙	\$	-	-	-	⊙
U	Set back curb line one lane width from traveled way at driveways	EPA, MP	⊙	⊙	\$	-	-	○	○
V	Eliminate driveway access on Willow	EPA, MP	⊙	⊙	\$	-	-	○	-
W	Eliminate selected signalized intersections: · Newbridge St · Ivy Dr · Hamilton Ave	EPA, MP	⊙	⊙	\$	-	-	○	-
X	Eliminate signalized intersections and allow right turns only on/off Willow	EPA, MP	⊙	⊙	\$	-	-	○	-
Y	Eliminate signalized intersections and prohibit any access from local streets	EPA, MP	⊙	⊙	\$	-	-	○	-
Z	Widen Willow one lane each direction	EPA, MP	●	●	\$\$\$	○	⊙	○	○
AA	Grade separations at selected intersections: · Newbridge St · Ivy Dr · Hamilton Ave	EPA, MP	●	●	\$\$\$\$	○	⊙	○	○
BB	Pedestrian over crossing at Ivy Dr (near Mid-Peninsula High School)	EPA, MP	-	-	\$\$	○	-	-	⊙

ASSESSMENT KEY

	TRAFFIC BENEFITS	POTENTIAL IMPACTS
●	Improvement	Less-Than-Significant
⊙	Small Improvement	Less-Than-Significant (w/ MITIGATION)
○	Degrade	Significant
-	No Change	None

Location Key

EPA	East Palo Alto	MP	Menlo Park	MV	Mountain View	PA	Palo Alto	RC	Redwood City
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Construction Cost Key

\$\$\$\$\$	>\$500M	\$\$\$\$	\$200M-\$500M	\$\$\$	\$50M-\$200M	\$\$	\$1M-\$50M	\$	<\$1M
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WILLOW ROAD (CONT'D)

ID Code	Alternative	Location	Traffic Benefits		Construction Cost (2006\$)	Potential Impacts			
			Change in Roadway Congestion <small>(Expressed in ranges of travel time savings (min))</small>	Decrease commute traffic on residential streets? <small>(Expressed in ranges of peak period traffic volume)</small>		Visual/Aesthetics	Noise	Environment	Right-of-Way
CC1	Elevated viaduct expressway structure • 2 lanes in each direction	EPA, MP	●	⊙	\$\$\$\$	○	⊙	⊙	○
CC2 (Alt 6)	Elevated viaduct expressway structure • 1 lane in each direction	EPA, MP	See "Comparison" Chart (ALT 6)						
CC3	Elevated viaduct expressway structure • Reversible 2 lanes	EPA, MP	●	⊙	\$\$\$\$	○	⊙	⊙	⊙
CC4	Elevated viaduct expressway structure • 3 lanes with reversible middle lane	EPA, MP	●	⊙	\$\$\$\$	○	⊙	⊙	⊙
DD1	Depressed expressway • 2 lanes in each direction	EPA, MP	●	⊙	\$\$\$\$	⊙	⊙	⊙	○
DD2	Depressed expressway • 1 lane in each direction	EPA, MP	●	⊙	\$\$\$\$	⊙	⊙	⊙	⊙
DD3	Depressed expressway • Reversible 2 lanes	EPA, MP	●	⊙	\$\$\$\$	⊙	⊙	⊙	⊙
DD4	Depressed expressway • 3 lanes with reversible middle lane	EPA, MP	●	⊙	\$\$\$\$	⊙	⊙	⊙	⊙
EE	Grade separations at all intersections (over crossings or under crossings)	EPA, MP	●	●	\$\$\$\$\$	○	⊙	○	○
FF	Tunnel Expressway (maintaining existing facility at grade)	EPA, MP	●	●	\$\$\$\$	⊙	⊙	⊙	⊙
GG	Willow Road Depressed/Cantilevered Express Lanes	EPA, MP	See "Comparison" Chart (ALT 7)						

Location Key

EPA	East Palo Alto	MP	Menlo Park	MV	Mountain View	PA	Palo Alto	RC	Redwood City
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Construction Cost Key

\$\$\$\$\$	>\$500M	\$\$\$\$	\$200M-\$500M	\$\$\$	\$50M-\$200M	\$\$	\$1M-\$50M	\$	<\$1M
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ASSESSMENT KEY

	TRAFFIC BENEFITS	POTENTIAL IMPACTS
●	Improvement	Less-Than-Significant
⊙	Small Improvement	Less-Than-Significant (w/ MITIGATION)
○	Degrade	Significant
-	No Change	None

UNIVERSITY AVENUE

ID Code	Alternative	Location	Traffic Benefits		Construction Cost (2006\$)	Potential Impacts			
			Change in Roadway Congestion <i>(Expressed in ranges of travel time savings (min))</i>	Decrease commute traffic on residential streets? <i>(Expressed in ranges of peak period traffic volume)</i>		Visual/Aesthetics	Noise	Environment	Right-of-Way
HH	Short-term operational improvements on University Avenue	EPA	See "Comparison" Chart (ALT 8)						
II	Prohibit left turns during peak travel periods	EPA	⊙	⊙	\$	-	-	⊙	-
JJ	Prohibit local cross traffic during peak travel periods	EPA	⊙	⊙	\$	-	-	○	-
KK	Entrance/Exit Right Turn pockets on University	EPA	⊙	⊙	\$	-	-	-	⊙
LL	Set back curb line one lane width from traveled way at driveways	EPA	⊙	⊙	\$	-	-	○	○
MM	Eliminate driveway access on University	EPA	⊙	⊙	\$	-	-	○	-
NN	Eliminate selected signalized intersections: · Bell · Runnymede · Kavanaugh	EPA	⊙	⊙	\$	-	-	○	-
OO	Eliminate signalized intersections and allow right turns only on/off University	EPA	⊙	⊙	\$	-	-	○	-
PP	Eliminate signalized intersections and prohibit any access from local streets	EPA	⊙	⊙	\$	-	-	○	-
QQ	Widen University one lane each direction	EPA	●	●	\$\$\$	○	⊙	○	○
RR	Grade separations at selected intersections: · Donohoe · Bay	EPA	●	●	\$\$\$\$	○	⊙	○	○

ASSESSMENT KEY

	TRAFFIC BENEFITS	POTENTIAL IMPACTS
●	Improvement	Less-Than-Significant
⊙	Small Improvement	Less-Than-Significant (w/ MITIGATION)
○	Degrade	Significant
-	No Change	None

Location Key

EPA East Palo Alto	MP Menlo Park	MV Mountain View	PA Palo Alto	RC Redwood City
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Construction Cost Key

\$\$\$\$\$ >\$500M	\$\$\$\$ \$200M-\$500M	\$\$\$ \$50M-\$200M	\$\$ \$1M-\$50M	\$ <\$1M
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UNIVERSITY AVENUE (CONT'D)

ID Code	Alternative	Location	Traffic Benefits		Construction Cost (2006\$)	Potential Impacts			
			Change in Roadway Congestion <i>(Expressed in ranges of travel time savings (min))</i>	Decrease commute traffic on residential streets? <i>(Expressed in ranges of peak period traffic volume)</i>		Visual/Aesthetics	Noise	Environment	Right-of-Way
SS1	Elevated expressway/viaduct along University corridor · 2 lanes each direction	EPA	⊙	●	\$\$\$\$	○	⊙	⊙	○
SS2	Elevated viaduct expressway structure · 1 lane in each direction	EPA	○	●	\$\$\$\$	○	⊙	⊙	⊙
SS3	Elevated viaduct expressway structure · Reversible 2 lanes	EPA	⊙	●	\$\$\$\$	○	⊙	⊙	⊙
SS4	Elevated viaduct expressway structure · 3 lanes with reversible middle lane	EPA	●	●	\$\$\$\$	○	⊙	⊙	○
TT1	Depressed expressway · 2 lanes each direction	EPA	⊙	●	\$\$\$\$\$	⊙	⊙	⊙	○
TT2	Depressed expressway · 1 lane in each direction	EPA	○	●	\$\$\$\$\$	⊙	⊙	⊙	⊙
TT3	Depressed expressway · Reversible 2 lanes	EPA	⊙	●	\$\$\$\$\$	⊙	⊙	⊙	⊙
TT4	Depressed expressway · 3 lanes with reversible middle lane	EPA	●	●	\$\$\$\$\$	⊙	⊙	⊙	○
UU	Grade separations at all intersections (over crossings or under crossings)	EPA	●	●	\$\$\$\$\$	○	⊙	○	○
VV	Tunnel Expressway, (maintain existing facility at grade)	EPA	●	●	\$\$\$\$\$	●	●	●	⊙
WW	University Avenue Depressed/ Cantilevered Express Lanes	EPA	See "Comparison" Chart (ALT 9)						

Location Key

EPA East Palo Alto	MP Menlo Park	MV Mountain View	PA Palo Alto	RC Redwood City
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Construction Cost Key

\$\$\$\$\$ >\$500M	\$\$\$\$ \$200M-\$500M	\$\$\$ \$50M-\$200M	\$\$ \$1M-\$50M	\$ <\$1M
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ASSESSMENT KEY

	TRAFFIC BENEFITS	POTENTIAL IMPACTS
●	Improvement	Less-Than-Significant
⊙	Small Improvement	Less-Than-Significant (w/ MITIGATION)
○	Degrade	Significant
-	No Change	None

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

ID Code	Alternative	Location	Traffic Benefits		Construction Cost (2006\$)	Potential Impacts			
			Change in Roadway Congestion <i>(Expressed in ranges of travel time savings (min))</i>	Decrease commute traffic on residential streets? <i>(Expressed in ranges of peak period traffic volume)</i>		Visual/Aesthetics	Noise	Environment	Right-of-Way
XX	Install traffic signal interconnect/communications infrastructure on arterials between Middlefield Road and 101	ALL	⊙	⊙	\$\$	-	-	-	-
YY	Install transit signal priority to support high-patronage bus routes.	ALL	⊙	⊙	\$\$	-	-	-	-
ZZ	Install trailblazers and/or arterial CMS to provide route guidance information	ALL	⊙	⊙	\$\$	-	-	-	-
AAA	Prepare Incident Management and Traveler Information Plan for Corridor	ALL	⊙	⊙	\$	-	-	-	-

Location Key

EPA East Palo Alto	MP Menlo Park	MV Mountain View	PA Palo Alto	RC Redwood City
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Construction Cost Key

\$\$\$\$\$ >\$500M	\$\$\$\$ \$200M-\$500M	\$\$\$ \$50M-\$200M	\$\$ \$1M-\$50M	\$ <\$1M
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ASSESSMENT KEY

	TRAFFIC BENEFITS	POTENTIAL IMPACTS
●	Improvement	Less-Than-Significant
⊙	Small Improvement	Less-Than-Significant (w/ MITIGATION)
○	Degrade	Significant
-	No Change	None

OTHER

ID Code	Alternative	Location	Traffic Benefits		Construction Cost (2006\$)	Potential Impacts			
			Change in Roadway Congestion <i>(Expressed in ranges of travel time savings (min))</i>	Decrease commute traffic on residential streets? <i>(Expressed in ranges of peak period traffic volume)</i>		Visual/Aesthetics	Noise	Environment	Right-of-Way
BBB	Study the possible designation of East Bayshore (San Antonio to University) as a reliever route to provide congestion relief and for incident management on Route 101 - Improve operations at intersections - Install directional signage to help keep commuters off residential streets	PA, EPA	-	-	\$	-	-	-	-
CCC1	Improve 101/University interchange - Construct Phase 2 improvements (Part A = SB direct connect off-ramp, Part B = Bike access)	PA, EPA	⊙	⊙	\$\$	●	●	●	●
CCC2	Improve 101/University interchange - Improve on-off connections for northbound traffic	PA, EPA	⊙	⊙	\$\$\$	⊙	⊙	⊙	⊙
DDD	Define residential traffic management elements that complement high priority capital improvements	ALL	-	●	\$	-	-	●	-
EEE	Extend Central Expressway to Sand Hill Road	PA	●	●	\$\$\$\$\$	○	○	○	○

Location Key

EPA East Palo Alto	MP Menlo Park	MV Mountain View	PA Palo Alto	RC Redwood City
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Construction Cost Key

\$\$\$\$\$ >\$500M	\$\$\$\$ \$200M-\$500M	\$\$\$ \$50M-\$200M	\$\$ \$1M-\$50M	\$ <\$1M
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ASSESSMENT KEY

	TRAFFIC BENEFITS	POTENTIAL IMPACTS
●	Improvement	Less-Than-Significant
⊙	Small Improvement	Less-Than-Significant (w/ MITIGATION)
○	Degrade	Significant
-	No Change	None

II. Detailed Evaluation of Certain Solutions

A. Definition and Engineering of Solutions

Eight specific improvements were defined by consensus of the TAC and the PAC as representative of the range of improvements that would address the study goals and should therefore be studied in more detail. These are summarized below. Appendix C contains conceptual sketches of most of the alternatives.

