



May 30, 2014

David Hogan
Project Planner
City of Sunnyvale
Community Development Department
456 West Olive Avenue,
Sunnyvale, Ca 94088-3707

RE: Central & Wolfe Project
Comments in response to the Draft EIR made available for Public Review

Dear Mr. Hogan,

As Directors of Planning and Design for Hellmuth, Obata + Kassabaum (HOK) San Francisco, we have significant experience in creating large Corporate Campuses for Technology clients. Our design practice has been in the Bay Area for the past forty five years, and over the course of that time we have led the design process for, and built, over half the Corporate Headquarters campuses in Silicon Valley. We have a breadth of experience in these specific project types, and a deep understanding of the issues that make for a successful campus design. It is for this reason that we whole heartedly endorse the Central + Wolfe Campus in its original proposal which includes 777,000 square feet (sf) of occupiable building space and 2,541 parking stalls (or a ratio of 3.27 parking spaces per 1,000 sf of occupiable space).

F - 1

The reason for our writing is to comment on the "Alternatives to the Project" outlined in Chapter 5 of the April 2014 Landbank Central & Wolfe Campus DEIR, and specifically to address the "Reduced Development Alternative" and the "Alternative Transportation Alternative" outlined in Chapter 5.2. We believe that these two project alternatives do not meet the project objectives.

F - 2

The proposed Central & Wolfe Campus design includes 777,000 sf of occupiable building space and 2,541 parking stalls (or a ratio of 3.27 parking spaces per 1,000 sf of occupiable space). The Reduced Development Alternative would limit the total occupiable building space to 582,877 sf. The Alternative Transportation Alternative would limit on-site parking for the 777,000 sf campus to 2,137 parking stalls (or a ratio of 2.75 parking spaces per 1,000 sf of occupiable space).

F - 3

Both the Reduced Development Alternative and the Alternative Transportation Alternative would make the Central & Wolfe Campus an inferior real estate development as it would provide a campus that is too small in square footage for a potential Corporate User, and wouldn't provide enough parking so as to render the project uncompetitive in the marketplace. As such, these project alternatives are not acceptable alternatives.

The Reduced Development Alternative:

- In our experience working for such clients as Apple, Ebay, Hewlett-Packard, SRI and Genentech, such clients typically look for between 700,000 to 1 million plus sf at a minimum when they consider a campus development. These large, long-term, stable, leading-edge technology companies prefer a headquarter-style campus that is ample in square footage, amenity rich and denser in its footprints as short walking distances are key to collaboration and potential interactions.
- In order to give the Central & Wolfe Campus the best chance of attracting and retaining a large, long-term, and stable, leading-edge technology company user, the Central & Wolfe Campus should have as large a total occupiable building space as possible.

F - 4



- Reducing the size of the Central & Wolfe Campus to the Reduced Development Alternative of 582,877 sf would make the Central & Wolfe Campus less desirable and less likely to attract and retain a large, long-term, stable, leading-edge technology company.

This reduction in square footage would render the campus less, or potentially infeasible to potential Corporate users, as well as reducing the positive fiscal and economic impacts to the City of Sunnyvale.

↑
F-4
cont.

The Alternative Transportation Alternative:

- Based on our experience and our market research, large technology users targeted for the Central & Wolfe Campus have a demand for more parking, rather than less, as a ratio of the occupiable floor area. The lower the ratio of parking to occupiable floor area, the less desirable the Central & Wolfe Campus will be to large technology users looking to expand or relocate in Silicon Valley.
- The currently proposed parking ratio of 3.27 parking spaces per 1,000 sf of occupiable space for the Central & Wolfe Campus is already challenging. Reducing it further will impact the feasibility of leasing to potential Corporate tenants.
- Reducing the amount of on-site parking to the Alternative Transportation Alternative of 2,137 parking stalls (or a ratio of 2.75 parking spaces per 1,000 sf of occupiable space) would make the Central & Wolfe Campus: (1) less desirable to large, long-term, stable, leading-edge technology companies, (2) less likely to attract and retain a large, long-term, stable, leading-edge technology company, and therefore, (3) less feasible, or potentially infeasible.

F-5

Both the Reduced Development Alternative and the Alternative Transportation Alternative would make the Central & Wolfe Campus potentially infeasible. Therefore, these two project alternatives aren't acceptable, as they wouldn't provide the minimum square footage of occupiable space and the minimum parking to make the project viable for a large tech user.

F-6

Respectfully,

Steve Morton
Director of Planning, San Francisco HOK

Paul Woolford
Director of Design, San Francisco HOK

cc: T. Ryan, City of Sunnyvale
H. Hom, City of Sunnyvale

Letter F. HOK, Steve Morton, Director of Planning, and Paul Woolford, Director of Design

- F-1 The comment expresses support for the Project, and requires no response. Decision-makers will consider the comment in determining whether to approve the Project.
- F-2 The comment expresses the commenter's position that the Reduced Development Alternative and the Alternative Transportation Alternative do not meet Project objectives, but does not state which objectives or why.
- F-3 This comment concludes that the smaller size of the Reduced Development Alternative and the limited parking specified for the Alternative Transportation Alternative would make this "an inferior real estate development," and that these alternatives are therefore "not acceptable alternatives." Please see the response to Comment E-33. These two alternatives meet the CEQA requirements for the alternatives analysis.
- F-4 This comment expresses the opinion that the Reduced Development Alternative would make the development less attractive to the target market, and would reduce purported economic and fiscal benefits to the City. Please see the response to Comments F-3 and E-33.
- F-5 This comment expresses the opinion that the Alternative Transportation Alternative would make the development less attractive to the target market, and would reduce purported economic and fiscal benefits to the City. Please see the response to Comments F-3 and E-33.
- F-6 While the commenter provides their opinion that the Reduced Development Alternative and the Alternative Transportation Alternative are infeasible, they provide no evidence of this. These alternatives meet the CEQA requirements for the alternatives analysis.



David Hogan < dhogan@sunnyvale.ca.gov >

(no subject)

maryann anderson < ma867anderson@outlook.com >
To: david hogan < dhogan@sunnyvale.ca.gov >

Sat, May 24, 2014 at 3:49 AM

5-24-14

Dear Mr. Hogan,

I'm writing about the proposed "Central and Wolfe" project.

My name is Maryann Anderson and I am a Sunnyvale home owner living in the Victory Village neighborhood. I have lived in this historic little neighborhood since 1995. I was raised in Sunnyvale and my parents still live in that same house on Carlyn Ct, just off of Olive, which they built in 1962.

During the year that we waited for our Carlyn Ct house to be built, we rented a home on Iris. It was the very last house on the street before Iris ended at an enormous apricot and plum orchard. Just behind our Iris house was a large strawberry field and beyond the strawberries were more apricot orchards as well as cherries. These beautiful fields were bordered by Fair Oaks, Reed Road, and Wolfe. It was our backyard! ... and it was glorious.

My father was an engineer at Lockheed then and every night after work, as well as on weekends, he would have his daily jogs around the hay and onion fields that surrounded Lockheed. My brother and sisters would wait for him there and cool down in the summer evenings, sitting on top of huge stacked hay bales. There is nothing like the sweet earthy smell of hay in the cool night air. Ground owls came out at dusk and began their nightly hunt. It was exciting as we were hidden observers high above.

Our house at Carlyn Ct was very close to Libby's Cannery which then bordered Evelyn and Fair Oaks. Many longtime Sunnyvale residents, like us, will recall with nostalgic fondness the summer-long smell of tomatoes prepared and canned there it smelled just like tomato soup.

Of course these areas, our areas, were but a tiny fragment of the worlds most productive and life giving fertile valley.

In just a few short decades, this irreplaceable beauty forever vanished. And the name of this Valley, now famously known around the world, is called "Silicon". This does not make me, at least, feel proud. This makes me very sad indeed.

My present neighborhood, Victory Village, is a tiny square consisting of just six streets built in 1942 to support the war effort, hence the name. When it was built it was surrounded by orchards and fields.

Now, this neighborhood is surrounded by major thorough-fares, industry, commercialism, lots of traffic and it's accompanying noise and exhaust fumes.

One of it's four sides is directly bordered by Fair Oaks, a loud, very high traffic street. Across Fair Oaks and directly in front of the entire span of our neighborhood is the enormous Westinghouse building and it's surrounding property which houses one of the major Superfund sites of the valley.

The second side of Victory Village is bordered by Kifer on which Home Depot was built, immediately across from and running the full span of that side of our neighborhood.

The third side of the neighborhood is directly bordered by Central Expressway. The constant rush of traffic

G-1



noise from Central has gotten worse over the 19 years that I've lived here to the point that I sometimes close my windows, even on hot days, to get away from that incessant urgent sound.

And finally, the forth side is bordered by a thin watershed creek followed by non-stop industry all the way down to Wolfe Road and far beyond. The traffic on Wolfe Road is as bad as Fair Oaks and Central.

The areas surrounding Victory Village east of Westinghouse are completely filled with industrial complexes. I feel like this tiny surviving neighborhood from the early 40's, a reminder of softer more quiet days, is sinking in the surrounding crush of seemingly inexhaustible Silicon industries and their direct negative impact on neighborhoods and on the environment at large.

This Landbank thing is not GREEN!

There is no room for this Tsunami that LandBANK wants so badly to build. I received their glossy marketing brochure in which they so carefully craft their project description as "green", an architectural marvel, a campus which will include a six story parking structure for over 2500 vehicles! This is a crazy idea. In what universe is it considered "green" to buy out and tear down existing structures and to cut away all of the existing established trees and the ecosystems that live in and around them. All life in the proposed 18 acres will be literally scraped away.

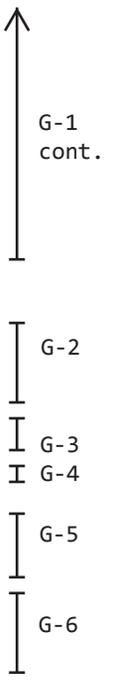
It would be a travesty if this thing is allowed to be built. Enough is enough. In addition to the horrible destruction of nature and wildlife, the traffic situation is at capacity right now. The banter of "traffic mitigation" with shuttles from Cal Train is lip service. When 2500 parking lots exist, 2500 vehicles will fill them. Why would the City even entertain the idea of adding so much more traffic and the ensuing exhaust and noise to this already too congested area. Let LandBANK find another, more appropriate spot for it's amazing campus. I just heard that the Pruneyard Mall in San Jose is for sale.

Thank you very much for asking for community input.

With appreciation,

Maryann Anderson
867 Cedar Ave
Sunnyvale 94086
408 351-9988

p.s. Mr Hogan, would you be so kind as to forward this e-mail to the Neighborhood Preservation Dept. many thanks.



Letter G. Maryann Anderson

- G-1 This comment describes the changes to Sunnyvale over recent decades, and current conditions around the commenter's neighborhood, which is located about 1,000 feet southwest of the Project site. Please refer to the discussion of cumulative Land Use and Aesthetics impacts, in Draft EIR Chapter 4, Cumulative and Growth-Inducing Impacts, which also discuss the changing character of Sunnyvale.
- G-2 The commenter apparently refers to a marketing brochure distributed by the Project applicant, not to the Draft EIR.
- G-3 Construction-related impacts are thoroughly analyzed in the Draft EIR. See Impacts AIR-1, AIR-2, NOI-1, NOI-2, BIO-1, BIO-4, BIO-7, GEO-3, HYD-1, HAZ-1, HAZ-2, CUL-1, CUL-2, CUL-3, and CUL-4. The commenter is referred to the Draft EIR Chapter S-1 Summary, and Chapter 3, Environmental Setting, Impacts, and Mitigation Measures.
- G-4 Biological impacts of site preparation, including vegetation removal, are discussed in Draft EIR Chapter 3.8, Biological Resources; see discussion of Impacts BIO-1, BIO-4, and BIO-7.
- G-5 Traffic impacts are discussed in Draft EIR Chapter 3.4, Traffic and Transportation. The Alternative Transportation Alternative examines an alternative to the Project that includes fewer parking spaces. Please see Draft EIR Chapter 5, Alternatives.
- G-6 The commenter expresses opposition to the Project; no response is required. Decision-makers will consider the comment in determining whether to approve the Project. Draft EIR Chapter 5 considers, but rejects, an alternative site alternative, because no other site in or near Sunnyvale was identified that provided a comparable combination of size, access, and availability; additionally, as stated on Draft EIR page 5-2, "Given that the Project site and its surroundings exhibit few sensitive resources, and also the relatively few significant environmental impacts (for a development of this scale) identified in Chapters 3 and 4, it is unlikely that an alternative site would have the capability of reducing or avoiding any of the significant impacts of the Project."



David Hogan < dhogan@sunnyvale.ca.gov >

Central & Wolfe

1 message

Dale Council < dcadvantage@live.com >

Fri, May 9, 2014 at 12:21 PM

To: "dhogan@sunnyvale.ca.gov" <dhogan@sunnyvale.ca.gov >

Cc: "griffith@dweeb.org" <griffith@dweeb.org >, "whittum@gmail.com" <whittum@gmail.com >, "jdavis@sunnyvale.ca.gov" <jdavis@sunnyvale.ca.gov >, "taraforcouncil@gmail.com" <taraforcouncil@gmail.com >, "alyssas@landbankllc.com" <alyssas@landbankllc.com >

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David Hogan,
Senior Planner
City of Sunnyvale

RE: Planning Project #2013-7525
Central & Wolfe Campus

Dear Mr. Hogan,

At first reading of the Central and Wolfe project via notice from city of Sunnyvale late April, I was shocked, dismayed and confused. You are building another office building. Why? How many thousands of square feet of office space is there available and unused now? As of this writhing there is over 1.2 million square feet of office space available, and Sunnyvale Planning Department is green-lighting another 3/4 of a million. What are you thinking? I know you think it "is" good to climb on the "Silicon Valley" bandwagon, but it is not. Doing so, in this action is at the sacrifice of those who live here, try to run a business here and pay their taxes.

H-1
H-2
H-3

The streets are already over-taxed to the point of gridlock. How many vehicles is this project going to introduce to the area? I believe there is what, over 3000 spaces proposed in this project. This is to say nothing about the 1640 potential vehicles from the new half million square foot LinkedIn facility less than 2 miles away will be introducing. Where is the environmental impact report? Add to this, lunch time comes and there are virtually NO eating establishments, save what, 2 or 3 within walking distance and one of them is a strip bar. But wait that's right this 18 acre campus is going to put up a cafeteria, or so their site states. Oh what was I thinking? 3/4 of million square feet of office space will potentially house what, six thousand people. A cafeteria . . . what?

H-4
H-5
H-6

This is where city planning, officials and the mayor's office has failed, continue to fail, fail the residence of Sunnyvale and will ultimately fail itself. Where are the parks, services, shops, eating establishments. Hell where's a Whole Foods Market. What is available is sparsely scattered, disconnected and cumbersome to reach.

H-7
H-8
H-9

Now that I have had a chance to calm down some and researched this communique', I am no longer shocked, dismayed and confused. I am pissed!

H-10

Dale R. Council
650-703-1703

Letter H. Dale Council

- H-1 The City has complied with all public noticing requirements for an EIR, as described in the CEQA Guidelines. The commenter acknowledges receipt of the notices for the proposed Project.
- H-2 This comment does not address environmental issues, and requires no response.
- H-3 The decision to approve or disapprove the Project has not yet occurred. This decision will be made by the City of Sunnyvale City Council, not the Planning Department.
- H-4 Traffic impacts are discussed in Draft EIR Chapter 3.4, Traffic and Transportation. Cumulative traffic impacts are discussed in Draft EIR Chapter 4, Cumulative and Growth Inducing Impacts.
- H-5 The Draft EIR and related documents are available at the Community Development Department, Planning Division, located in Sunnyvale City Hall (456 W Olive Ave.) and at the City's website:
<http://sunnyvale.ca.gov/Departments/CommunityDevelopment/CurrentProjectsandHearings/CentralandWolfe.aspx>
- H-6 Chapter 2, Project Description, includes a description of proposed on-site amenities; see page 2-16. As stated on page 2-10, estimated occupancy is 2,500 employees.
- H-7 This comment does not address the environmental analysis, and requires no response.
- H-8 Project impacts on public services are discussed in Draft EIR Chapter 3.14, Public Services.
- H-9 This comment appears to discuss the existing character of the City of Sunnyvale, and does not pertain to environmental effects of the Project. The Project's cumulative effects on land use and aesthetics are discussed in Draft EIR Chapter 4, Cumulative and Growth Inducing Impacts.
- H-10 This comment appears to express the commenter's opposition to the Project; no response is required. Decision-makers will consider the comment in determining whether to approve the Project.



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David Hogan
Project Planner
City of Sunnyvale
Community Development Department
456 West Olive Avenue,
Sunnyvale, CA 94088-3707

Dear Mr. Hogan,

I am a Managing Director with Jones Lang LaSalle's Capital Markets group in Palo Alto. During my 29-year career, I have been involved with sales of over 35 million square feet of property and more than 700 acres of land representing a value in excess of \$7.1 billion and I spearheaded the close of the largest office deal in Silicon Valley history -- the Peery Arrillaga Portfolio sale to RREEF. I was the top producer within CBRE in Silicon Valley from 2004 to 2007 and I was nationally ranked as one of the top sales professionals in CBRE's Institutional Investment Group.

Prior to Jones Lang LaSalle, I was Executive Managing Director of the Newmark Knight Frank Cornish & Carey Commercial Capital Group leading all western United States institutional investment sales. From 1998 through 2003 I was an Executive Vice President and Principal at Deerfield Realty Corporation where I was responsible for overseeing all aspects of the investment, development and management for a portfolio of Office, R&D/Flex and Industrial properties from San Francisco to San Jose.

The purpose of this letter is to comment on the "Alternatives to the Project" outlined in Chapter 5 of the Central & Wolfe Campus DEIR; specifically the "Reduced Development Alternative" and the "Alternative Transportation Alternative." In short, these project alternatives do not meet the Project Objectives.

The Reduced Development Alternative and the Alternative Transportation Alternative would cause the Central & Wolfe Campus to become less desirable to large technology companies that are the primary employment generating users in Silicon Valley, thus rendering the project less leasable and potentially infeasible, as described below. For these reasons, the project alternatives do not meet the project objectives.

Reduced Development Alternative

Based on my experience with the many technology companies, developers, investors and landlords that I'm currently working with, those that I've worked with in the past, and my extensive market knowledge, it is clear that large technology companies strongly prefer headquarter campuses that are larger, in terms of square footage, and more compact, in terms of bringing employees closer to one another, rather than smaller and sprawling campuses.

The larger and more compact a campus is, the greater the amount of growth flexibility and opportunities for employee collaboration and interaction. These are both critical campus attributes for large technology company users.

I-1

I-2



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To attract a large, marquee technology company user, the Central & Wolfe Campus needs to have the largest total occupiable building space possible. Several examples of the demand for larger campus developments are those occupied by Apple - 3,000,000 sf, NetApp - 2,500,000 sf, Juniper Networks - 1,600,000 sf, Google - 1,100,000 sf, Facebook - 1,000,000 sf, VMware - 1,400,000 sf and NVIDIA - 1,000,000 sf.

I-2
cont.

The proposed Reduced Development Alternative of 582,877 sf would cause the project to become less desirable to large technology companies, thus rendering the project less leasable and potentially infeasible.

Alternative Transportation Alternative

The large, marquee technology users that the proposed Central & Wolfe Campus is designed to attract require higher parking ratios, not lower parking ratios. The lower a campus' parking ratio is, the less desirable that campus will be to large technology companies.

I-3

These large technology company users want parking ratios that exceed the proposed Central & Wolfe Campus design of 3.27 parking spaces per 1,000 sf of occupiable space. On top of that, the competing campuses currently being built in Silicon Valley generally incorporate parking ratios of 3.3 per 1,000 sf to 4.0 per 1,000 sf.

The Alternative Transportation Alternative would reduce the project's parking ratio to a mere 2.75 parking spaces per 1,000 sf of occupiable space, thus rendering the Central & Wolfe Campus less desirable to large technology companies, less leasable and potentially infeasible.

In conclusion, the Reduced Development Alternative and the Alternative Transportation Alternative mentioned in the DEIR would both render the Central & Wolfe Campus less leasable and potentially infeasible. These project alternatives do not meet the project objectives.

I-4

Sincerely,

Erik Doyle
Managing Director
Jones Lang LaSalle

Letter I. Jones Lang Lasalle, Erik Doyle

- I-1 The comment expresses the commenter's position that the Reduced Development Alternative and the Alternative Transportation Alternative do not meet Project objectives, because these alternatives would be "less desirable to large technology companies... thus rendering the project less leasable and potentially infeasible." Please see the response to Comment E-33.
- I-2 This comment expresses the opinion that the Reduced Development Alternative would make the development less attractive to the target market. It is noted that the Project proposes a development of 777,170 square feet, which is smaller than those cited by the commenter as being large enough to "attract a large, marquee technology company user." Please see the response to Comment E-33.
- I-3 This comment expresses the opinion that the Alternative Transportation Alternative would make the development less attractive to the target market. Please see the response to Comment E-33.
- I-4 While the commenter provides his opinion that the Reduced Development Alternative and the Alternative Transportation Alternative are potentially infeasible, he provides no evidence of this. The commenter does not state which of the Project objectives he believes the alternatives do not meet. These alternatives meet the CEQA requirements for the alternatives analysis. Please see the response to Comment E-33.



300 Santana Row, Fifth Floor San Jose, CA 95128
T 408.615.3400 F 408.615.3444 www.cassidyturley.com

June 2, 2014

Mr. David Hogan
Project Planner
City of Sunnyvale - Community Development Department
456 West Olive Avenue
Sunnyvale, CA 94088-3707

Dear David:

I am a commercial real estate broker and vice chairman at Cassidy Turley. I have been a broker since 1991 specializing in the leasing of R&D and office space in Silicon Valley with a special emphasis in Sunnyvale. I have worked closely with many past and present Sunnyvale officials on a wide range of real estate related issues, providing advice and consultation on land use, zoning, FARs, Moffett Park and Peery Park specific plans, ITS zones, residential conversions, etc. Since 1993, I have leased or sold over 24 million square feet with a total transaction value of \$3.5 billion. In Sunnyvale alone, I have completed over 230 lease or sale transactions totaling approximately 8 million square feet.