[Note: This study defines Highway 101 as north-south and intersecting streets as east-west. Bayfront Expressway is also defined as east-west.]

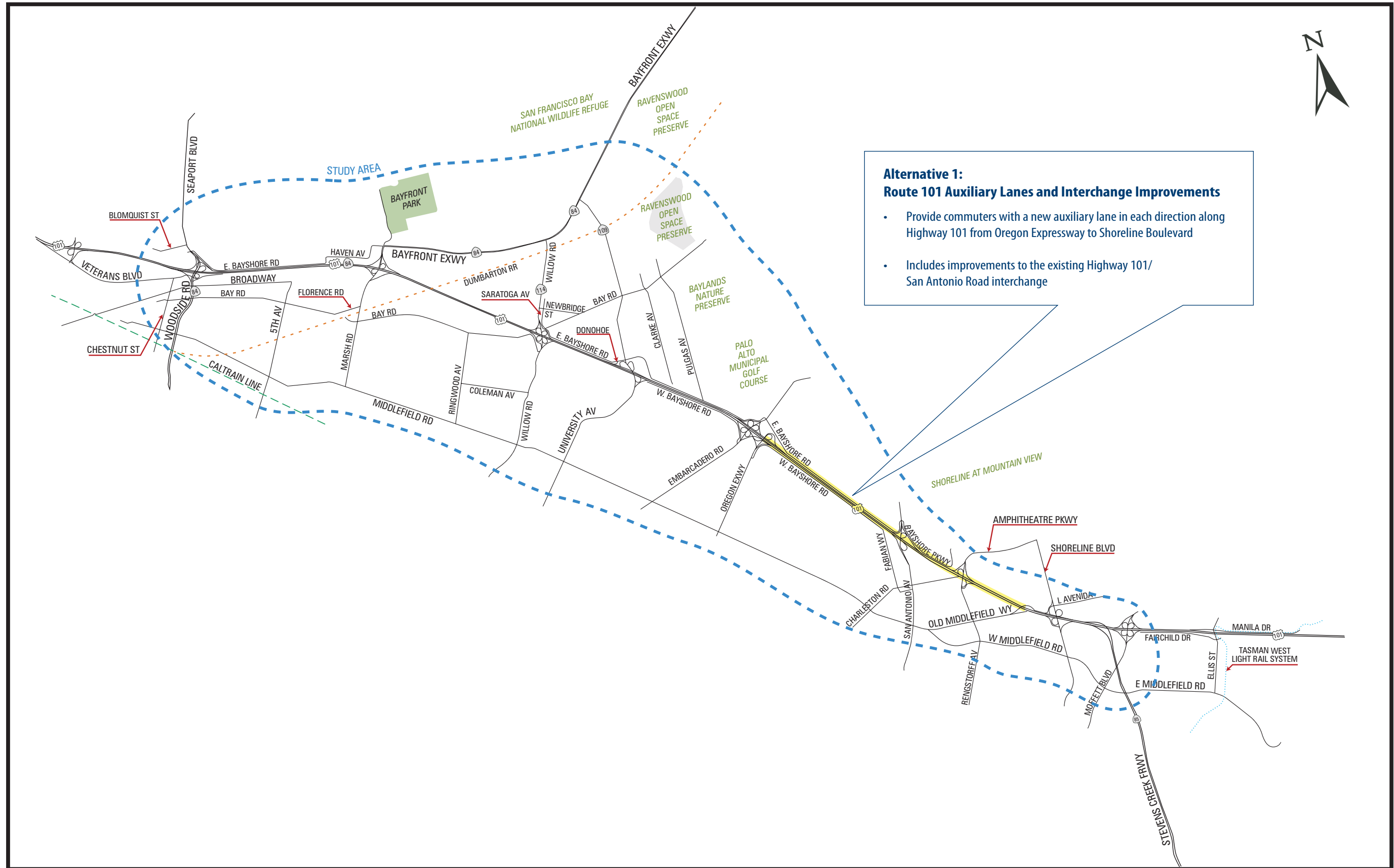
Alternative 1: Highway 101 Auxiliary Lanes and Interchange Improvements – This proposed alternative would provide commuters with a new auxiliary lane in each direction along Highway 101 from Oregon Expressway to Shoreline Boulevard. **Figure 6** illustrates the location of this improvement and Appendix C includes a conceptual sketch of the layout and cross section of this option. The roadway widening would require ramp modifications at existing interchanges, soundwalls, and the installation of longitudinal storm drainpipes on both sides of the highway to accommodate runoffs. These improvements would succeed the newly constructed auxiliary lanes from Hillsdale Boulevard to Marsh Avenue and also the future extension of the auxiliary lanes to Embarcadero Road proposed by the San Mateo County Transportation Authority.

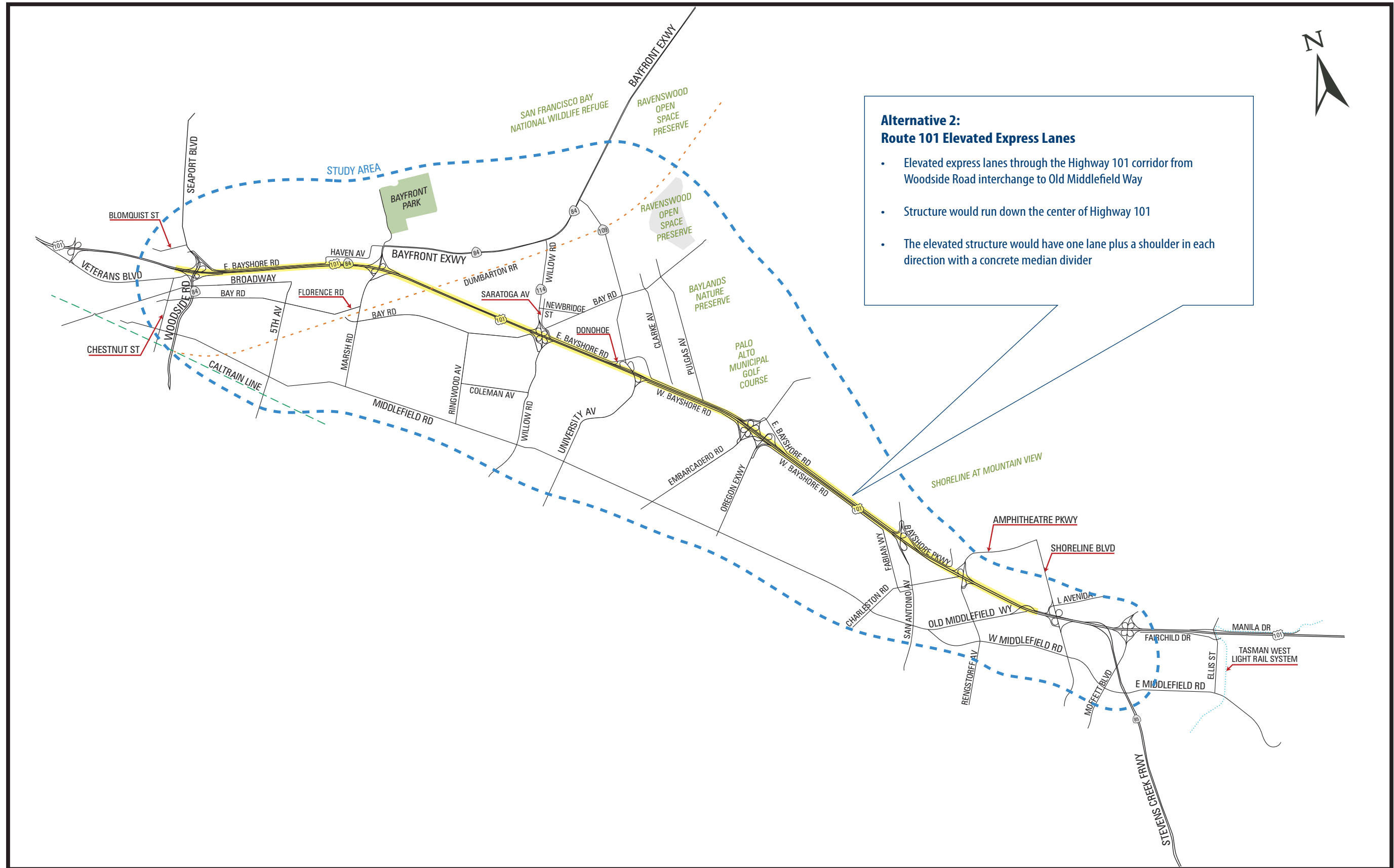
This alternative will include improvements to the existing Highway 101/San Antonio Road interchange. Currently there are no on-ramps to Highway 101 for commuters to San Jose. Commuters are forced to use Charleston Road, a local road that connects to Highway 101 at the Rengstorff Interchange.

One option is to remove the existing southbound loop off-ramp to provide room for a new southbound diagonal on-ramp onto Highway 101. A “T” intersection/ramp connection to San Antonio Road would accommodate a left turn movement for westbound commuters wanting to exit onto the highway. The impacts of this option will include the widening of the existing bridge crossing to allow for the left-turn lane. The addition of new storage lanes would require eastbound commuters on San Antonio Road to merge sooner prior to connecting to the southbound diagonal on-ramp to avoid backing up through traffic. Right-of-way would also be required along the west side of Highway 101 to allow room for the diagonal on-ramp connection.

In addition, the existing diagonal off-ramp from Highway 101 would be modified to also have a “T” intersection/ramp connection to the local road to provide left- and right-turn movements onto San Antonio Road.

Alternative 2: Highway 101 Elevated Express Lanes – This alternative would provide commuters with elevated express lanes through the Highway 101 corridor from Woodside Road Interchange to Old Middlefield Way. **Figure 7** illustrates the





location of this improvement, which is shown in more detail in Appendix C. The elevated structure would run down the center of Highway 101, about 6 meters above grade at stretches between the interchanges, and would raise above all existing interchanges and railroad overcrossing to an approximated grade of 12 meters. The elevated structure would have one lane plus a shoulder in each direction with a concrete median divider.