J-1

I am writing to you about Landbank's Central and Wolfe Campus DEIR. I have concerns about the "Alternatives to the Project" listed in Paragraph 5.2, specifically calling out that both the "Alternative Transportation Alternative" and the "Reduced Development Alternative" do not meet the Project Objectives.

The Alternative Transportation Alternative - The project's proposed parking ratio is 3.27/1000 square feet. This number is already considered on the lower side of what is acceptable in the market. Most tenants today are demanding parking ratios of at least 3.3/1000. Most of the competing and comparable campuses offer parking ratios of 3.3/1000 to 4.0/1000. Under the Alternative Transportation Alternative parking would be limited to only 2.75/1000. This is less than what you could find in Sunnyvale City Center which is located at a major transportation hub of Bus and Caltrain. The lower a campus' parking ratio is, the less desirable that campus is to large tenants. A 2.75/1000 ratio would be a major negative for the project. It would dramatically impact the ownership's ability to attract a solid tenant for the project and potentially kill the viability of ever redeveloping the site.

J-2

The Alternative Development Alternative - In today's market, large tech companies (Apple, Samsung, Facebook, etc.) all want headquarter style campuses that can provide enough square footage for them to attract talent and have room for growth. The new campuses of today are going vertical rather than the sprawling campuses of the past (ie Cisco). Just look at the huge growth of downtown San Francisco. Today's leading-edge technology companies want large buildings that are more compact and walkable which promotes employee collaboration and exchanging of ideas. The larger and more compact a campus is, the more employee interaction there is. This is the single most critical factor that corporate users are looking for today in a Silicon Valley campus.

J-3

In order for the Central and Wolfe Campus to attempt to satisfy what these corporate users are looking for today, it must have as large an occupiable building square footage as possible. Many of the campuses today are well over 1 million square feet (Nvidia 1M, Facebook 1M, Google 1.1M Juniper 1.6M, etc.). Reducing the size to 582,000± square feet would have a significantly negative impact on Central and Wolfe's ability to compete and attract a tenant. With a reduced square footage, it would be less desirable for today's large growing companies that are looking for a long term campus solution in the Valley. Additionally a reduced square footage could potentially make developing the project infeasible and would definitely reduce the positive fiscal and economic impacts to Sunnyvale.



Reducing the parking ratio and/or the total square footage of the project, make the project much less attractive to large corporate tenants. If either of these scenarios is implemented, securing a potential tenant would be extremely difficult, thus making the project potentially infeasible. Both the Reduced Development Alternative and the Alternative Transportation Alternative would severely impact the potential viability of ever developing the Central and Wolfe Project.

J-4

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Horton", followed by a long horizontal line extending to the right.

Steve Horton
Vice Chairman, Principal
Cassidy Turley Northern California Inc.
CA Lic. 01127340

E Steve.Horton@cassidyurley.com
T 408-615-3412
M 408-726-1010

Letter J. Cassidy Turley, Steve Horton

- J-1 This comment serves as an introduction. Please see the responses to the following comments.
- J-2 Please see the response to Comment E-33.
- J-3 Please see the response to Comment E-33.
- J-4 Please see the responses to Comment E-33.

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CBRE, Inc.
Brokerage Service

June 2, 2014

Mr. David Hogan
Project Planner
City of Sunnyvale
Community Development Department
456 West Olive Avenue,
Sunnyvale, CA 94088-3707

Dear Mr. Hogan:

I have been a commercial real estate broker in Silicon Valley for over 25 years, and have completed lease and sale transactions of over 23 million square feet at over Four Billion Dollars. I am currently an Executive Vice President at CBRE in San Jose.

Over the past two decades I have negotiated leased space for buildings and campuses occupied by many of Silicon Valley’s leading corporations. Their collective goal, especially as space in the Valley becomes a premium, is to find the largest contiguous space available in one of the most competitive commercial real estate markets in the country. Our team recently helped to complete a lease for over 700,000 SF at Technology Corners in Sunnyvale. These large campuses are rare and offer a distinct advantage to large technology tenants.

I’ve written this letter as a comment to the “Alternatives to the Project” in Chapter 5 of the Landbank Central & Wolfe Campus DEIR, and specifically the “Reduced Development Alternative” and the “Alternative Transportation Alternative” in Chapter 5.2. These two project alternatives do not meet the Project Objectives, and they undermine the distinct size advantage for the Central & Wolfe Campus project in the highly competitive Silicon Valley Market.

K-1

Mr. David Hogan

June 2, 2014

Page 2

The Reduced Development Alternative would limit the total occupiable building space to 582,877 SF, and the Alternative Transportation Alternative would reduce the parking ratio for the 777,000 SF campus to 2.75 parking stalls per 1,000 square feet of occupiable space. Both of these project alternatives would make the Central & Wolfe Campus less desirable to large, world-class technology tenants, thereby making the project potentially unfeasible and potentially infeasible. Therefore, the Reduced Development Alternative and the Alternative Transportation Alternative do not meet the project objectives.

Having worked with numerous tenants and landlords in Silicon Valley, I can assure you that large technology tenants are looking for campuses with greater square footage in a compact environment. These two campus attributes allow for more growth flexibility while also helping to keep their employees within a convenient walking distance of one another. Smaller, sprawling campuses are not the current trend.

Larger and yet more compact campuses are what leading technology tenants are looking for. In addition to the greater amount of growth potential and flexibility that these large campuses offer, they also allow for the increased possibility of employee collaboration and serendipitous interaction. These are critical campus elements for today's Silicon Valley-based technology tenants.

The Reduced Development Alternative size of 582,877 SF is not in line with the large tenant headquarter requirements of companies like Apple, Facebook, VMware, NVIDIA and many others. The Reduced Development Alternative would make the Central & Wolfe Campus less desirable to these large, world-class technology tenants, and thereby make the project potentially unfeasible and potentially infeasible.

Another critical requirement for Silicon Valley's large technology tenants is ample parking and a sufficient parking ratio. Most of these large tenants are demanding a minimum parking ratio of 3.3 parking stalls per 1,000 square feet of occupiable space. In light of this, most new speculative campuses coming to market have parking ratios ranging from 3.3 per 1,000 to 4.0 per 1,000. The proposed Central & Wolfe Campus design includes a minimal 3.27 parking stalls per 1,000 square feet of occupiable space, which is already at the lower end of the tenant parking requirement spectrum.

The Alternative Transportation Alternative would dramatically diminish the leaseability of the Central & Wolfe Campus by reducing the parking ratio to 2.75 parking stalls per 1,000 square feet of occupiable space. This severely inadequate parking ratio would make the Central & Wolfe Campus potentially unfeasible and potentially infeasible.

K-2

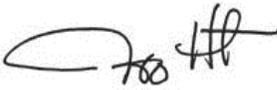
K-3

Mr. David Hogan
June 2, 2014
Page 3

The Reduced Development Alternative and the Alternative Transportation Alternative do not meet the project objectives. I strongly encourage the City of Sunnyvale to consider approving the Central & Wolfe Campus as it had been proposed by Landbank in order to give the project the best chance of bringing another long-term, world-class tenant to Sunnyvale.

|
K-4
|

Regards,



Jeff Houston
Executive Vice President
License # 00993274
408.453.7497

Letter K. CBRE, Jeff Houston

- K-1 The comment expresses the commenter's position that the Reduced Development Alternative and the Alternative Transportation Alternative do not meet Project objectives, presumably objectives 2 and 7, as described in the Project Description (Draft EIR pages 2-20 and 2-22). Please see the response to Comment E-33.
- K-2 Please see the response to Comment E-33.
- K-3 This comment expresses the opinion that the Alternative Transportation Alternative would make the development less attractive to the target market. Please see the response to Comment E-33.
- K-4 This comment expresses support for the Project as proposed; no response is required. Decision-makers will consider the comment in determining whether to approve the Project.



David Hogan < dhogan@sunnyvale.ca.gov >

The proposed Central & Wolfe Campus project

thomas irpan < thomasirpan@gmail.com >
To: dhogan@sunnyvale.ca.gov
Cc: thomas irpan <ThomasIrpan@gmail.com>

Wed, Apr 30, 2014 at 9:20 AM

Hello David Hogan,

Good morning!. We received City of Sunnyvale letter on the proposed Central & Wolfe Campus project. Our property is located at 238 Peppermint Tree (Evelyn Glen Complex). We are in FULL SUPPORT for the fast-track approval and permit for the project.

L-1

Additionally, I would like offer the following suggestion to futher improve the assimilation with the local surroundings & communities:

(1) REDUCE the ratio of the parking space/office sf from 3.4/1000 to 2.4/1000 or less. This reduction will reduce the traffic as well as promote innovation in the design and operation. Designer & Developer can leverage cloud computing, mobile computing and Internet-of-Things to improve parking efficiency. Corporate tenant can implement incentive for ride-sharing, bike-to-work, public transit voucher, etc. The parking space can be repurposed for other amenities and/or productive office space. It's a WIN-WIN for all. Also, instead of traditional allocation of ADA parking space, please allow the site to operate based on performance based for ADA and Expected Mother needs i.e. conciere services, electronic booking etc. so there is no need to pre-allocate space; there are many realtime reservation system that will improve site space utilization.

L-2

(2) Communities access to amenities. We would like to propose the amenities made available for local communities subjected to the safety and security within the proposed campus/tenant requirements. We beleive the communities can make a good use of the amenities in the evening and on the weekend while making financial contribution to the service provider during non-peak office hours.

L-3

Sincerely,

Thomas Irpan
mobile (438) 337-883

Letter L. Thomas Irpan

- L-1 This comment expresses support for the Project; no response is required. Decision-makers will consider the comment in determining whether to approve the Project.
- L-2 The Alternative Transportation Alternative examines an alternative that would reduce the parking ratio to 2.75 spaces per 1,000 square feet of occupiable space. The ratio suggested by the commenter would not appreciably change the comparison of the alternative to the Project as proposed. The incentives and programs described in the comment for encouraging use of transit and other alternative transportation modes are similar to those included in the Project applicant's TDM Program, implementation of which is included in the Alternative Transportation Alternative.
- L-3 The applicant has not expressed an intent to limit availability of planned site amenities to employees only. This issue does not, however, address the environmental analysis in the EIR.



David Hogan < dhogan@sunnyvale.ca.gov >

Concerns regarding the Central & Wolfe Campus

Ning Huang < nhuangus@yahoo.com >
Reply-To: Ning Huang < nhuangus@yahoo.com >
To: "dhogan@sunnyvale.ca.gov" < dhogan@sunnyvale.ca.gov >

Wed, May 28, 2014 at 9:17 PM

Hi David,

I would like to provide my comments regarding this project. While it is certainly a great thing to happen to Sunnyvale with new jobs and revenue resources, this should make Sunnyvale more vibrant.

I M-1

However, with the potentially 1500 jobs to be housed in the campus, the additional traffic and the greatly increased road noise on the Wolfe road, especially on the Cal-Train Overpass Bridge should be addressed.

I M-2,3

The increased road noise will greatly impact the living quality and safety of the apartments and town-homes right off the Cal-Train Overpass Bridge. As one of the options, this project should consider to install the sound barrier along side of the overpass bridge.

M-4

I am including a link below for the transparent sound barrier for your reference. Please let me know if you will require any further information, I am looking forward to hearing from you.