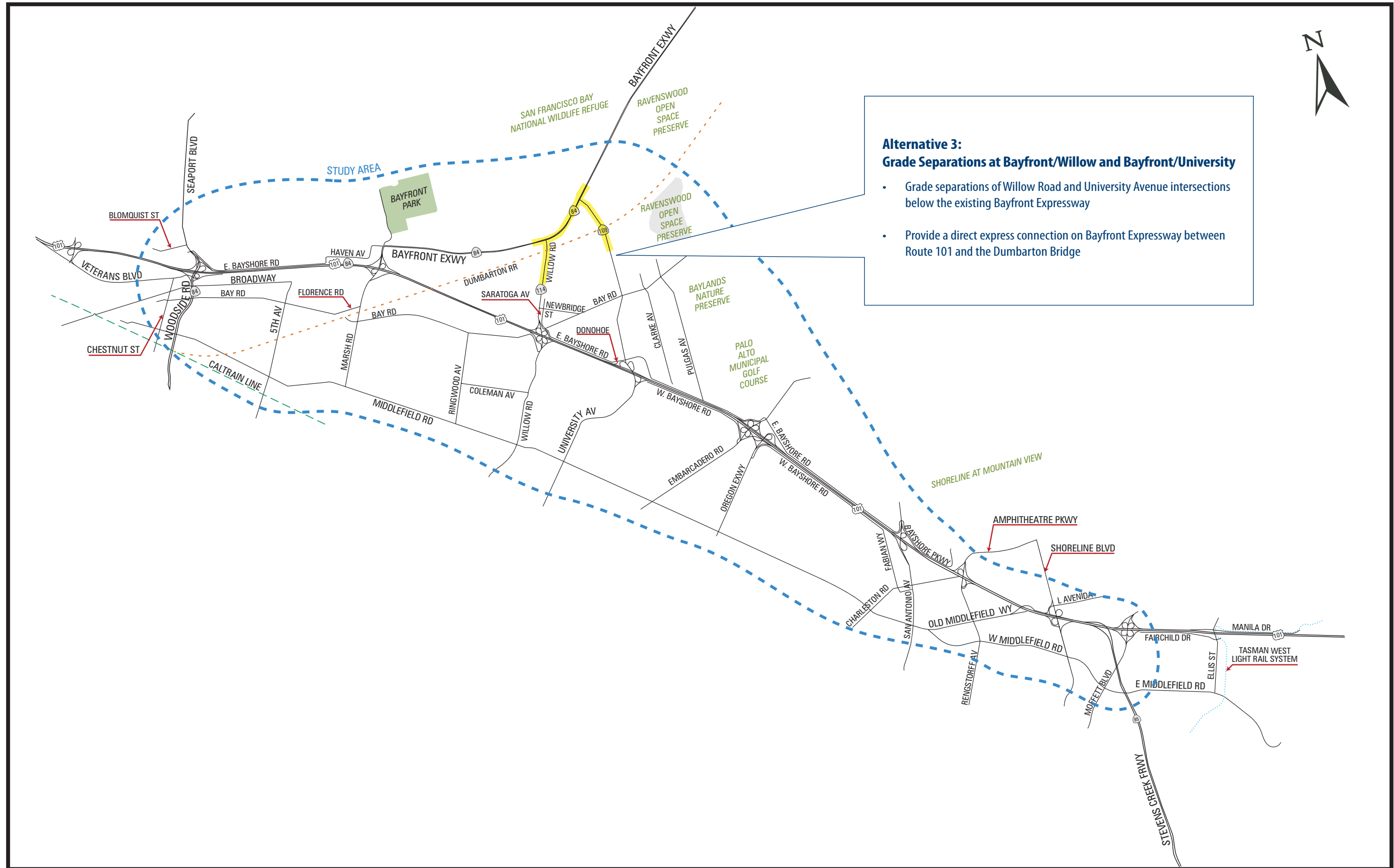
At the north end connection, commuters going southbound would enter a widened Highway 101 off ramp to Woodside Road and connect via flyover ramp to the elevated structure. Commuters going northbound on the elevated structure would touch down via flyover ramp to Highway 101 just after the Woodside Road Interchange, merging into the existing auxiliary lane.

At the south end, commuters going northbound would connect via flyover ramp from the Old Middlefield Way Overcrossing to the elevated structure. Commuters going southbound on the elevated structure would touch down via flyover ramp to Highway 101, below the Old Middlefield Way Overcrossing and merging to an existing auxiliary lane.

Additional right-of-way would be required where the flyover ramps touch down and merge to Highway 101.

Alternative 3: Grade Separations at Bayfront/Willow and Bayfront/University. This alternative would grade separate both Willow Road and University Avenue intersections below the existing expressway, essentially creating a freeway segment with full control of access that would benefit regional traffic connecting between the Dumbarton Bridge and Highway 101 in both directions. The location of this improvement is shown in **Figure 8**. Additional details are available in a sketch in Appendix C. The alternative would provide a direct express connection on Bayfront Expressway between Highway 101 and the Dumbarton Bridge, with uninterrupted traffic flow on the stretches of highway that would normally be delayed by signalized intersections at Willow Road and University Avenue. Also, this alternative would provide a direct connection from westbound Bayfront Expressway to Willow Road and Bayfront to University Avenue via flyover ramps. Although this alternative only includes a railroad grade separation on Willow Road at the Union Pacific/Dumbarton Rail tracks, a similar facility could be included at University. All other traffic would utilize the depressed intersections to make similar movements as they would now.

Alternative 4: Short-term Operational Improvements on Willow Road – An evaluation of existing peak hour traffic conditions confirmed that Willow Road traffic operates satisfactorily (LOS D or better) between Newbridge Street and the Bayfront Expressway, although cross-street traffic experiences significant delays at all intersections. However, traffic conditions at Newbridge Street are poor (LOS E) during a.m. and p.m. peak hours, and at Bayfront Expressway are poor (LOS F) during the p.m. peak hour. Traffic signals are coordinated, which provides some benefit in both directions during both peak hours.

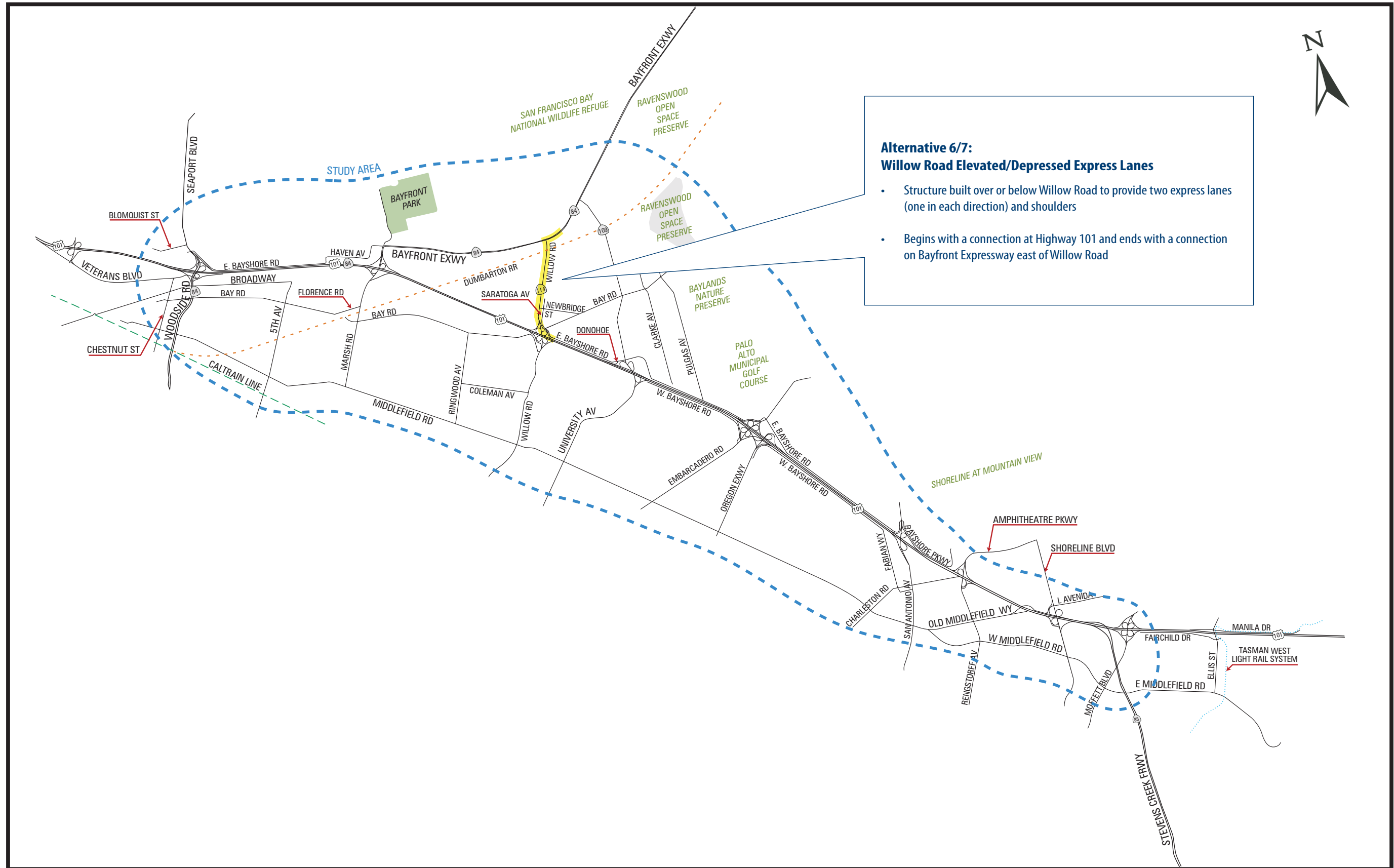


Additional operational analysis indicated that signal timing could be modified to reduce delay to certain critical movements at all signalized intersections, thereby improving traffic conditions during the peak periods. Most of the benefit would come from reducing cycle length from 130 seconds to 100 seconds at four intersections (Hamilton, Ivy, O'Brien, and Newbridge). In addition, allowing Willow left turns to operate in permitted mode (i.e. not protected as current) at Hamilton would reduce delay for these movements. Also, restriping and minor widening on the southbound Ivy approach to Willow and implementing overlap phasing would reduce delay for this movement and the Willow left turn movements.

Alternative 6: Willow Road Elevated Express Lanes – This alternative would include an aerial structure over Willow Road to provide two express lanes (one each direction) and shoulders, beginning with an aerial connection at Highway 101 and ending with an aerial connection on Bayfront Expressway east of Willow Road. It is noted that the capacity of the express lanes was defined for testing purposes, and future analyses would be necessary to evaluate whether additional express lane capacity would be required. **Figure 9** shows the location of this improvement and the sketch in Appendix C provides more details. The intent of this improvement is to remove some bridge traffic from Willow Road, which would enhance local traffic access and operations as well as improve travel time for bridge traffic by reducing delay at intersections. The initial definition has the existing Willow Road remaining much the same as it is now (four lanes with turn lanes), which is conservative given that four lanes at-grade may not be needed to serve local traffic.

Right-of-way acquisition for this alternative would be minimal along Willow Road, although some property will be required near the Highway 101 and Bayfront Expressway conforms to provide for the aerial connections.

Alternative 7: Willow Road Depressed Express Lanes - This alternative, a variation of Alternative 6, would include a depressed trench structure below Willow Road to provide two express lanes (one each direction) and shoulders, beginning with underground portals at Highway 101 and ending with underground portals on Bayfront Expressway east of Willow Road. It is noted that the capacity of the express lanes was defined for testing purposes, and future analyses would be necessary to evaluate whether additional express lane capacity would be required. The intent of this improvement is to remove some bridge traffic from Willow Road, which would enhance local traffic access and operations as well as improve travel time for bridge traffic by reducing delay at intersections. The initial definition has the existing Willow Road remaining much the same as it is now (four lanes with turn lanes), which is conservative given that four lanes at-grade may not be needed to serve local traffic. This cross-section will require acquisition of right-of-way strips on each side of Willow Road, and near Highway 101 and Bayfront Expressway conforms to provide for the underground connections.