↓ M-5

<http://www.noisebarriers.org/noisebarrier/transparent-sound-barrier.html>

Sincerely,
!^_^! Ning Huang

215 Peppermint Tree Terrace
Sunnyvale, CA 94086



Home

About Us

Products

Applications

Contact Us



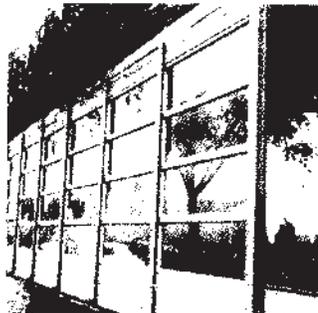
Home > Products > Transparent Sound Barrier

6 reasons of choosing Transparent Sound Barrier

Transparent sound barrier has been increasingly demanded by highways, railways, overpasses and bridges which cross populated urban areas. This clear sound wall has been proven an optimum alternative for solving visibility and noise abatement problems. Unlike metal or masonry blocks sound wall, clear sound barrier will not break the continuity of scenic landscapes while blocking traffic noises.

Transparent sound barriers are purely reflective acoustic barrier and always cooperate with sound absorbing elements. There are two glass-like sound barrier - acrylic and polycarbonate. Various thicknesses and sizes can be manufactured.

Note: For glass sound barrier, bird protection designs are also needed because bird can't distinct the clear barrier during flying.



Clear polycarbonate barrier combined with aluminum frames blocks road traffic noise

Your benefits of choosing transparent sound barriers:

- Increase road safety
Light-transmitting property allows sunlight through and prevents shadows being cast onto the roadway.
- Long life expectancy
Both excellent resistance to all weathers and strength to damage from hail, wind and storm contribute long service life. It can be used throughout many years in harsh outdoor environment.
- Adding extra view to landscapes.
In contrast with non-transparent sound barrier, clear barrier is an impressive and charming element to cement buildings.
- No visual pollution but giving an opening for light and views.
Clarity allows for enjoying beautiful views along the way or bridge.
- Easy installation.
Adaptable to any ground-mounted noise barrier system.
- Win-win solution of sound pollution and visibility.
Significantly reducing installation time and project cost.

Products List

Polycarbonate Sound Barrier

Acrylic Noise Barrier

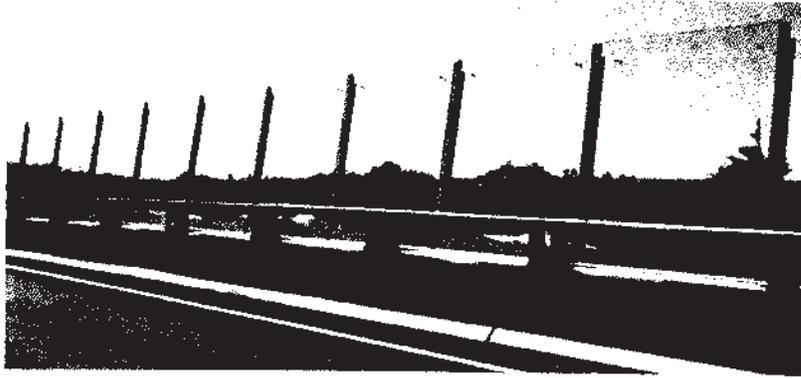
Transparent Sound Barrier

PVC Sound Barrier

Aluminum Sound Barrier

Gabion Sound Barrier

M-5
cont.



Acrylic sound wall is often found along railway, highway, overpass and bridge

Inquiry for Our Product



Hebei Huanyu Noise Barriers Co., Ltd.
Email: sales@noisebarriers.org

When you contact us, please provide your detail requirements.
That will help us give you a valid quotation.

Your Name *

Your Email *

Message *

Verification Code

5 9

Copyright © 2013 Hebei Huanyu Noise Barriers Co., Ltd. **Add:** Industrial Park, Anping County, Hengshui City, Hebei Province, China **TEL:** +86-318-72688581
FAX: +86-318-72688581 **Web:** <http://www.noisebarriers.org> **Mail:** sales@noisebarriers.org



M-5
cont.

Letter M. Ning Huang

- M-1 This comment expresses support for the Project; no response is required. Decision-makers will consider the comment in determining whether to approve the Project.
- M-2 As stated in the Draft EIR Project Description, page 2-10, expected occupancy of the proposed development is 2,500 employees.
- M-3 Traffic impacts of the proposed Project are examined in Draft EIR Chapter 3.4, Traffic and Transportation. No significant impacts are identified for Wolfe Road intersections. Increased roadway noise from increased traffic is examined in Draft EIR Chapter 3.7, Noise. Impact NOI-4 considers increased roadway noise from Project operations and concludes that such increase would be less than significant.
- M-4 Because roadway noise impacts would be less than significant (see response to previous comment), no mitigation is required.
- M-5 As noted in the response to Comment M-4, because roadway noise impacts would be less than significant, no mitigation is required, though the City appreciates the commenter's suggestion.



David Hogan < dhogan@sunnyvale.ca.gov >

Comments on the Draft EIR for the Landbank Central & Wolfe Campus

Larry Klein < larry.klein@yahoo.com > Mon, Jun 2, 2014 at 3:57 PM
Reply-To: Larry Klein <larry.klein@yahoo.com>
To: "dhogan@sunnyvale.ca.gov" <dhogan@sunnyvale.ca.gov>, Trudi Ryan <tryan@sunnyvale.ca.gov>
Cc: Cristina Pfeffer <cpfaffer@sunnyvale.ca.gov>

Dear Sunnyvale Planning Staff,

After reviewing the Draft EIR for the Landbank Central & Wolfe Campus, I wanted to document the possible issues that I think need to be further examined related to the transportation impacts of the proposed project.

N-1

1. The proposed mitigation measure of a four-legged signalized intersectional at Central Expressway and Commercial Street seems like it would dramatically add to the air pollution within our City. Sunnyvale is one of the few cities that maintains the true meaning of an "expressway" by not having signals on this thoroughfare (except for the light at Mary & Central at our border with Mountain View). The addition of a 4-way signal would cause thousands of cars daily to have to idle in order to provide the signalized entrance for traffic coming from Commercial Street as well as pedestrians crossing the new signalized intersection.

N-2

Never have I seen that an EIR mitigation measure would subsequently create additional, if not greater, environmental impacts affecting thousands of commuters passing into/from/through our city as well as the affecting the overall air quality of Sunnyvale itself. The operation of the project itself would have significant impacts on increased emissions of criteria air pollutants, but the mitigation measure would also be significant. The idling of automobile traffic on Central Expressway would create many metric tons of CO2 emissions every year.

The impacts on Air Quality for incorporating this mitigation measure were not evaluated in the Draft EIR and should be further examined.

2. I was surprised that instead of a four way signalized intersection, the alternative of adding an overpass at Central Expressway/Commercial location wasn't better evaluated. Raising the expressway at that point would allow the flow of traffic on Central Expressway to continue as it currently exists, thus negating the issues with idling of traffic at a signalized intersection. This would also improve the pedestrian access, bicycle route and vehicular flow across Commercial without interfacing and affecting the numerous cars utilizing Central Expressway on a daily basis.

N-3

I think the concept of making an underpass for Commercial Street and examining on-ramp/off-ramp configurations should be further evaluated. The on-ramp/off-ram configurations could be incorporated into the Central Expressway Project that the Santa Clara County Roads Department has already been evaluating.

3. Since the four-way intersection would require approval by the Santa Clara County Road Department, there is a possibility that it would not be approved. Therefore, the affects of additional traffic on the already listed intersections should be more closely evaluated in case the alterations to Central Expressway are not approved. I think further traffic analysis is needed to examine the lack of a signalized Commercial/Central Expressway Intersection.

N-4

Thanks for taking my comments into consideration.

Regards,

Larry Klein
Sunnyvale Resident

Letter N. Larry Klein

- N-1 This comment serves as an introduction to those that follow; please see the following responses.
- N-2 Based on the findings of supplemental traffic analysis completed for this Final EIR (Appendix A), the City has determined that Mitigation Measure TR-1 would not be effective, and the measure is deleted from this Final EIR. Please see the response to Comment C-2.
- N-3 Please see the response to Comment C-2.
- N-4 The analyses requested by the commenter (i.e., traffic conditions at study area intersections, and the Project's impact on those intersections), have already been completed, and are presented in the Draft EIR under Impacts TR-1 (Existing plus Project), TR-2 (Background plus Project), and CUM-TR (Cumulative plus Project). Conditions with a signalized Commercial Street/Central Expressway intersection are a "mitigated condition." The above-cited impact analyses are unmitigated conditions. Please see also the response to Comment C-2.

562 Carlisle Way
Sunnyvale, CA 94087

May 20, 2014

BY EMAIL (.PDF)

City of Sunnyvale
Department of Community Development
456 W. Olive Ave.
Sunnyvale, CA 94088

Attention: David Hogan
(dhogan@sunnyvale.ca.gov)

Re: Central & Wolfe Campus Draft Environmental Impact Report (EIR)

Dear Mr. Hogan:

I would like the final EIR to do a more thorough analysis on the impact the Central & Wolfe project will have on traffic. Based on the proposed project trip distribution shown in Figure 7 of the Transportation Impact Analysis (TIA) in Appendix C (page 30), the TIA should include the following intersections as study intersections:

- S. Wolfe Rd./Old San Francisco Rd.
- S. Wolfe Rd./Iris Ave.
- S. Wolfe Rd./Maria Ln.
- S. Wolfe Rd./E. El Camino Real
- S. Wolfe Rd./E. Fremont Ave.
- S. Wolfe Rd./Marion Way
- S. Wolfe Rd./Inverness Way
- S. Wolfe Rd./Homestead Rd.
- Central Expy./N. Fair Oaks Ave.
- Central Expy./N. Mathilda
- Central Expy./N Mary Ave.
- Central Expy./Oakmead Pkwy.
- Central Expy./Bowers Ave.

The TIA should confirm that the proposed project will not add 10 or more peak hour vehicles per lane for any intersection movement for these intersections. If the project will add more than 10 peak hour trips to one or more of these intersections, the TIA should be revised to analyze the impacts on the intersections and identify mitigations measures for the significant impacts per VTA CMP TIA Guidelines.

Sincerely,
Martin Landzaat
martin_landzaat@hotmail.com

0-1

562 Carlisle Way
Sunnyvale, CA 94087

June 01, 2014

BY EMAIL (.PDF)

City of Sunnyvale
Department of Community Development
456 W. Olive Ave.
Sunnyvale, CA 94088

Attention: David Hogan
(dhogan@sunnyvale.ca.gov)

Re: Central & Wolfe Campus Draft Environmental Impact Report (EIR)

Dear Mr. Hogan:

I have the following comments.

On page 3.4-23 it says:

Another reason for signalizing the Commercial Street / Central Expressway intersection (Mitigation Measure TR-1) is the potential safety improvements that could be gained.

Please explain how a signal at Commercial Street / Central Expressway could improve traffic safety.

A signal at Commercial Street / Central Expressway would create a traffic hazard. The Central Expressway bridge that crosses Wolfe Rd. is arched, motorists cannot see what's on the other side of the bridge until they reach the middle of the bridge. Eastbound traffic on Central Expressway that is stopped at a signal at Commercial Street would backup towards Wolfe Rd. The stopped traffic would be at risk of being rear ended by eastbound traffic that cannot see the stopped vehicles in time.

In Appendix C, the traffic data collected/generated for the Commercial Street / Central Expressway intersection has the following disclaimer:

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants). The peak hour warrant analysis in this report is not intended to



0-2



0-3

replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

I am requesting that an 8-hour signal warrant be generated for the Commercial Street / Central Expressway intersection.

On Page 5-2 it says the following:

Alternative types of development were considered, but rejected because they do not meet Project objectives. These include mixed use development, residential development, and commercial development. It is also noted that these types of development are inconsistent with Project site General Plan designation and zoning.

According to the the City of Sunnyvale zoning map at <http://sunnyvale.ca.gov/Departments/CommunityDevelopment/MapsandData.aspx> the project site is zoned MS - Industrial and Service. That's the same zoning designation of the nearby Lowes Home Improvement and Cheetahs Gentlemen's Club sites. Sunnyvale has plenty of R&D office buildings but has a shortage of big box retail and family friendly entertainment facilities. I would like the final EIR to consider retail and entertainment options for this site. A project similar to the Santa Clara Mercado shopping center should be considered as an alternative.

↑
0-3
cont.

0-4

Sincerely,
Martin Landzaat
martin_landzaat@hotmail.com

Letter O. Martin Landzaat

O-1 The Traffic Impact Analysis (TIA) followed VTA TIA guidelines for the selection of study intersections. The VTA guidelines state that a CMP intersection is to be included in the TIA if any of the following conditions are met:

1. A proposed project is expected to add 10 or more peak-hour vehicles per lane to any intersection movement;
2. The intersection is adjacent to the project; or
3. Based on engineering judgment, Lead Agency staff (in this case, City of Sunnyvale) determines that the intersection should be included in the analysis.

The intersections cited by the commenter did not meet the above-cited conditions, and therefore, were not included in the TIA.

O-2 Please see response to Comment C-2 regarding the removal from the EIR of Mitigation Measure TR-1, signalization of the Central Expressway/Commercial Street intersection.

O-3 Please see response to Comment C-2 regarding the removal from the EIR of Mitigation Measure TR-1, signalization of the Central Expressway/Commercial Street intersection.

O-4 To be included in the full evaluation of alternatives, a proposed alternative must meet three conditions: it must have the ability to reduce significant impacts of the Project; it must have the ability to meet at least some of the basic Project objectives; and it must be feasible (CEQA *Guidelines* Section 15126.6). As stated in the Draft EIR on page 5-2 under Rejected Alternative 2: Alternative Development, another type of development, such as mixed use, residential, or commercial, was considered but rejected, because these types of developments are not capable of meeting the basic Project objectives.

3 14-0465

File #: 2013-7525

Location: 280 Santa Ana Ct. (APNs: 205-33-002, -005, -007, -009, -010, -011, -012, -013, -014)

Zoning: M-S (Industrial and Service) Zoning District

Proposed Project: **CENTRAL & WOLFE CAMPUS PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) -
PUBLIC COMMENTS**

The DEIR has evaluated related applications to allow three interconnected 6-story office buildings totaling approximately 777,000 square feet, a 6-story parking garage and 2,541 parking spaces on a 17.84 acre site; Applications include a REZONE, DESIGN REVIEW, VESTING TENTATIVE MAP and a DEVELOPMENT AGREEMENT

Applicant / Owner: Landbank Investments, LLC

Environmental Review: Draft Environmental Impact Report (DEIR)

Project Planner: David Hogan, (408) 730-7628, dhogan@sunnyvale.ca.gov

Trudi Ryan, Planning Officer, noted that a public hearing for comments on a Draft Environmental Impact Report (DEIR) is not required for this item, that the City of Sunnyvale convenes this optional forum in front of the Planning Commission as an opportunity for the public to comment on the adequacy of the DEIR.

P-1

Martin Landzaat, a Sunnyvale resident, said he read the document and finds it hard to believe that Central Expressway at Commercial Street is the worst, F-rated intersection that was reviewed. He said he drives Central everyday to work in Santa Clara and rarely sees anyone coming out from Commercial. Mr. Landzaat said he has looked into the data and in appendices C and B of what he considers a confusing document, on page 337, a disclaimer states that a one-hour signal warrant was conducted at the intersection and he wants them to do an eight hour warrant. Mr. Landzaat said he is against the signalization of Central and Commercial because he thinks it is short-sighted and that Central is not well-built. He said when you go over the bridge at Wolfe Road, which arches over like an eyebrow, if you are on the westbound side you cannot see to the other side until you are at the top of the bridge. He said if a light is installed at Commercial, traffic will back up and cause a traffic hazard. He said the same conditions exist at Lawrence, which also arches over and that there is a light at Oakmead, but that the distance between the top of Lawrence and Oakmead is much greater, about four-tenths of a mile. He said that at Commercial the distance is less and traffic will come up at 50 miles-per-hour and be expected to stop. He said at Lawrence a sign was recently added alerting drivers to watch for stopped vehicles which is like a deer crossing sign. He said one is always watching for stopped vehicles, but you cannot see them and it is a traffic hazard. Mr. Landzaat said the document claims

P-2

P-3

it will enhance safety but did not say what the safety enhancement is, and that he would like more alternatives to be considered for the site, such as retail and entertainment. He said Sunnyvale does not have a movie theater or a bowling alley, and that across the street there is a Lowes and he would love to see a Walmart there as well. He said that if you have been to Costco on the weekends, you know it is jam-packed, and that across the street there is a gentlemen's club and he would like to see more family-friendly entertainment such as a multiplex. He said it is embarrassing that you can get lap dance in Sunnyvale but cannot take your family to a movie or a bowling alley, and that he asks that more alternatives that we need are considered.

↑ P-3
cont.
P-4

Comm. Klein asked if staff prefers verbal or written comments, to which Ms. Ryan responded that written format is preferred because it allows the person expressing the opinion to elaborate on their concerns, whereas spoken comments are not as easy to interpret. She said no one is precluded from doing both. In response to Comm. Klein's inquiry, Ms. Ryan said Monday, June 2 at 5:00 p.m. is the end of the 45-day comment period. Comm. Klein said he has read many Environmental Impact Reports (EIR), most of which have been from a mitigation standpoint internal to the City of Sunnyvale and did not require approval from outside agencies. He said because it is Central Expressway, there may be conflict if there are mitigation possibilities that cannot be implemented because the outside public agency may not grant approval. He said his second issue is that adding a four-way traffic light on Central would increase carbon emissions because of idling cars at the light, which does not exist now. He said as of now the idling cars are those trying to get from Commercial onto Central, and that this is the first time he has seen a mitigation measure cause other issues that will also need to be mitigated. Comm. Klein said the requirement to put a traffic light there that may increase air emissions seems to be going in the wrong direction. He said the alternative of an overpass did not seem like a mitigated plan from the EIR, and that there are two ways to deal with traffic at that location, one of which is to put a stop light there and the other is to install an overpass. He said you would have queuing in the on-ramps or the side street itself and you still get the benefits of pedestrian access under Central if it is an overpass, and that he did not see that alternative in the document.

P-5
P-6
P-7
P-8

Comm. Durham said he has some concerns with Central Expressway and would like to see data on how putting a four-way traffic light there actually increases the flow of traffic, and would also like to see data on the safety issues in the area. He said there are other ways to deal with traffic that can be proposed without adding another traffic light system.

P-9

Comm. Harrison said she may have missed the discussion regarding how a four-way traffic light improves traffic flow, to which Ms. Ryan replied that she will not explain it, but can have the Traffic staff speak generally about it at a future meeting. Ms. Ryan clarified that what is proposed is a four-way traffic signal and not a four-way stop sign.

| P-10

Chair Melton closed the agenda item.

Letter P. City of Sunnyvale Planning Commission Meeting Minutes, May 28, 2014

Responses to Planning Commission Public Hearing Comments

- P-1 This comment describes the reasons for the public hearing.
- P-2 Please see response to Comment C-2 regarding the removal from the EIR of Mitigation Measure TR-1, signalization of the Central Expressway/Commercial Street intersection.
- P-3 Please see response to Comment C-2 regarding the removal from the EIR of Mitigation Measure TR-1, signalization of the Central Expressway/Commercial Street intersection.
- P-4 Please see the response to Comment O-4.
- P-5 This comment addresses procedural issues and requires no response.
- P-6 Please see the response to Comment C-2.
- P-7 Please see the response to Comment C-2.
- P-8 Please see the response to Comment C-2.
- P-9 Please see response to Comment C-2 regarding the removal from the EIR of Mitigation Measure TR-1, signalization of the Central Expressway/Commercial Street intersection.
- P-10 Please see response to Comment C-2 regarding the removal from the EIR of Mitigation Measure TR-1, signalization of the Central Expressway/Commercial Street intersection.

CHAPTER III

Revisions to the Draft EIR

The following revisions are made to the Draft EIR and incorporated as part of the Final EIR. Revised or new language is underlined. Deleted language is indicated by ~~striketrough~~ text. Text and figure changes have been made in response to comments received on the Draft EIR (see Chapter II, Comments on the Draft EIR and Responses to Comments), to new information received since publication of the Draft EIR, or to correct errata discovered in the Draft EIR.

A. Revisions to Chapter S Summary

As a result of the deletion of Mitigation Measure TR-1, (see the response to Comment C-2 in Chapter II of this Final EIR), the text of page S-3 in the Summary Chapter is revised as follows:

S.5 Significant Unavoidable Impacts

The Project, if implemented, could result in significant adverse environmental impacts. Mitigation measures proposed as part of the Project or added in this EIR would avoid or reduce most of the impacts to a less-than-significant level (see Table S-1). However, even after implementation of mitigation measures identified and described in this EIR, the following impact would remain significant and should be considered an unavoidable consequence of Project approval:

- **Impact NOI-1:** Construction of the Project would result in a temporary increase in ambient noise levels.

In addition, the following traffic impacts are identified as significant and unavoidable. No feasible, effective mitigation measures are available to reduce or avoid these impacts, and they would therefore be an unavoidable consequence of Project approval. ~~However, Mitigation Measure TR-1 (reconfigure intersection of Commercial Street and Central Expressway), if implemented, would reduce these impacts to less than significant. Implementation of Mitigation Measure TR-1 is outside of the control of the lead agency, the City of Sunnyvale; therefore, implementation cannot be guaranteed.~~

- **Impact TR-1:** The Project would increase traffic volumes at area intersections.
- **Impact TR-2:** The Project, in combination with approved developments in the study area that are not yet built or occupied, would increase traffic volumes at area intersections.