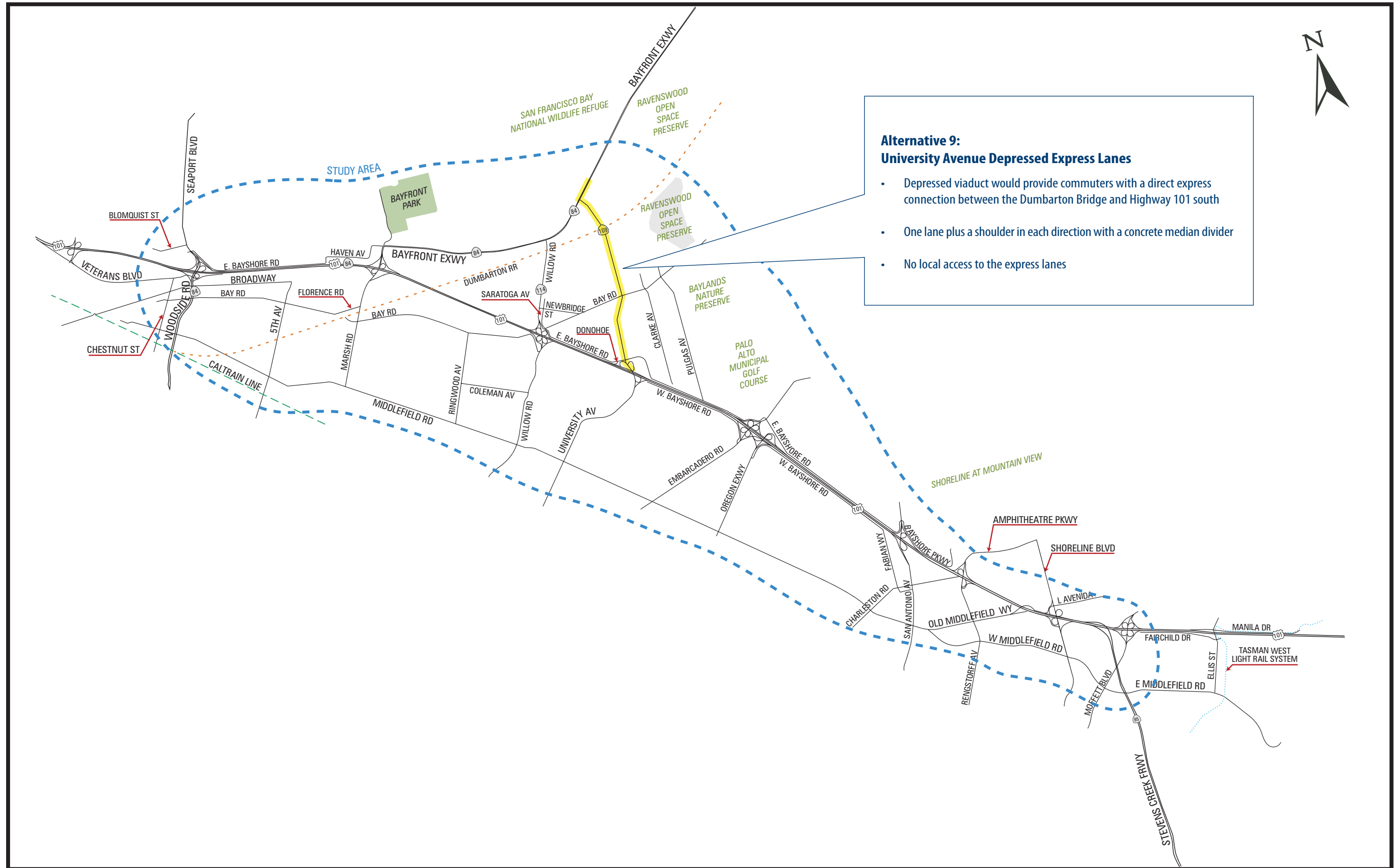
A second option, aimed at reducing right-of-way acquisition, would slide the surface lanes on each side of the viaduct partly over the viaduct via a cantilevered concrete “shelf” atop each retaining wall.

Alternative 8: Short-term Operational Improvements on University Avenue – The City of East Palo Alto received a grant from MTC under the Regional Signal Timing Program (RTSP) to evaluate the University Avenue corridor. The preliminary findings of this study indicate coordination of all signals on University Avenue is desirable and should be implemented (TY LIN International/CCS, University Avenue Signal Timing Project, Draft Recommendations Report, December 28, 2004). Therefore, signal coordination will be included in this alternative.

KHA focused additional inspection of the a.m. and p.m. peak period traffic analysis on University Avenue between Donohoe Street and O’Brien Drive, where peak hour traffic conditions are generally satisfactory (LOS C or better), with the exception of the Bay Road intersection, which exhibits LOS F in the a.m. peak hour. It was noted that cross-street movements and left turn movements from University Avenue were generally poor (LOS E or worse).

Additional operational analysis indicated that signal timing could be modified to reduce delay to certain critical movements at all signalized intersections, thereby improving traffic conditions during the peak periods. Most of the benefit would come from reducing cycle length from 120 seconds to 60 seconds at all intersections except Bay Road, and leaving Bay Road at its current cycle length of 120 seconds. This practice of “half-cycling” some of the intersections is a customary way to improve traffic conditions where long cycles are not necessary to serve relatively small critical traffic movements. In addition, modifying the signal phasing to allow eastbound left turns at O’Brien, Notre Dame, and Kavanaugh to operate in permitted mode would reduce delay for these movements. Finally, at Bay Road, changing the configuration for northbound Bay Road to eliminate the shared through/left lane (replace with a through lane) would reduce delay for westbound movements.

Alternative 9: University Avenue Depressed Express Lanes – This alternative would include a depressed viaduct through the University Avenue corridor would provide commuters with a direct express connection (one lane each direction) between the Dumbarton Bridge and Highway 101 south. It is noted that the capacity of the express lanes was defined for testing purposes, and future analyses would be necessary to evaluate whether additional express lane capacity would be required. The location of this alternative is shown in **Figure 10**, and additional details are contained in a sketch in Appendix C. The depressed viaduct would run down the center of University Avenue, about 6 meters below grade, from the Dumbarton Rail Corridor in the north to Bell Street in the south. At the north end, the depressed viaduct would rise up to grade between the railroad tracks and Bayfront Expressway and connect to Bayfront east via on and off direct-connect flyover ramps. At the south end, the viaduct would rise up to grade between Bell Street and Donohoe Street and



**Alternative 9:
University Avenue Depressed Express Lanes**

- Depressed viaduct would provide commuters with a direct express connection between the Dumbarton Bridge and Highway 101 south
- One lane plus a shoulder in each direction with a concrete median divider
- No local access to the express lanes

connect to Highway 101 south via on and off direct-connect flyover ramps. Local streets would cross over the viaduct on at-grade bridges.

The viaduct would have one lane plus a shoulder in each direction with a concrete median divider. No local access would be provided to the viaduct. Due to the narrow public right-of-way along the University Avenue corridor, the depressed viaduct would require vertical retaining walls on each side. At the surface there would be a second lane in each direction, immediately adjacent to the top of each retaining wall, with shoulder and sidewalk for local traffic traveling along the University Avenue corridor. The local lanes would still connect directly to Bayfront Expressway and Donohoe Street to allow for local access to the Dumbarton Bridge and Highway 101 as currently exists today.

With this configuration, a narrow strip of additional right-of-way would be required on each side of the existing University Avenue corridor. Right of way would also be required along the West Bayshore frontage road just south of the Highway 101/University Avenue interchange to allow room for the southbound flyover ramp to touch down. East Bayshore Road on the opposite side of Highway 101 would have to be narrowed to allow room for the northbound flyover ramp to exit Highway 101 on its way to the viaduct. At the north end of the viaduct, additional right-of-way would be required in the southeast quadrant of the University/Bayfront intersection for the flyover ramps. Some minor impacts would be expected on property that may be wetland where the flyover ramps touch down on either side of Bayfront Expressway.

A second option, evaluated to eliminate right-of-way take on University Avenue, would slide the surface lane on each side of the viaduct partly over the viaduct via a cantilevered concrete “shelf” atop each retaining wall. With this option, the right-of-way takes along University Avenue could be eliminated, but the right-of-way takes at each end would still be required.

B. Concept Level Cost Estimates

The Cost Estimate Summary Table summarizes the concept level cost estimates for the alternative projects in Year 2006 dollars. The cost estimate is broken down into three primary categories: (1) construction cost, (2) right of way cost, and (3) engineering support cost. Details of the cost estimating procedures and findings are included in Appendix D.

Cost Estimate Summary Table

Alternative Name	Construction Cost	R/W Cost	Support Cost	Total Project Cost 2006 \$
1. Route 101 Auxiliary Lanes	\$57 M	\$20 M	\$28 M	\$105 M
2. Route 101 Elevated	\$900 M	\$80 M	\$230 M	\$1,210 M
3. Bayfront Expressway Grade Separations	\$180 M	\$67 M	\$86 M	\$333 M
4. Willow Rd. Short Term	\$0.09 M	\$0 M	\$0.03 M	\$0.12 M
6. Willow Rd. Elevated Express Lanes	\$96 M	\$33 M	\$46 M	\$175 M
7. Willow Rd. Depressed w/ Cantilever	\$230 M	\$33 M	\$110 M	\$373 M
8. University Ave. Short Term	\$0.18 M	\$ 0 M	\$0.09 M	\$0.27 M
9. University Ave. Depressed w/ Cantilever	\$440 M	\$64 M	\$200 M	\$704 M

C. Future Traffic Forecasts

A series of traffic forecasts, prepared by C/CAG through its Consultant, Hexagon Transportation Consultants, were conducted to establish no-build and build peak period traffic volumes and volume-to-capacity ratios for year 2025. The intent was to provide enough data to help evaluate the relative differences between alternatives and not provide all the details of the travel model network that Caltrans, for example, would need to evaluate no-build and build conditions for specific improvements in a formal Project Study Report (PSR) or Project Approval/ Environmental Document (PA/ED) process. For reference, Appendix E includes details of the travel model results and a summary of the validation of base year conditions and future year 2025 results.

D. Traffic Benefits

The traffic forecasts were analyzed and reviewed with the TAC. The following points highlight the forecasted volumes and volume/capacity ratio changes under each "Build" alternative relative to "No-Build" conditions.

- **Alternative 1** would increase traffic volumes on Highway 101 where the auxiliary lanes are added and the net increase in capacity there would result in small reductions in v/c ratios. On balance, this indicates a net benefit.
- **Alternative 2** would increase Highway 101 traffic demand by 8,000 to 9,000 peak period vehicles in each direction -- in the express lanes -- and draw additional traffic demand to

Highway 101. Like in the at-grade lanes, volumes would exceed capacity in the express lanes. Small changes in volumes and v/c ratios are shown for the at-grade lanes on Highway 101. The increase in throughput would be a benefit, but the v/c ratios indicate continued delay for all vehicles. There is evidence that the model diverted some traffic from cross streets to the express lanes, which is to be expected given the express lanes provide enhanced travel time through a long segment of Highway 101 (see University Avenue, Embarcadero Road, and Oregon Expressway). One concern that would have to be addressed in future project development activities is the potential for this kind of project to move a bottleneck to a point downstream of the express lane touchdown.