- **Impact CUM-TR:** The Project, in combination with reasonably foreseeable future development Projects in the study area, would increase traffic volumes at area intersections

B. Revisions to Chapter 2, Project Description

As discussed in the response to Comment E-14, the third paragraph on page 2-16 of the Draft EIR is modified as follows:

The entrances to the office buildings and the amenities would face onto the 1.38-acre central quad. The site plan includes trails for pedestrians and bicycles to access the quad (**Figure 2-13**). Food trucks would also have access to the quad. The quad area ~~could~~ would include a 300-500 ~~person seat~~ outdoor amphitheater. The amphitheater would be intended for use only by site tenants between 9:00 a.m. and 5:00 p.m., and in compliance with all City ordinances. ~~While this feature is included in the project described in the EIR, it has not yet been included on the preliminary plans at this time.~~

As discussed in the response to Comment E-15, page 2-22 of the Draft EIR is modified as follows:

The following City of Sunnyvale approvals may be required for the Project:

1. Amend the Precise Zoning Plan (Map) for the City of Sunnyvale to rezone the site to the Industrial and Service Zone (M-S) FAR 100% (Industrial and Service Zone, allowable FAR of 100%) or approve a use permit to authorize a FAR of 100%.
2. Major Design Review for a 777,170 square foot office complex and associated parking structure, and on-site amenities
3. Approval of a vesting tentative map.
4. Approve a Development Agreement between the City of Sunnyvale and Landbank Investments, LLC.
5. The vacation of an existing public right of way for Santa Ana Court.
6. Demolition permits.
7. Grading permits.
8. Building permits.
9. Encroachment permits.
10. Tree removal permit.

C. Revisions to Chapter 3, Environmental Setting, Impacts, and Mitigation Measures

Revisions to Section 3.3, Aesthetics

As stated in the response to Comments E-16 through E-21 in Chapter II, figures showing existing views of the Project site in Section 3.3, Aesthetics, have been modified as suggested to indicate the location of the Project site in each image, as shown on the following pages.

As discussed in the response to Comment E-23 in Chapter II, Impact AES-3 is revised as follows. This change is also made to Summary Table S-1.

Impact AES-3: The Project would create a new source of light which could adversely affect nighttime views in the Project area. (Less than Significant)

The Project site is within a developed and urbanized area where nighttime lighting is part of the environment. Vehicle headlights, street lighting at intersections and along streets, parking lot lighting, security lighting, and building lighting as well as various other sources of light from surrounding urban uses characterize current nighttime conditions. Once constructed, the proposed new buildings would be prominent new features. Given the height of the buildings, nighttime lighting of the buildings could become a relatively more prominent visual presence than is currently the case and could affect nighttime views in the vicinity of the Project site. The proposed parking garage would be partially enclosed, and so garage lighting and headlights from vehicles moving within the structure at night would not create a new source of light. As stated in the Project Description, the Project applicant has committed to meeting the Leadership in Energy and Environmental Design (LEED) light pollution reduction standard for night lighting. The standard is intended to minimize “light trespass” from a building and site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction, and reduce development impact from lighting on nocturnal environments (U.S. Green Building Council, 2009). ~~Achievement of the LEED standard for night lighting would avoid creating a new substantial source of light.~~ Achievement of the LEED light pollution reduction standard would include dimming all non-emergency interior luminaries with a direct line of sight to any openings in the building envelope by at least 50%, between the hours of 11 p.m. and 5 a.m. Exterior lighting will be designed with high performance light fixtures that meet City Code and provide sufficient lighting for safety and comfort but do not exceed lighting power density per ANSI/ASHRAE/IESNA Standard 90.1-2007 for the classified Project lighting zone. Given the applicant’s commitment to meeting this standard and the fact that the Project would be subject to Design Review, this impact would be less than significant.

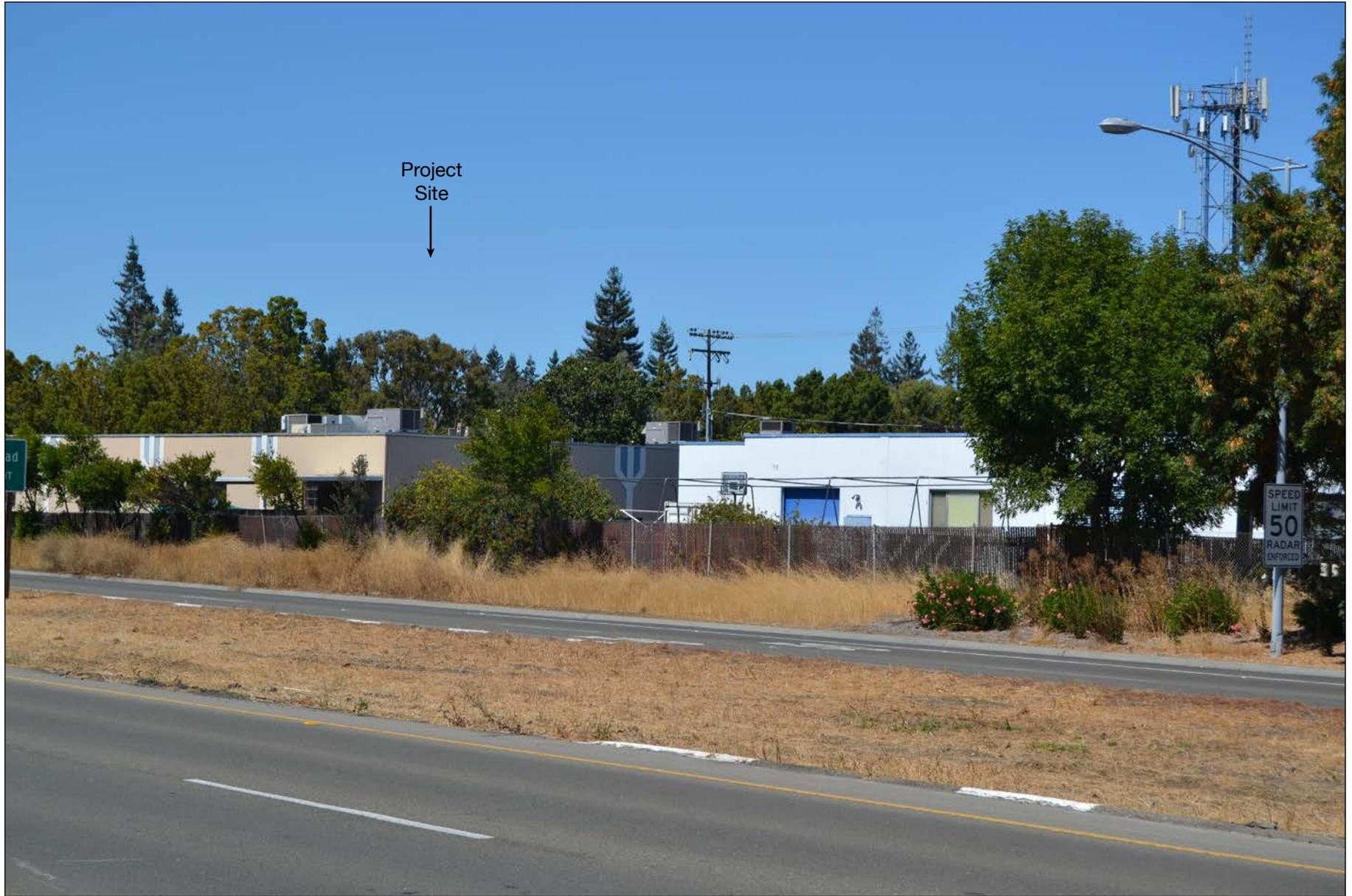
Mitigation: None required.



SOURCE: ESA

Landbank Central & Wolfe Campus . 120442.01

Figure 3.3-4
Viewpoint 1



SOURCE: ESA

Landbank Central & Wolfe Campus . 120442.01

Figure 3.3-5
Viewpoint 2





SOURCE: ESA

Landbank Central & Wolfe Campus . 120442.01

Figure 3.3-9
Viewpoint 6



SOURCE: ESA

Landbank Central & Wolfe Campus . 120442.01

Figure 3.3-11
Viewpoint 8

Revisions to Section 3.4, Traffic and Transportation

AS discussed in the response to Comment E-25 in Chapter II, the text on page 3.4-7 of the Draft EIR is revised as follows:

The Project site is served by public transportation (as shown in **Figure 3.4-1**). The VTA, which operates bus and light rail service within Santa Clara County, runs multiple transit routes through the study area. The Project site is also approximately 1.3-mile walking distance from the Lawrence Caltrain Station, which is longer than the VTA CMP guideline of 2,000 feet reasonable walking distance to a transit stop. The Sunnyvale Caltrain Station is slightly farther away from the Project site, as shown in Figure 3.4-1.

VTA serves the Project study area with five fixed-route bus lines. The Project site is situated near existing bus stops at the intersection of East Arques Avenue / North Wolfe Road. At this intersection, VTA Route 304 stops along westbound East Arques Avenue. At the intersection of East Arques Avenue and Commercial Street, approximately 1/10-mile east of the Project site, VTA Route 304 stops along both eastbound and westbound East Arques Avenue.

In addition to the VTA bus routes, Altamont Commuter Express (ACE) Shuttle Route 822 operates in the vicinity of the Project site, stopping at the East Arques Avenue / North Wolfe Road intersection along southbound North Wolfe Road and the East Arques Avenue / Commercial Street intersection along westbound East Arques Avenue. ACE provides connections to the BART system and provides service to the Livermore-Amador Valley and San Joaquin Valley.

As discussed in the response to Comment C-2 in Chapter II of this FEIR the discussion of mitigation measures for Impact TR-1 on page 3.4-19 of the Draft EIR is revised as follows. This change is also made to Summary Table S-1.

Mitigation Measure

There is no feasible, effective measure to mitigate the significant Project impact at the intersection of Commercial Street / Central Expressway. Reconstruction/reconfiguration of the intersection to a full four-legged signalized intersection would substantially increase the total intersection delay compared to if the existing geometry remained, due primarily to the delay introduced to vehicles on Central Expressway that are currently under free-flow conditions. For example, the change in total intersection delay at Central/Commercial from Cumulative Conditions to Cumulative plus Project Conditions during the p.m. peak hour is calculated to be about 14 vehicle-hours under current geometric conditions, whereas it would grow to about 88 vehicle-hours under reconfigured/signalized conditions, which is considered a significant impact.

As a result, the Impact TR-1 would be significant and unavoidable.

Mitigation Measure TR-1: The City of Sunnyvale, in cooperation with Santa Clara County, shall reconstruct/reconfigure the Commercial Street / Central Expressway intersection to a full four legged signalized intersection, with eastbound and westbound left turn lanes on Central Expressway, and restriping northbound and southbound Commercial Street for one shared left turn/through lane and one exclusive right turn lane, or as may be approved by Santa Clara County.

With implementation of Mitigation Measure TR-1, operations at this intersection would improve to LOS D or better. With implementation of Mitigation Measure TR-1, it is expected that some local existing traffic in the vicinity of this intersection would be re-distributed. This would not, however, be expected to adversely affect any of the study intersections to the extent that LOS would decrease.

Significance after Mitigation: Significant and Unavoidable. This Project impact would be significant and unavoidable because it is not certain that the measure could be implemented. The City of Sunnyvale, as lead agency, could not implement Measure TR-1 without the approval of Santa Clara County. However, in the event that Mitigation Measure TR-1 could be implemented, the impact would be less than significant.

Similarly, the discussion of mitigation measures under Impact TR-2 on page 3.4-20 is revised as follows. This change is also made to Summary Table S-1.

Mitigation Measure

As described in the discussion of mitigation measures for Impact TR-1, above, there is no feasible, effective measure to mitigate the significant Project impact at the intersection of Commercial Street / Central Expressway. Consequently, Impact TR-2 would be significant and unavoidable.

Mitigation Measure TR-2: Implement Mitigation Measure TR-1 (reconstruct/reconfigure the Commercial Street / Central Expressway intersection to a full four legged signalized intersection, with eastbound and westbound left turn lanes on Central Expressway, and restriping northbound and southbound Commercial Street for one shared left turn/through lane and one exclusive right turn lane). As was described for Mitigation Measure TR-1, the peak hour volume signal warrant (Warrant 3) would be met during the p.m. peak hour under Existing plus Project Conditions. With implementation of Mitigation Measure TR-1, operations at this intersection would improve to LOS D or better.

Significance after Mitigation: Significant and Unavoidable. This Project impact would be significant and unavoidable because it is not certain that the measure could be implemented. The City of Sunnyvale, as lead agency, could not implement Measure TR-1 without the approval of Santa Clara County. However, in the event that Mitigation Measure TR-1 could be implemented, the impact would be less than significant.

Also as a result of the deletion of Mitigation Measure TR-1, Impact TR-4, on page 3.4-23 of the Draft EIR, is revised as follows. This change is also made to Summary Table S-1.

Impact TR-4: The Project would increase traffic volumes on area roadways and at area intersections, potentially affecting traffic safety. (Significant)

~~Another reason for signalizing the Commercial Street / Central Expressway intersection (Mitigation Measure TR-1) is the potential safety improvements that could be gained. The most-recent five-year collision history was reviewed at this the intersection of Commercial Street and Central Expressway and the segment of Central Expressway between the North Wolfe Road and Lawrence Expressway interchanges. Collision rates were analyzed and compared with statewide and Santa Clara County average rates.~~

The annual average collision rate at the intersection of Commercial Street and Central Expressway is less than the statewide average rate; therefore, it is not considered to be a hazardous intersection. However, the collision rate for the Central Expressway segment between North Wolfe Road and Lawrence Expressway that includes the existing Commercial Street ramps is more than double the average rate for Santa Clara County.

~~Implementation of Mitigation Measure TR-1 (reconstruct/reconfigure the Commercial Street / Central Expressway intersection to a full four legged signalized intersection, with eastbound and westbound left turn lanes on Central Expressway, and restriping northbound and southbound Commercial Street for one shared left turn/through lane and one exclusive right turn lane) would improve local connections and safety for pedestrians. Pedestrians would have a new signalized crossing that connects the neighborhoods served by the north and south legs of Commercial Street (currently separated by a median). This new connection would facilitate walking to the Lawrence Caltrain Station, located approximately 1.3 miles from the Project site by allowing pedestrians to safely access local streets with lower traffic demand than Lawrence Expressway and North Wolfe Road in the Project vicinity.~~

~~In terms of the deficient weaving segment, t~~The Santa Clara County Roads Department has identified a Central Expressway Project that would add auxiliary lanes in both directions between North Wolfe Road and Lawrence Expressway. The purpose of the Central Expressway Project is to address the high rate of collisions and weaving maneuvers along this segment. The proposed Project would contribute additional traffic volumes and entering/exiting weaving maneuvers that would exacerbate this existing road segment deficiency.

Mitigation Measure

Mitigation Measure TR-4: The proposed Project would contribute a fair share payment (proportionate to added proposed Project traffic volumes) to the Santa Clara County Roads Department's Central Expressway Project that would add auxiliary lanes in both directions between North Wolfe Road and Lawrence Expressway.

Significance after Mitigation: *Less than Significant.*

Also as a result of the deletion of Mitigation Measure TR-1, Impact TR-7, starting on page 3.4-24 of the Draft EIR, is revised as follows. This change is also made to Summary Table S-1.

Impact TR-7: The Project would not conflict with existing or planned transit facilities. (Less than Significant)

As discussed in the Setting, the proposed Project has access to five close-in VTA bus routes and the Caltrain service (within 1.3 miles of the Project site, though that is greater than the VTA CMP guideline of 2,000 feet reasonable walking distance to a transit stop). The bus stops and Caltrain station are accessible via sidewalks for pedestrians and roadways for bicyclists on a relatively flat terrain amenable to these transportation modes. In addition, the average commute peak hour load factors on the five VTA bus routes in the Project study area and Caltrain Duane Avenue Shuttle are well below capacity (see **Appendix C**). Therefore, there are no known significant impacts that would occur on these transit lines even if the full VTA TDM reductions were shifted to just these public transit lines and not to carpools, bicyclists, pedestrians, or other transit lines.

Caltrain has an average maximum peak load factor of over 1.0 in the Project vicinity (see **Appendix C**), specifically at Sunnyvale Station during the morning peak, which means more riders than can be accommodated in seats. It is expected that Caltrain would still be able to accommodate additional riders using available standing room capacity. Therefore, no significant impact on existing Caltrain operations is anticipated from the potential addition of transit riders generated by the proposed Project.

~~Implementation of Mitigation Measure TR-1 (creating an at grade signalized intersection at Commercial Street and Central Expressway) would allow northbound and southbound through vehicle movements on Commercial Street across Central Expressway. This mitigation measure would not only improve auto operational conditions at Commercial Street and Central Expressway, but also improve non-auto, multimodal access between the Project site and the Lawrence Caltrain Station. To take advantage of the new intersection, it is suggested that new bus stops be added on Commercial Street, and the current Duane Avenue Caltrain Shuttle be rerouted through Commercial Street and Kifer Road. These measures, which are not required to reduce any impact to less than significant, would help improve overall transit access and operations in the Project vicinity.~~

Mitigation: None required.

Also as a result of the deletion of Mitigation Measure TR-1 (see the response to Comment C-2 in Chapter II), and as discussed in the response to Comment E-8, Impact TR-8 and its associated mitigation measures, starting on page 3.4-27 of the Draft EIR, are revised as follows. This change is also made to Summary Table S-1.

Impact TR-8: The Project could conflict with adopted policies and standards regarding site access by automobiles, pedestrians and bicyclists. (Significant)

This impact examines whether the Project meets City policies and standards regarding site access by automobiles, pedestrians, and bicycles. Not meeting these standards could cause secondary impacts, including traffic congestion, and discouraging site employees from using alternative means of transportation to and from the Project site.

Automobile Access

In terms of external access, the Project conceptual plan shows four access driveways that the proposed Project would use. Two of these driveways access East Arques Avenue from the north edge of the site with full access, while the other two are right-in/right-out-only driveways accessing northbound North Wolfe Road. According to the Project site plan, the proposed site driveways have a width of 25 feet, which would be less than the minimum allowable driveway width for fire access in Sunnyvale (26 feet for buildings over 30 feet tall). Also, given the expected peak-hour volumes at these driveways, particularly outbound during the p.m. peak hour, both driveways should have dedicated lanes for both left and right turns. An exclusive northbound left-turn lane and an exclusive northbound right-turn lane at the two East Arques Avenue driveways would better accommodate the outbound Project trips during the p.m. peak hour. The current site plan, if unchanged, could result in increased congestion on the roadways adjacent to the Project site.

Pedestrian Access

In terms of pedestrian facilities, sidewalks are currently provided along the North Wolfe Road Project frontage. In addition, well-defined pathways would connect the proposed office buildings on site directly to North Wolfe Road and the intersection of North Wolfe Road and East Arques Avenue, where the closest bus stops are located. These internal pathways also connect to the south side of East Arques Avenue east of the Project site, where there is a lack of sidewalk that if provided could take pedestrians to the bus stops at the intersection of Commercial Street and East Arques Avenue. The internal site pathways also connect to a centralized pedestrian pathway system that is separated from vehicles and circulates between all buildings. An issue with the current design with regard to external pedestrian access includes a gap in sidewalk along eastbound East Arques Avenue between the existing and proposed pedestrian amenities at the Project site and the intersection of East Arques Avenue/Commercial Street. The internal pathway on the north side of the Project site would close part of the gap along East Arques Avenue between North Wolfe Road and Commercial Street.

These issues would restrict or inhibit pedestrian access to the site, and thereby decrease the likelihood that site employees would choose to walk to work. This could inhibit achievement of the five-percent TDM trip reduction goal and would be a significant impact.

Bicycle Access

Currently, there are Class II bicycle lanes along the North Wolfe Road Project frontage and west and east of the East Arques Avenue Project frontage. Based on the proposed Project site plan, primary bicycle access to the Project site would be provided at the proposed driveways and non-motorized pathways connecting to the intersection of East Arques Avenue/North Wolfe Road. These bicycle access points and pathways would connect to the Class II bicycle lanes along Wolfe Avenue, East Arques Avenue, and Commercial Street. However, the City's CBCIP calls for bikeways to be established on all City arterial and collector streets, and there is currently a gap in the eastbound bike lane on East Arques Avenue along the Project frontage.

~~There also is a gap in Class II bicycle lanes along the north-south DeGuigne Drive / Commercial Street bicycle corridor in the Project vicinity. The corridor extends from East Duane Avenue in the north to Kifer Road in the south; however, Commercial Street between Central Expressway and Kifer Road does not include bicycle facilities. Implementation of Mitigation Measure TR-1 (convert the Commercial Street / Central Expressway interchange to an at-grade signalized intersection) would afford an opportunity to close this gap while also enhancing local bicycle facility connectivity and access to the Lawrence Caltrain Station, and help meet City CBCIP and trip reduction goals.~~

The gaps in bicycle lanes described above would restrict or inhibit bicycles from accessing the Project site, and thereby decrease the likelihood that site employees would choose to bicycle to work. This could inhibit achievement of the five-percent TDM trip reduction goal and would be a significant impact.

Mitigation Measures

Mitigation Measure TR-8a: Design Changes to Improve Vehicle Access.

1. Widen driveway #4 to accommodate three lanes: one inbound and two outbound (one for left turns and one for right turns). This three-lane cross section shall be 36 feet wide to accommodate three 12-foot lanes and be extended for the entire 488-foot length shown in the site plan to accommodate maximum queues. The widened section can be achieved by increasing the pavement width in the direction of the easternmost property line shown in the site plan.
2. The same 36-foot cross section shall be provided at East Arques Avenue Driveway #3 between the Project's auto court and East Arques Avenue to accommodate maximum queues that may result from up to 25 outbound left turns and 50 outbound right turns during the p.m. peak hour. This 36-foot width shall also meet City fire access standards.

Mitigation Measure TR-8b: Design Changes to Improve Pedestrian Access.

The Project applicant shall work with the City to provide new sidewalk to close the remaining gap between the east edge of the Project site and the East Arques Avenue / Commercial Street intersection. The resulting continuous sidewalk is expected to increase transit use to the Project site, as well as enhance existing Project pedestrian and bicycle access, thereby helping the Project meet City peak hour vehicle trip reduction goals.

Mitigation Measure TR-8c: Design Changes to Improve Bicycle Access.

1. ~~—To meet the City’s CBCIP’s requirement, the Project applicant shall work with the City to dedicate property along the East Arques Avenue Project frontage to accommodate widening for a Class II bicycle lane to eliminate the existing bike lane gap in the eastbound direction. That improvement is expected to enhance existing Project bicycle access, as well as increase transit use to the Project site, thereby helping the Project meet City peak-hour vehicle trip reduction goals.~~
2. ~~—In conjunction with improvements to the Commercial Street Central Expressway intersection (Mitigation Measure TR-1), the Project applicant shall work with the City to re-stripe Commercial Street between Central Expressway and Kifer Road to include Class II bicycle lanes in both directions. This can be accommodated within the existing 40 foot curb to-curb width.~~

Significance after Mitigation: *Less than Significant.* Implementation of the above mitigation measures would ensure that Project impacts relative to site access would be reduced to less than significant.