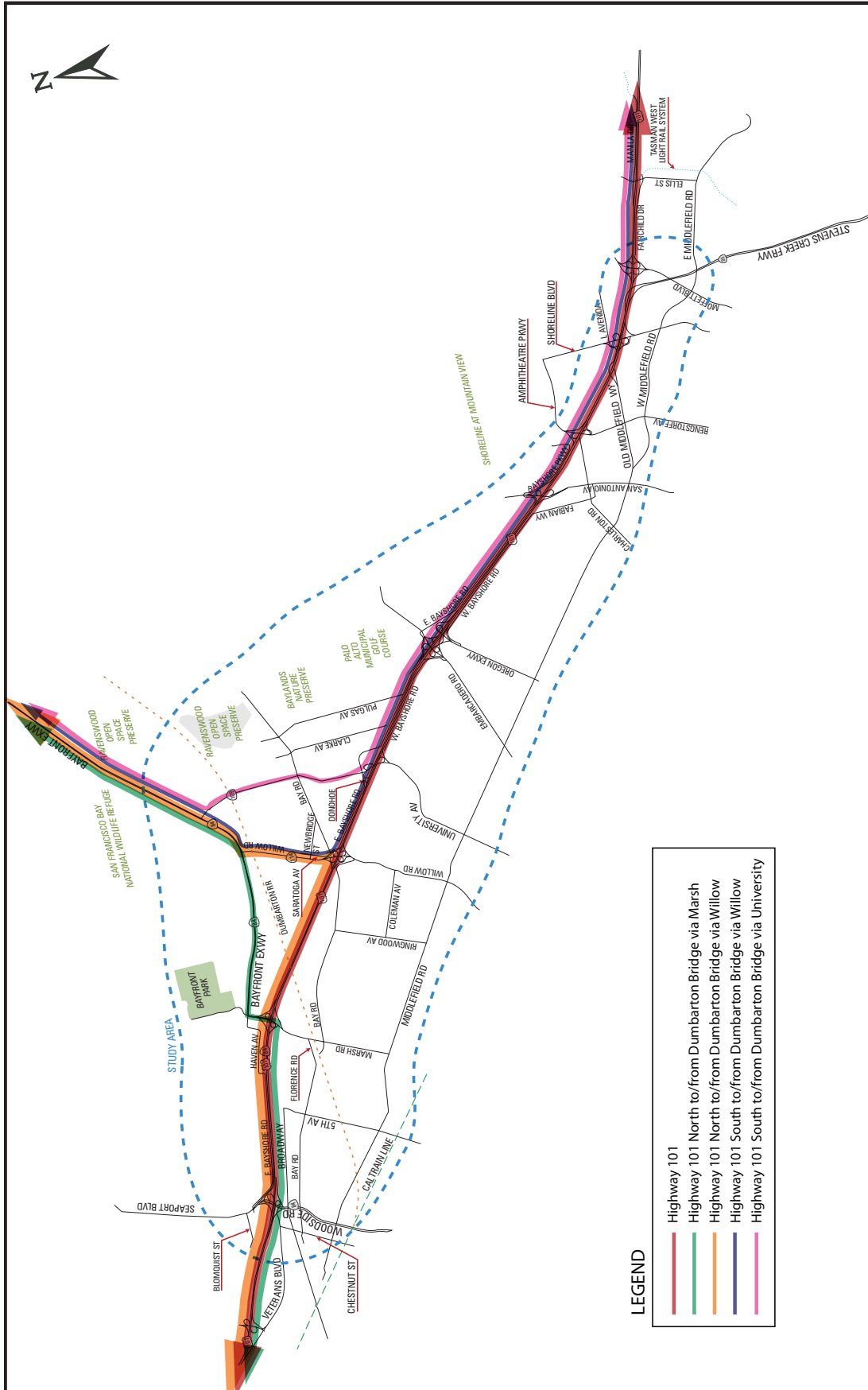
- **Alternative 3** would increase in peak period traffic on Bayfront Expressway east of University, on Willow Road during both peak periods, and on University Avenue in the a.m. peak period. The model also projected increases in peak period traffic on Clarke and Pulgas, which is evidence that additional capacity at the Bayfront Expressway intersections will draw traffic through residential streets as well as University Avenue. Corresponding changes in v/c ratios were noted.
- **Alternative 6 or 7** would result in a net increase in traffic on Willow Road due to the express lanes but decreases or small increases in at-grade traffic. Corresponding improvements are shown in v/c ratios for the at-grade facility. The express lanes do generate strong peak direction demands that exceed capacity, which suggests that additional capacity should be considered in the peak direction. Also noted are the reductions in peak period traffic and v/c ratios on University under these alternatives, which would be beneficial. Also notable are some small decreases in peak period traffic on Clarke and Pulgas.
- **Alternative 9** shows similar impacts on University as found for Willow under Alternatives 6/7 – net increases in total peak period traffic due to the express lanes and reductions in peak period traffic for the at-grade facility. Also noted are the reductions in traffic volumes and v/c ratios on Willow, which also are seen as beneficial, and more important to East Palo Alto, reductions in peak period traffic on Clarke and Pulgas.

Generally, each alternative shows beneficial impacts compared to the no-build condition.

To further understand the potential impacts and benefits of these alternatives, a special traffic analysis tool called ALPS2000, which was developed by KHA, was used to evaluate typical performance measures, such as travel times, speeds, and delay, for key travel paths in the Study Area for a 24-hour period. **Figure 11** illustrates the travel paths that were evaluated, which reflect the key movements that this Study is addressing.

The preliminary results of this operational analysis indicated that travel time was the most important and easily understood measure. The following points summarize preliminary observations drawn from the travel time comparisons. Appendix F provides additional information and details of this analysis.

- Alternatives 1 and 2 show benefits on Highway 101.
- Alternative 3 shows benefits for movements to and from the bridge.
- Alternatives 6 & 7 show benefits for Willow Road traffic using the bridge.
- Alternative 9 shows benefits for University Avenue traffic using the bridge.



E. Potential Environmental and Social Impacts

This section discusses the potential environmental and social impacts of each alternative and **Table 2** summarizes these issues in a matrix form for easy comparison.

Alternative 1: Highway 101 Auxiliary Lanes. This alternative would construct auxiliary lanes on Highway 101 between Embarcadero Road in Palo Alto and Shoreline Boulevard in Mountain View. It would include modifications to the existing Highway 101/San Antonio Road interchange to allow access to southbound Highway 101 from San Antonio Road. Except at the San Antonio Road interchange, the work would occur within the existing freeway and adjacent frontage road rights-of-way.

Auxiliary lane projects of this type are quite common and typically result in non-significant environmental impacts or impacts that can be readily mitigated. Noise impacts are typically minimal. Existing soundwalls may be reconstructed or, where no soundwalls are present to protect sensitive receptors (e.g., residences), new soundwalls would be built.

Visual impacts would be negligible because no new structures would be constructed.

Additional right-of-way would be required to construct the new on-ramp to southbound Highway 101 at San Antonio Road. This right-of-way *may* impact an existing commercial building on Transport Street in Palo Alto.

This alternative *may* require the widening of the existing Highway 101 bridges over Adobe Creek and Matadero Creek. Depending upon the scope of the widening and the degree of impact existing vegetation, some replacement habitat may be required. Such mitigation is a standard requirement on many bridge widening projects and should not pose a significant constraint to this alternative.

Alternative 2: Highway 101 Elevated Express Lanes. This alternative would construct elevated express lanes on Highway 101 between Woodside Road in Redwood City and Old Middlefield Way in Mountain View. The elevated express lanes would be located above the median of the freeway, with an approximate height of 20 feet above existing grade between interchanges, rising to an approximate height of 40 feet above existing grade at interchanges and railroad crossings. Flyover ramps would be required at each end of the express lanes to provide a transition to/from the lanes. Except where the flyover ramps touch down and merge onto the Highway 101 freeway, the work would occur within the existing freeway and adjacent frontage road rights-of-way.

Construction of an elevated structure, roughly eight miles in length, with heights ranging from 20 to 40 feet, would create a significant and unmitigable visual impact. The visual impact would occur, not only for thousands of people who live and work along the Highway 101 corridor, but also for the users of the existing lanes on the freeway. The elevated structure would be visible well above the tops of existing

ID Code	Alternative	Visual and Aesthetic	Noise	Biological Resources	Right-of-Way	Other Issues/Note(s)
1	Route 101 Auxiliary Lanes	Negligible impact	Minimal impact	Possible impact at crossing of Adobe & Matadero Creeks	One building may be impacted at 101/San Antonio interchange	Would likely qualify for a Mitigated Negative Declaration.
2	Route 101 Elevated Express Lanes	Significant and unmitigable impact	Significant impact; would require sound-walls on elevated structure	Possible impact at crossing of Adobe & Matadero Creeks	Minimal impact; no acquisition of businesses or residences	Major environmental issues; strong opposition likely; full EIR required.
3	Grade Separations on Bayfront Expressway	Less-than-significant impact	Less-than-significant impact	Impacts to wetlands at edge of Bay	Reconfiguration of access and parking at Sun Microsystems	Would impact recreational trail along Bayfront; BCDC permit needed; full EIR likely required.
4	Short-term operational improvements on Willow Road	None	None	None	None	Would likely qualify for a Categorical Exemption
6	Willow Road Elevated Express Lanes	Significant and unmitigable impact	Significant impact; would require sound-walls on elevated structure	Less-than-significant impact	Minimal impact; no acquisition of businesses or residences	Major environmental issues; strong opposition likely; full EIR required.
7	Willow Road Depressed/Cantilevered Express Lanes	Less-than-significant impact	Less-than-significant impact	Less-than-significant impact	Minimal impact; no acquisition of businesses or residences	Would impact Hetch-Hetchy pipelines; presence of Bay mud will affect trench design/cost; trench will need a system for dewatering of stormwater & groundwater; full EIR may be required.
8	Short-term operational improvements on University Avenue	None	None	None	None	Would likely qualify for a Categorical Exemption
9	University Avenue Depressed/Cantilevered Express Lanes	Less-than-significant impact	Less-than-significant impact	Some impact to wetlands at edge of Bay	Minimal impact; no acquisition of businesses or residences	Would impact Hetch-Hetchy pipelines; presence of Bay mud will affect trench design/cost; trench will need a system for dewatering of stormwater & groundwater; full EIR may be required.

soundwalls (maximum soundwall heights are 16 feet), and would block or interfere with views from numerous locations. The elevated structure, in combination with the existing freeway, soundwalls, and overpasses, would constitute a significant visual and aesthetic barrier in the portions of Redwood City, Menlo Park, East Palo Alto, Palo Alto, and Mountain View through which the Highway 101 freeway passes. Signs and lighting on the structure would increase this impact, as would soundwalls, which are discussed in the following paragraph.

This alternative would likely result in significant noise impacts along the entire length of the express lanes because the lanes would be elevated substantially above the tops of existing soundwalls. Noise from traffic using these high-speed lanes would have a direct and generally unobstructed path into adjacent areas, such areas that include thousands of residences, as well as schools and parks. Soundwalls with heights of up to 12 feet could be constructed on the elevated structure, but such walls would exacerbate the above-described significant visual and aesthetic impacts of this alternative.

The additional right-of-way necessary at the two ends of the express lanes is not expected to require the acquisition of any residences or businesses.

This alternative *may* require the widening of the existing Highway 101 bridges over Adobe Creek and Matadero Creek. Depending upon the scope of the widening and the degree to which any existing vegetation may be impacted, some replacement habitat may be required. Such mitigation is a standard requirement on many bridge widening projects and should not pose a significant constraint to this alternative.

Alternative 3: Grade Separations on Bayfront Expressway. Alternative 3 would grade-separate the Bayfront Expressway intersections with Willow Road and University Avenue. The two intersections would be depressed below the existing expressway. Connections between the expressway and the local streets would be made with a combination of flyover ramps, ramps, and frontage roads. The entrances to the Sun Microsystems campus would be reconfigured to improve access to/from that facility. The existing crossing of the UPRR on Willow Road would be grade-separated.

The improvements contemplated under this alternative would occur in a non-residential area where the existing uses are industrial and open space/wetlands/parks. Right-of-way needed for the improvements would, as noted above, require a reconfiguration of access and parking at Sun Microsystems. Right-of-way required to grade-separate the University Avenue/Bayfront Expressway intersection and construct the necessary flyover ramps would most likely affect the adjacent wetlands. Given the ecological importance of these wetlands along the edge of San Francisco Bay, including the presence of several threatened/ endangered species, such impacts would be significant. Mitigation, typically in the form of replacement habitat, would be required. Wetlands impacts will require permits from and/or coordination with the Army Corps of Engineers (ACOE), U.S. Fish & Wildlife

Service (USFWS), California Department of Fish & Game (CDFG), and the Regional Water Quality Control Board (RWQCB).

The noise impacts of this alternative are not likely to be significant. This statement is based on 1) the lack of sensitive receptors adjacent to the improvements, and 2) the fact that portions of Willow Road and University Avenue will be depressed, which tends to reduce noise impacts.

Visual impacts will occur due to the need to construct flyover ramps at both Willow Road and University Avenue. However, such impacts would not likely be significant due to the lack of public vantage points in the area. For example, there are no adjacent residential areas where scenic views would be blocked by the elevated ramps.

The inclusion of pump stations at the depressed intersections will prevent roadway flooding.

There are existing paved recreational paths along both side of Bayfront Expressway in the vicinity of Willow Road and University Avenues. These paths would be impacted by the proposed improvements. Replacement paths will be required.

Portions of the improvements that are part of this alternative appear to be within the jurisdiction of the Bay Conservation and Development Commission (BCDC). BCDC jurisdiction includes all areas within 100 feet of the shoreline of San Francisco Bay. Therefore, a BCDC permit may be required in order to construct this alternative.

Alternative 4: Short-Term Improvements on Willow Road. Alternative 4 would consist of minor improvements on Willow Road between Route 101 and the Bayfront Expressway to improve traffic operations. Improvements would include modification of traffic signal timing, restriping of lanes, and minor widening at one approach to the Willow/Ivy intersection.

The environmental effects of these improvements would be negligible because the improvements can be categorized as minor modifications to existing facilities. The only physical component of the project would be minor widening within the existing right-of-way at the Willow/Ivy intersection. Such widening would not adversely affect adjacent land uses. The only impact of the other components of this alternative (i.e., signal timing and restriping) would be a beneficial effect on traffic operations.

Alternative 4 improvements would likely qualify for a Class 1 (Existing Facilities) Categorical Exemption (CE) under CEQA.

Alternative 6: Willow Road Elevated Express Lanes. This alternative would construct elevated express lanes on Willow Road between Highway 101 and the Bayfront Expressway. The elevated express lanes would be located on a structure above the median of Willow Road. The height of the structure would be approximately 20 feet above existing grade, except at the Highway 101/Willow interchange where a greater height would be required. Flyover ramps would be required at each end of the express lanes to provide a transition to/from the lanes. With the exception of where

the flyover ramps touch down and merge onto Highway 101 and the Bayfront Expressway, the work would require only minimal right-of-way.

Similar to Alternative 2, construction of an elevated structure along Willow Road, roughly one mile in length, would create a significant and immitigable visual impact. The visual impact would occur, not only for people who live and work along the Willow Road corridor, but also for the users of the existing lanes on Willow Road. The elevated structure would be visible from the residences in Menlo Park and East Palo Alto that are located along Willow Road. The elevated structure would also be visible from the residences in Menlo Park and East Palo Alto that are located along Highway 101 near the Highway 101/Willow Road interchange. In addition to the visual effect, such structures tend to exacerbate the “divided feeling” that occurs when major transportation facilities transect local communities. Signs and lighting on the structure would increase this impact, as would soundwalls, which are discussed in the following paragraph.

This alternative would likely result in significant noise impacts along the entire length of the express lanes because the lanes would be elevated substantially above existing grade. Noise from traffic using these high-speed lanes would have a direct and generally unobstructed path into adjacent areas, such areas which include hundreds of residences. Soundwalls with heights of up to 12 feet could be constructed on the elevated structure, but such walls would emphasize the above-described significant visual and aesthetic impacts of this alternative.

The additional right-of-way necessary at the two ends of the express lanes is not expected to require the acquisition of any residences or businesses.

Alternative 7: Willow Road Depressed Express Lanes with Cantilevered Frontage. This alternative would construct depressed express lanes on Willow Road, partly sliding the surface lanes over the top of the trench containing the express lanes, which is presently the median of Willow Road. The cantilevering of the lanes partially over the trench would reduce the cross-section, which in turn, would reduce right-of-way requirements.

A substantial loss of parking along both sides of Willow Road would be largely avoided with this alternative given the cantilever design. Further, impacts to existing trees and landscaping would also be reduced.

Noise impacts would be largely self-mitigating because the walls of the trench would function like soundwalls. This is based also on the fact that the lanes carrying local traffic would not be as close to the adjacent land uses.

By depressing the express lanes, there would be no significant visual and aesthetic impact. However, the depressed express lanes would conflict with the Hetch-Hetchy Water Lines, which cross under Willow Road at Ivy Drive. The water lines would need to be relocated. A trench would require a system of drains and pump stations for the removal of stormwater, as well as to mitigate for the effects of high groundwater.

The presence of Bay muds along the alignment, soils that are relatively unstable, means that additional measures will need to be considered for the purpose of engineering a safe facility. Although this condition would not preclude the construction of this alternative, the engineering solutions could be costly.

Any archaeological sites located along this corridor would likely sustain greater impacts with a depressed alternative than with an elevated design. According to the regional clearinghouse located at Sonoma State University, there are such sites located in the area. However, the importance of these sites, as well as any impacts to them, cannot be ascertained without further study.

Alternative 8: Short-Term Improvements on University Avenue. For the purpose of improving traffic operations, Alternative 8 would consist of minor improvements on University Avenue between Route 101 and the Bayfront Expressway. Improvements would include the interconnection of traffic signals, signal timing modifications, and the restriping of various turning lanes at intersections.

The environmental effects of these improvements would be negligible because the improvements can be categorized as minor modifications to existing facilities. There are no physical components of this alternative (e.g., street widening). The only impact of this alternative would be a beneficial effect on traffic operations.

Alternative 8 improvements would qualify for a Class 1 (Existing Facilities) Categorical Exemption (CE) under CEQA.

Alternative 9: University Avenue Depressed Express Lanes with Cantilevered Frontage. This alternative would construct depressed express lanes on University Avenue, partly sliding the surface lanes over the top of the trench containing the express lanes. The cantilevering of the lanes partially over the trench would reduce the cross-section, which in turn, would reduce right-of-way requirements.

Noise impacts would be largely self-mitigating because the walls of the trench would function like soundwalls. This is based also on the fact that the lanes carrying local traffic would not be as close to the adjacent land uses.

By depressing the express lanes, there would be no significant visual and aesthetic impact. However, the depressed express lanes would conflict with the Hetch-Hetchy Water Lines, which cross under University Avenue east of Bay Road. The water lines would need to be relocated. A trench would require a system of drains and pump stations for the removal of stormwater, as well as to mitigate for the effects of high groundwater.

Depending upon the footprint and design of the new ramps that will connect the express lanes to Bayfront Expressway, some impacts to adjacent wetlands may occur. Although such impacts would not likely be extensive, the filling of any wetlands at this location would be significant and mitigation would be required. Wetlands impacts will require permits and/or coordination with the ACOE, USFWS, CDFG, and the RWQCB.

The presence of Bay muds along the alignment, soils that are relatively unstable, means that additional measures will need to be considered for the purpose of engineering a safe facility. Although this condition would not preclude the construction of this alternative, the engineering solutions could be costly.

Any archaeological sites located along this corridor would likely sustain greater impacts with a depressed alternative than with an elevated design. According to the regional clearinghouse located at Sonoma State University, there are such sites located in the area. However, the importance of these sites, as well as any impacts to them, cannot be ascertained without further study.

The eastern portion of this alternative appears to be within 100 feet of the shoreline of the Bay. Therefore, a BCDC permit will likely be required.

F. Comparison of Solutions

Having completed assessments of traffic benefits, cost estimates, and potential environmental impacts, a comparison chart was created to show contrast between the alternatives. This comparison is summarized in **Table 3**.

The following points summarize observations drawn from this effort.

- Highway 101 Auxiliary lanes show benefit in the northbound direction and with respect to commute traffic on residential streets, and minimal environment impacts.
- Highway 101 Express Lanes show significant travel time benefits, high costs and some significant visual/aesthetic impacts.
- Grade separations on Bayfront Expressway show benefits for traffic using Bayfront Expressway but some disbenefit relative to commute traffic on residential streets.
- Short-term improvements on Willow and University show minor traffic benefits, low cost, and no environmental impacts.
- Willow Road Express Lanes show travel time benefits and residential commute traffic benefits; the depressed variation shows minimal environment impacts but does indicate some potential sub-grade issues.
- University Avenue Depressed Express Lanes show benefits relative to travel time and commute traffic on residential streets, minimal environmental impacts but some potential sub-grade impacts. Travel time benefits were found to be substantially lower than for the Willow Road Express lanes, apparently due to the combined effect of longer arterial length and overall surface (local access) capacity reduction.

ID Code	Alternative	Location	Traffic Benefits			Cost Estimate Summary (2006\$)				Potential Environmental Impacts by Alternative				
			Change in Vehicle Hours of Travel <i>(Typical weekday, 6 a.m. to 6 p.m.)</i>	Decrease commute traffic on residential streets? <i>(Expressed change in peak period traffic volume)</i>		Construction Cost	Right-of-Way Cost	Support Cost	Total Project Cost	Visual/Aesthetics	Noise	Biological Resources	Right-of-Way	Other Issues
				Clarke	Pulgas									
1	Route 101 Auxiliary Lanes	MV, PA	-4,135	-200 (-10%)	-100 (-10%)	\$57 M	\$20 M	\$28 M	\$105 M	Negligible Impacts	Minimal Impact	Possible impact at crossing of Adobe & Matadero Creeks	One building may be impacted at 101/San Antonio interchange	Would likely qualify for an Mitigated Negative Declaration
2	Route 101 Elevated Express Lanes	MV, PA, EPA, MP, RC	-18,472	0	0	\$900 M	\$80 M	\$230 M	\$1,210 M	Significant and unmitigable impact	Less than significant impact given soundwalls would be built on elevated structure	Possible impact at crossing of Adobe & Matadero Creeks	Minimal impact; no acquisition of businesses or residences	Major environmental issues; strong opposition likely; full EIR required
3	Grade Separations on Bayfront Expressway	EPA, MP	-7,811	+200 (+10%)	+100 (+10%)	\$180 M	\$67 M	\$86 M	\$333 M	Less-than-significant impact	Less-than-significant impact	Impacts to wetlands at edge of Bay	Reconfiguration of access and parking at Sun Microsystems	Would impact recreational trail along Bayfront; BCDC permit needed; full EIR likely required
4	Short-term operational improvements on Willow Road	EPA, MP	minor	minor	minor	\$0.09 M	\$0 M	\$0.03 M	\$0.12 M	None	None	None	None	Would likely qualify for a Categorical Exemption
6	Willow Road Elevated Express Lanes	EPA, MP	-4,945	-100 (-5%)	-100 (-10%)	\$96 M	\$33 M	\$46 M	\$175 M	Significant and unmitigable impact	Significant impact; would require soundwalls on elevated structure	Less-than-significant impact	Minimal impact; no acquisition of businesses or residences	Major environmental issues; strong opposition likely; full EIR required
7	Willow Road Depressed/Cantilevered Express Lanes	EPA, MP	Same as Alt 6	Same as Alt 6	Same as Alt 6	\$230 M	\$33 M	\$110 M	\$373 M	Less-than-significant impact	Less-than-significant impact	Less-than-significant impact	Minimal impact; no acquisition of businesses or residences	Would impact Hetch- Hetchy pipelines; presence of Bay mud will affect trench design/cost; trench will need a system for dewatering of storm water & groundwater; full EIR may be required
8	Short-term operational improvements on University Avenue	EPA	minor	minor	minor	\$0.18 M	\$0 M	\$0.09 M	\$0.27 M	None	None	None	None	Would likely qualify for a Categorical Exemption
9	University Avenue Depressed/Cantilevered Express Lanes	EPA	-1,313	-200 (-10%)	-200 (-20%)	\$440 M	\$64 M	\$200 M	\$704 M	Less-than-significant impact	Less-than-significant impact	Some impact to wetlands at edge of Bay	Minimal impact; no acquisition of businesses or residences	Would impact Hetch- Hetchy pipelines; presence of Bay mud will affect trench design/cost; trench will need a system for dewatering of storm water & groundwater; full EIR may be required

Location Key

EPA	East Palo Alto	MP	Menlo Park	MV	Mountain View	PA	Palo Alto	RC	Redwood City
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-- = No Data Available

na = not applicable

One more measure was created to provide a preliminary indication of benefits versus costs. In this case, a ratio of 12 hour travel time benefits to \$ million of total cost was calculated for the high-capital alternatives. The results of the calculations are summarized in the table below (number shown is the ratio of 12 hour travel time benefits to total alternative cost).

ESTIMATED BENEFITS PER \$ MILLION OF TOTAL COST

ALTERNATIVE	DESCRIPTION	BENEFITS PER \$M TOTAL COST ¹
1	Highway 101 Auxiliary Lanes and Interchange Improvements	40
2	Highway 101 Elevated Express Lanes	15
3	Grade Separations at Bayfront/Willow and Bayfront/University	23
6	Elevated Express Lanes on Willow Road	28
7	Depressed/Cantilevered Express Lanes on Willow Road	13
9	Depressed/Cantilevered Express Lanes on University Avenue	2

¹ Value is the ratio of [change in vehicle travel time over 12 hours] to [total project cost in \$M].

III. Findings and Next Steps

A. Findings

Several improvements were defined and evaluated that would address the Study Goals. One project, Highway 101 Auxiliary Lanes, is now under project development based on the analysis conducted in this Study. The two Short-Term Operational Improvements are considered very positive and worthy of early implementation with fairly small investments.

Each of the projects in the “Universe of Alternatives” has been developed to the level of understanding necessary to complete the assessment of traffic benefit, level of cost, potential impacts due to visual, noise, environmental and right-of-way. With this information a prioritization process called next steps was undertaken and ideas for a Phase 2 study were documented.

B. Next Steps

The project sponsors were asked to comment on their desire regarding the next step for each of the 71 alternatives. The consensus was to place each alternative improvement into one of the following categories.

1. An opinion that the alternative should be referred to a specific agency and not considered directly by this group. This will require a follow-up and monitoring process to help maintain progress toward implementation.
2. An opinion that the alternative needed to proceed to Project Development and preliminary design. Project Development means that the project has sufficient support to proceed to a project study report in which alternatives and costs are further defined. Further categorization reflected the importance of certain projects in terms of implementation timing. If short-term development is desired, monies will need to be found to pursue the project. If long-term development is desired, then project funding is not as imminently necessary.
3. An opinion that the alternative should be studied further in Phase 2 of this study. Phase 2 study means that additional information is needed now to be able to make a recommendation to further develop this project concept. It may require some alternatives to be further developed, including deriving specific cost estimates or benefit/cost assessments, prior to recommending it for further development.
4. An opinion that the alternative should to be studied further before making an opinion as to whether to begin project development. There is not enough information about the project at this point to be able to refer it as a specific project for short-term or long-term development. This too may require some alternatives to be further developed, including deriving specific cost estimates or benefit/cost assessments, prior to recommending it for further development. This opinion was not an indication that there was not enough interest to promote this project concept to a Phase 2 study as a group; rather, it indicated a lower priority than improvements placed in Category 3.

5. An opinion that the alternative was not in keeping with the study objectives and should be removed from consideration by this group.

After the sponsors determined that there was sufficient information to share with the TAC, the same exercise was repeated with the TAC. Knowing the TAC's suggested categorization, the same exercise was performed for the PAC without sharing the TAC's opinions. The results were summarized in a second session with the PAC and the TAC reconciled the findings where there had been differences. The final results of this categorization process, based on feedback from the PAC, are summarized in the next section of this report.

C. Categorization

The TAC and PAC completed categorizing the 71 projects identified in the "Universe of Alternatives." One project has already been forwarded to Project Development. Several other projects are being recommended for Project Development. The "Universe of Alternatives" has been categorized as shown in **Table 4**.

Table 4
CATEGORIZATION RESULTS

ID	CATEGORY 1 IMPROVEMENTS	COMMENT
A	Route 101 Auxiliary Lanes	Referred to VTA; Studied as Alternative 1
D1	Widen freeway to 10 lanes (County Line to Shoreline)	Referred to VTA
I	Extend Bayfront Expressway to Woodside Road	Referred to Redwood City
BB	Pedestrian Overcrossing at Ivy Dr. (Willow Road)	Referred to Menlo Park
YY	Install transit signal priority to support high-patronage bus routes	Referred to VTA and SamTrans
G	Improve local access across Highway 101	Intent is to separate local and regional traffic using existing interchanges and address pedestrian and bicycle linkages across 101

ID	CATEGORY 2 IMPROVEMENTS	COMMENT
Q	Signal timing during peak travel periods (Willow)	Studied as Alternative 4
R	Prohibit left turns during peak travel periods (Willow)	
T	Exit/entrance right turn pockets on Willow (Willow)	
HH	Signal timing during peak travel periods (University)	Studied as Alternative 8

II	Prohibit left turns during peak travel periods (University)	
KK	Exit/entrance right turn pockets on Willow (University)	
XX	Install traffic signal interconnect/communications infrastructure between Middlefield Road and Highway 101	
ZZ	Install trailblazers and/or arterial CMS to provide route guidance information	
AAA	Prepare Incident Management and Traveler Information Plan for Corridor	
BBB	Study the possible designation of East Bayshore (San Antonio to University) as reliever route to provide congestion relief and for incident management on Highway 101	
CCC 1	Improve 101/University Interchange – Construct Phase 2 Improvements	
CCC 2	Improve 101/University Interchange – Improve on-off connections for northbound traffic	
DDD	Define residential traffic management elements that complement high-priority capital improvements	

ID	CATEGORY 3 IMPROVEMENTS	COMMENT
B	Reconstruct Embarcadero/Oregon Interchange	
C	Reconstruct San Antonio Interchange	Included in study with Alternative 1
H	Grade separations at Bayfront/Willow and Bayfront/University	Studied as Alternative 3; consider both together and separate.
J	Construct direct flyover connection between Bayfront/Marsh and Highway 101 north of Marsh	
DD 1	Depressed express lanes : 2 lanes each direction (Willow)	
DD 2	Depressed express lanes : 1 lane each direction (Willow)	
DD 3	Depressed express lanes : Reversible 2 lanes (Willow)	
DD 4	Depressed express lanes : 3 lanes with reversible middle lane (Willow)	
FF	Tunnel express lanes (maintain existing surface street) (Willow)	
GG	Modified depressed express lanes: 1 lane each direction (surface street cantilevered inboard to minimize frontage impacts) (Willow)	Studied as Alternative 7
TT 1	Depressed express lanes : 2 lanes each direction (University)	
TT 2	Depressed express lanes : 1 lane each direction (University)	
TT 3	Depressed express lanes : Reversible 2 lanes (University)	

TT 4	Depressed express lanes : 3 lanes with reversible middle lane (University)	
VV	Tunnel express lanes (maintain existing surface street) (University)	
WW	Modified depressed express lanes: 1 lane each direction (surface street cantilevered inboard to minimize frontage impacts) (University)	Studied as Alternative 9

ID	CATEGORY 5 IMPROVEMENTS	COMMENT
D2	Widen Highway 101 to 10 Lanes plus Auxiliary Lanes (County Line to Shoreline)	
E	Widen Highway 101 to 10 Lanes plus Auxiliary Lanes (Whipple to County Line)	
F	Build elevated lanes above Highway 101 from Woodside Road to Route 85/Highway 101 North Interchange Conform	Studied as Alternative 2
L	Elevated roadway along Dumbarton Rail Corridor between University and Highway 101	
M	New Route 84 to Highway 101 Connection through East Palo Alto (surface expressway through East Palo Alto)	
N	New Route 84 to Highway 101 Connection skirting East Palo Alto (expressway viaduct along edge of Bay)	
O	Tunnel beneath East Palo Alto (University Ave. to Highway 101)	
S	Prohibit local cross traffic during peak periods (Willow)	
U	Set back curb line one land width from current traveled way at driveways(Willow)	
V	Eliminate driveway access (Willow)	
W	Eliminate selected signalized intersections: Newbridge, Ivy, and Hamilton (Willow)	
X	Eliminate signalized intersections and allow right turns only at intersections (Willow)	
Y	Eliminate signalized intersections and prohibit any access from local streets (Willow)	
Z	Widen Willow Road one lane in each direction	
AA	Grade separations at selected intersections: Newbridge, Ivy, and Hamilton (Willow)	
CC 1	Elevated viaduct express lanes: 2 lanes in each direction (Willow)	
CC 2	Elevated viaduct express lanes: 1 lane in each direction (Willow)	

CC 3	Elevated viaduct express lanes: Reversible 2 lanes (Willow)	
CC 4	Elevated viaduct express lanes: 3 lanes with reversible middle lane (Willow)	
EE	Grade separations at all intersections (over crossings or undercrossings) (Willow)	
JJ	Prohibit local cross traffic during peak periods (University)	
LL	Set back curb line one lane width from current traveled way at driveways (University)	
MM	Eliminate driveway access (University)	
NN	Eliminate selected signalized intersections: Bell, Runnymede, Kavanaugh (University)	
OO	Eliminate signalized intersections and allow right turns only at intersections (University)	
PP	Eliminate signalized intersections and prohibit any access from local streets (University)	
QQ	Widen University Avenue one lane in each direction	
RR	Grade separations at selected intersections: Donohoe, Bay (University)	
SS 1	Elevated viaduct express lanes: 2 lanes in each direction (University)	
SS 2	Elevated viaduct express lanes: 1 lane in each direction (University)	
SS 3	Elevated viaduct express lanes: Reversible 2 lanes (University)	
SS 4	Elevated viaduct express lanes: 3 lanes with reversible middle lane (University)	
UU	Grade separations at all intersections (over crossings or under crossings) (University)	
EEE	Extend Central Expressway to Sand Hill Road	

D. Phase 2 Activities

The study sponsors are presently developing an Action Plan that provides a framework for advancing projects to implementation and further project development (engineering analysis). Projects that are being considered for Implementation include “Smart Corridors” that are geared toward managing traffic flows and managing incidents, operational improvements on Willow Road and University Avenue (in both cases, east of Highway 101), minor interchange improvements, and residential traffic management. Projects that are being considered for further engineering analysis include interchange reconstructions and expansions, grade-separated intersections, and express lanes.

Acknowledgements

The study sponsors are grateful for the participation and contributions by the following current and former members of the PAC and TAC.

Agency	Policy Advisory Committee	Technical Advisory Committee
Current Members		
City of Atherton	James Janz	Duncan Jones
City of East Palo Alto	Patricia Foster	Anthony Docto
City of Menlo Park	John Boyle	Kent Steffens Chip Taylor
City of Mountain View	Greg Perry	Mike Vroman
City of Palo Alto	Yoriko Kishimoto	Gayle Likens Shahla Yazdy
City of Redwood City	Alicia Aguirre	Chu Chang Rich Haygood
Caltrans	Bijan Sartipi	Erik Alm Zachary Chop Gene Gonzalo Lance Hall David Seriani Lee Taubeneck
Mid Peninsula Regional Open Space District	Nonette Hanko Larry Hassett	Ana Ruiz
Metropolitan Transportation Commission	Sue Lempert	Danielle Stanislaus
San Mateo County Transportation Authority	Rich Gordon	Joe Hurley Pat Dixon
Silicon Valley Manufacturing Group		Catherine Tompkinson-Graham Paul Shepard
Valley Transportation Authority	Scott Haywood	Murali Ramanujam
City/County Association of Governments	Rose Jacobs-Gibson	Richard Napier Sandy Wong John Hoang Jim Bigelow

Former Members		
City of East Palo Alto	Duane Bay	
City of Menlo Park	Nicholas Jellins Mickie Winkler	
City of Mountain View	Nick Galiotto Tom Means	
City of Palo Alto	Dena Mossar	Joe Kott
City of Redwood City	Ira Ruskin	
Metropolitan Transportation Commission	John McLemore	Jeff Georgevich Doug Johnson
San Mateo County Transportation Authority	Ira Ruskin	Shahla Yazdy
Valley Transportation Authority	David Casas Breene Kerr	Carolyn Gonot
City/County Association of Governments		Walter Martone

2020 Peninsula Gateway Corridor Study

Final Report

Appendices (on enclosed CD)

A: Data Collection and Existing Conditions

B: Public Input

C: Conceptual Definition & Engineering of Alternatives

D: Conceptual Cost Estimates

E: Travel Forecasting

F: ALPS Modeling Assumptions

Prepared for:



Prepared by:



July 29, 2008



STAFF REPORT

City Council

Meeting Date:

7/19/2016

Staff Report Number:

16-126-CC

Informational Item:

Update on the Oak Grove Avenue, Crane Street, and University Drive bicycle improvement project

Recommendation

This is an informational item and does not require City Council action.

Policy Issues

On February 9, 2016, the City Council approved the 2016 Work Plan. On May 3, 2016, City Council provided direction to amend the Work Plan to prioritize evaluation of bicycle improvements on Oak Grove Avenue, Crane Street and University Drive. This Project is also consistent with the policies stated in the 1994 City General Plan Circulation Element. These policies seek to maintain a circulation system using the Roadway Classification System that will provide for a safe and efficient movement of people and goods throughout Menlo Park for residential and commercial purposes.

Background

In 2015, the Bicycle Commission proposed inclusion of a new priority project in the Commission's two-year work plan. The proposed project was to identify a key bicycle route connection to provide access to key destinations in the City, including schools, the downtown, and connecting residential neighborhoods. The resulting project proposal for bicycle improvements to Oak Grove Avenue was developed, and presented to the City Council in a joint meeting with the Transportation Commission on January 26, 2016, and again to the City Council in a regular meeting on April 12, 2016.

On May 3, 2016, the City Council provided direction to amend the Work Plan to prioritize evaluation of bicycle improvements on Oak Grove Avenue, Crane Street and University Drive. A link to the staff report from May 3 is provided in [Attachment A](#) (as a hyperlink).

Analysis

Following City Council approval, staff initiated work on developing a work plan for the project and budgeting resources into the 2016-17 budget. As a first task, staff identified potential bicycle planning and design firms that could assist with the work in order to expedite the planning and design. Staff reviewed qualifications of firms that have completed past projects with the City, and requested a proposal from Alta Planning & Design to assist with this effort. Alta is a national leading transportation planning firm with expertise in complete streets projects, especially those involving bicycle and pedestrian improvements.

Staff worked with Alta to develop a scope of work, schedule, and fee estimate for the project. It is anticipated that installation would occur in two phases: the first phase within the City's jurisdiction, and the second crossing at El Camino Real. Caltrans has jurisdiction over El Camino Real (State Route 82), and

Caltrans review and approval is needed to make changes to Oak Grove Avenue as it approaches El Camion Real. The scope of work includes planning and design support for the first phase, with an optional future task for the second phase. The proposed task list includes:

1. Project Management
2. Data Collection
3. Existing Conditions
4. Needs Assessment
5. Prepare Concept Plans & Cost Estimate
6. Stakeholder Meetings
7. Council Review

This scope would allow the project to advance forward with conceptual level-design and cost estimates before advancing to detailed engineering level design. Staff anticipates concept plans would include bicycle lanes in both directions along the route. Considering the limited roadway width available, Alta will determine if parking removal is required on one or both sides of the corridor as concept plans are developed. Community engagement is anticipated to include targeted meetings with affected stakeholders (e.g., Chamber of Commerce and downtown businesses, Menlo Park Fire Protection District, and Nativity School) and electronic communication and materials (including a video, concept plans, and project website to facilitate feedback). Staff anticipates Council review and approval of concept plans prior to advancing into detailed design. Adequate funds for this phase are incorporated into the 2016-17 budget.

Proposed Project Schedule & Future Tasks

The proposed project schedule is summarized in Table 1 below, beginning in July 2016. It is anticipated that concept plans could be brought forward for review by City Council in October 2016. At that time, staff also anticipates bringing forward a request to allocate funds for design and construction and to authorize the City Manager to enter into agreements for design plans.

Following City Council review and approval, future tasks are anticipated to include preparation of design plans, awarding a construction contract, and construction as described below. On this schedule, staff anticipates that weather-pending, the project could be operational by spring 2017, in time for Bike Month (May) events such as Bike to Work Day.

Table 1: Proposed Project Schedule		
	Task	Schedule
1	Project Management	Ongoing
2	Data Collection	July – August 2016
3	Existing Conditions	July – August 2016
4	Needs Assessment	July – August 2016
5	Prepare Concept Plans and Cost Estimate	August – September 2016
6	Stakeholder Meetings	September 2016
7	Council Review	October 2016
	Future Tasks	Estimated Schedule
8	Prepare Design Plans	October – December 2016
9	Award Construction Contract	January 2017
10	Construction	February – April 2017

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

A. [Staff Report from May 3, 2016](http://menlopark.org/DocumentCenter/View/10127) City Council Meeting (menlopark.org/DocumentCenter/View/10127)

Report prepared by:

Nicole H. Nagaya, P.E., Transportation Manager

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Council Action Advised by July 31, 2016

June 10, 2016

TO: Mayors, City Managers and City Clerks

**RE: DESIGNATION OF VOTING DELEGATES AND ALTERNATES
League of California Cities Annual Conference – October 5 – 7, Long Beach**

The League's 2016 Annual Conference is scheduled for October 5 – 7 in Long Beach. An important part of the Annual Conference is the Annual Business Meeting (during General Assembly), scheduled for noon on Friday, October 7, at the Long Beach Convention Center. At this meeting, the League membership considers and takes action on resolutions that establish League policy.

In order to vote at the Annual Business Meeting, your city council must designate a voting delegate. Your city may also appoint up to two alternate voting delegates, one of whom may vote in the event that the designated voting delegate is unable to serve in that capacity.

Please complete the attached Voting Delegate form and return it to the League's office no later than Friday, September 23, 2016. This will allow us time to establish voting delegate/alternate records prior to the conference.

Please note the following procedures that are intended to ensure the integrity of the voting process at the Annual Business Meeting.

- **Action by Council Required.** Consistent with League bylaws, a city's voting delegate and up to two alternates must be designated by the city council. When completing the attached Voting Delegate form, please attach either a copy of the council resolution that reflects the council action taken, or have your city clerk or mayor sign the form affirming that the names provided are those selected by the city council. Please note that designating the voting delegate and alternates must be done by city council action and cannot be accomplished by individual action of the mayor or city manager alone.
- **Conference Registration Required.** The voting delegate and alternates must be registered to attend the conference. They need not register for the entire conference; they may register for Friday only. To register for the conference, please go to our website: www.cacities.org. In order to cast a vote, at least one voter must be present at the

Business Meeting and in possession of the voting delegate card. Voting delegates and alternates need to pick up their conference badges before signing in and picking up the voting delegate card at the Voting Delegate Desk. This will enable them to receive the special sticker on their name badges that will admit them into the voting area during the Business Meeting.

- **Transferring Voting Card to Non-Designated Individuals Not Allowed.** The voting delegate card may be transferred freely between the voting delegate and alternates, but *only* between the voting delegate and alternates. If the voting delegate and alternates find themselves unable to attend the Business Meeting, they may *not* transfer the voting card to another city official.
- **Seating Protocol during General Assembly.** At the Business Meeting, individuals with the voting card will sit in a separate area. Admission to this area will be limited to those individuals with a special sticker on their name badge identifying them as a voting delegate or alternate. If the voting delegate and alternates wish to sit together, they must sign in at the Voting Delegate Desk and obtain the special sticker on their badges.

The Voting Delegate Desk, located in the conference registration area of the Long Beach Convention Center, will be open at the following times: Wednesday, October 5, 8:00 a.m. – 6:00 p.m.; Thursday, October 6, 7:00 a.m. – 4:00 p.m.; and Friday, October 7, 7:30–10:00 a.m. The Voting Delegate Desk will also be open at the Business Meeting on Friday, but will be closed during roll calls and voting.

The voting procedures that will be used at the conference are attached to this memo. Please share these procedures and this memo with your council and especially with the individuals that your council designates as your city's voting delegate and alternates.

Once again, thank you for completing the voting delegate and alternate form and returning it to the League office by Friday, September 23. If you have questions, please call Kayla Gibson at (916) 658-8247.

Attachments:

- Annual Conference Voting Procedures
- Voting Delegate/Alternate Form

Annual Conference Voting Procedures

1. **One City One Vote.** Each member city has a right to cast one vote on matters pertaining to League policy.
2. **Designating a City Voting Representative.** Prior to the Annual Conference, each city council may designate a voting delegate and up to two alternates; these individuals are identified on the Voting Delegate Form provided to the League Credentials Committee.
3. **Registering with the Credentials Committee.** The voting delegate, or alternates, may pick up the city's voting card at the Voting Delegate Desk in the conference registration area. Voting delegates and alternates must sign in at the Voting Delegate Desk. Here they will receive a special sticker on their name badge and thus be admitted to the voting area at the Business Meeting.
4. **Signing Initiated Resolution Petitions.** Only those individuals who are voting delegates (or alternates), and who have picked up their city's voting card by providing a signature to the Credentials Committee at the Voting Delegate Desk, may sign petitions to initiate a resolution.
5. **Voting.** To cast the city's vote, a city official must have in his or her possession the city's voting card and be registered with the Credentials Committee. The voting card may be transferred freely between the voting delegate and alternates, but may not be transferred to another city official who is neither a voting delegate or alternate.
6. **Voting Area at Business Meeting.** At the Business Meeting, individuals with a voting card will sit in a designated area. Admission will be limited to those individuals with a special sticker on their name badge identifying them as a voting delegate or alternate.
7. **Resolving Disputes.** In case of dispute, the Credentials Committee will determine the validity of signatures on petitioned resolutions and the right of a city official to vote at the Business Meeting.



CITY: _____

**2016 ANNUAL CONFERENCE
VOTING DELEGATE/ALTERNATE FORM**

Please complete this form and return it to the League office by Friday, September 23, 2016. Forms not sent by this deadline may be submitted to the Voting Delegate Desk located in the Annual Conference Registration Area. Your city council may designate one voting delegate and up to two alternates.

In order to vote at the Annual Business Meeting (General Assembly), voting delegates and alternates must be designated by your city council. Please attach the council resolution as proof of designation. As an alternative, the Mayor or City Clerk may sign this form, affirming that the designation reflects the action taken by the council.

Please note: Voting delegates and alternates will be seated in a separate area at the Annual Business Meeting. Admission to this designated area will be limited to individuals (voting delegates and alternates) who are identified with a special sticker on their conference badge. This sticker can be obtained only at the Voting Delegate Desk.

1. VOTING DELEGATE

Name: _____

Title: _____

2. VOTING DELEGATE - ALTERNATE

Name: _____

Title: _____

3. VOTING DELEGATE - ALTERNATE

Name: _____

Title: _____

PLEASE ATTACH COUNCIL RESOLUTION DESIGNATING VOTING DELEGATE AND ALTERNATES.

OR

ATTEST: I affirm that the information provided reflects action by the city council to designate the voting delegate and alternate(s).

Name: _____ E-mail _____

Mayor or City Clerk _____ Phone: _____
(circle one) (signature)

Date: _____

Please complete and return by Friday, September 23, 2016

League of California Cities
ATTN: Kayla Gibson
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Sacramento, CA 95814

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