Revisions to Section 3-5, Air Quality

As discussed in the response to Comment E-29, a typographical error is corrected as follows. This change is also made to Summary Table S-1.

Impact AIR-5: The Project could conflict with or obstruct implementation of the applicable air quality plan. (Less than Significant)

The most recently adopted air quality plan in the San Francisco Bay Area Air Basin is the BAAQMD’s 2010 Clean Air Plan (2010 CAP) (BAAQMD, 2010). The 2010 CAP is a roadmap showing how the San Francisco Bay Area will achieve compliance with the State one-hour ozone standard as expeditiously as practicable, and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The control strategy includes stationary source control measures to be implemented through BAAQMD regulations; mobile source control measures to be implemented through incentive programs and other activities; and transportation control measures to be implemented through transportation programs in cooperation with the MTC, local governments, transit agencies, and others. The 2010 CAP also represents the Bay Area’s most recent triennial assessment of the region’s strategy to attain the State one-hour ozone standard.

BAAQMD guidance states that “if approval of a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project would be considered consistent with the 2010 CAP.” As indicated in the discussion of the previous impacts, the Project would **not** result in significant and unavoidable air quality impacts. As discussed in **Impact AIR-4**, the proposed Project would have a less than significant operational impact on air quality after implementation of feasible mitigation measures. Consequently, based on BAAQMD guidance, the Project may also be considered consistent with the 2010 CAP (the applicable air quality plan). This would be a less-than-significant impact.

Mitigation: None required.

Revisions to Section 3-8, Biological Resources

A typographical error was discovered in the Impact Statement for Impact BIO-2: the statement indicates that the impact is Significant, when it should indicate Less than Significant, as concluded in the discussion of the impact that follows. The Impact Statement is corrected as follows. This change is also made to Summary Table S-1.

Impact BIO-2: The Project could result in increased bird collisions with buildings. (Less than Significant)

D. Revisions to Chapter 4, Cumulative and Growth-Inducing Impacts

As a result of the deletion of Mitigation Measure TR-1 (see the response to Comment C-2 in Chapter II of this Final EIR), the discussion of mitigation measures under Impact CUM-TR on page 4-11 is revised as follows. This change is also made to Summary Table S-1.

Mitigation Measure

As described in the discussion of mitigation measures for Impact TR-1 in Section 3.4, Traffic and Transportation, there is no feasible, effective measure to mitigate the significant Project impact at the intersection of Commercial Street / Central Expressway. Consequently, Impact CUM-TR would be significant and unavoidable.

~~**Mitigation Measure CUM-TR:** Implement Mitigation Measure TR-1 (reconstruct/reconfigure the Commercial Street / Central Expressway intersection to a full four-legged signalized intersection, with eastbound and westbound left turn lanes on Central Expressway, and restriping northbound and southbound Commercial Street for one shared left turn/through lane and one exclusive right turn lane).~~

~~As was described for Mitigation Measure TR-1 in Section 3.4, Traffic and Transportation, the peak hour volume signal warrant (Warrant 3) would be met during the p.m. peak hour under Existing plus Project Conditions. With implementation of Mitigation Measure TR-1, operations at this intersection would improve to LOS E or better under Cumulative Plus Project conditions.~~

~~**Significance after Mitigation: Significant and Unavoidable.** This Project impact would be significant and unavoidable because it is not certain that the measure could be implemented. The City of Sunnyvale, as lead agency, could not implement Measure TR-1 without the approval of Santa Clara County. However, in the event that Mitigation Measure TR-1 could be implemented, the impact would be less than significant.~~

E. Revisions to Chapter 5, Alternatives

As a result of the deletion of Mitigation Measure TR-1 (see the response to Comment C-2 in Chapter II of this Final EIR), the discussion of the relative impacts of traffic and transportation impacts, on page 5-6 of Draft EIR Chapter 5, Alternatives, is revised as follows:

Traffic and Transportation

As discussed in Section 3.4, the Project as proposed would result in significant impacts to level-of-service at one intersection in the vicinity of the Project site (see Impact TR-1). The No Project Alternative would avoid these impacts, and would have no impact on traffic and transportation. Both the Reduced Development Alternative and the Alternative Transportation Alternative would reduce trip generation, compared to the Project as proposed, by 25% and 10%, respectively. This may be sufficient to avoid the significant impact on intersection level of service. ~~Note, however, that if Mitigation Measure TR-1 (reconfiguration of the Commercial Central Expressway intersection) were to be approved by Santa Clara County, this impact would also reduce the significant traffic impacts to less than significant. If warranted even with the reduced trip generation associated with the Alternative Transportation Alternative and the Reduced Development Alternative, and if approved by Santa Clara County, Mitigation Measure TR-1 would also reduce this impact to less than significant for these two alternatives.~~

Also, Footnote a) in Table 5-1 on page 5-5 of Draft EIR Chapter 5, Alternatives, is deleted:

NOTES:

- ~~^a Project Impacts TR-1, TR-2, and CUM-TR are stated in Section 3.7 and Chapter 4 as significant and unavoidable because it is not certain that mitigation measure TR-1 (reconstruct and reconfigure Commercial Street / Central Expressway intersection) could be implemented. The City of Sunnyvale, as lead agency, could not implement Measure TR-1 without the approval of Santa Clara County. However, in the event that Mitigation Measure TR-1 could be implemented, these impacts would be less than significant.~~

CHAPTER IV

Mitigation Monitoring and Reporting Program

A. Monitoring Purpose and Authority

In compliance with *CEQA Guidelines* §15097(a), when significant effects are identified in an EIR, the Lead Agency is required to adopt a program for monitoring and reporting on the implementation of these measures. In general, mitigation measures are made conditions of approval of a proposed Project, and are enforceable as permit conditions. The Mitigation Monitoring and Reporting Program (MMRP) is designed to ensure that the mitigation measures and Project revisions identified in the EIR are implemented, and that a record is created and maintained to demonstrate their implementation.

B. Mitigation Monitoring and Reporting Table

The Mitigation Monitoring and Reporting Program table (**Table IV-1**) lists the following information for each mitigation measure identified in this EIR:

- mitigation measure (full text of the measure);
- implementation procedure;
- monitoring / reporting responsibility; and
- monitoring / reporting schedule.

**TABLE IV-1
LANDBANK CENTRAL & WOLFE CAMPUS
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Procedure	Monitoring/ Reporting Responsibility	Monitoring/ Reporting Schedule
Aesthetics			
<p>Mitigation Measure AES-4: Prior to issuance of Project building permits, the applicant shall complete and submit to the City of Sunnyvale Community Development Department documents showing that the potential for the proposed new buildings to cause a new source of reflected light and glare has been examined, and that any necessary design alterations have been made to avoid an impact of this kind. Design alterations may include, but are not limited to, selection of exterior building materials that are less reflective; use of exterior building elements that break up reflective surfaces; and re-design of the shape or orientation of the buildings. These documents and any necessary design alterations shall be to the satisfaction of the Community Development Director.</p>	<p>Project applicant shall submit a glare study as a supplement to Project plans for review and approval.</p>	<p>Community Development Department, Planning Division, Building Division</p>	<p>Prior to issuance of building permits.</p>
Traffic and Transportation			
<p>Mitigation Measure TR-4: The proposed Project would contribute a fair share payment (proportionate to added proposed Project traffic volumes) to the Santa Clara County Roads Department's Central Expressway Project that would add auxiliary lanes in both directions between North Wolfe Road and Lawrence Expressway.</p>	<p>Project applicant shall contribute a fair share payment to Central Expressway Project.</p>	<p>Department of Public Works</p>	<p>Prior to the issuance of demolition permit.</p>
<p>Mitigation Measure TR-8a: Design Changes to Improve Vehicle Access.</p> <ol style="list-style-type: none"> 1. Widen driveway #4 to accommodate three lanes: one inbound and two outbound (one for left turns and one for right turns). This three-lane cross section shall be 36 feet wide to accommodate three 12-foot lanes and be extended for the entire 488-foot length shown in the site plan to accommodate maximum queues. The widened section can be achieved by increasing the pavement width in the direction of the easternmost property line shown in the site plan. 2. The same 36-foot cross section shall be provided at East Arques Avenue Driveway #3 between the Project's auto court and East Arques Avenue to accommodate maximum queues that may result from up to 25 outbound left turns and 50 outbound right turns during the p.m. peak hour. This 36-foot width shall also meet City fire access standards. 	<p>Project applicant shall submit building plans for review and approval.</p>	<p>Community Development Department, Planning Division and Building Division, Department of Public Works</p>	<p>Prior to issuance of building permit.</p>
<p>Mitigation Measure TR-8b: Design Changes to Improve Pedestrian Access. The Project applicant shall work with the City to provide new sidewalk to close the remaining gap between the east edge of the Project site and the East Arques Avenue / Commercial Street intersection. The resulting continuous sidewalk is expected to increase transit use to the Project site, as well as enhance existing Project pedestrian and bicycle access, thereby helping the Project meet City peak hour vehicle trip reduction goals.</p>	<p>Project applicant shall incorporate sidewalk improvements into public improvement plans.</p>	<p>Department of Public Works</p>	<p>Prior to issuance of building permit.</p>
<p>Mitigation Measure TR-8c: Design Changes to Improve Bicycle Access. To meet the City's CBCIP's requirement, the Project applicant shall dedicate property along the East Arques Avenue Project frontage to accommodate widening for a Class II bicycle lane to eliminate the existing bike lane gap in the eastbound direction. That improvement is expected to enhance existing Project bicycle access, as well as increase transit use to the Project site, thereby helping the Project meet City peak-hour vehicle trip reduction goals.</p>	<p>Project applicant shall incorporate dedication of property rights into public improvement plans.</p>	<p>Department of Public Works</p>	<p>Prior to issuance of building permit.</p>

TABLE IV-1 (Continued)
LANDBANK CENTRAL & WOLFE CAMPUS
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementation Procedure	Monitoring/ Reporting Responsibility	Monitoring/ Reporting Schedule
Air Quality			
<p>Mitigation Measure AIR-1a: Off-Road Equipment Control Measures. All off-road equipment greater than 25 hp and operating for more than 20 total hours over the duration of construction activities shall meet the following requirements:</p> <ul style="list-style-type: none"> a. Where access to alternative sources of power are available, portable diesel generators shall be prohibited; b. All off-road equipment shall have: <ul style="list-style-type: none"> i. Engines that meet or exceed either U.S. Environmental Protection Agency (U.S. EPA) Tier 3 off-road emission standards, or ii. Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS). 	<p>Project applicant shall submit construction air quality improvement and greenhouse gas reduction plan as supplement to Project plans for review and approval.</p>	<p>Community Development Department, Planning Division</p>	<p>Prior to issuance of grading permit.</p>
<p>Mitigation Measure AIR-1b: Architectural Coatings. ROG emissions from the use of architectural coatings shall be reduced by implementing either or both of the following measures:</p> <ul style="list-style-type: none"> i. Architectural coatings shall be applied over the course of 4 months or longer, in order to reduce daily ROG emissions to below the significance threshold. ii. A minimum of 67% of exterior building materials shall be prefinished to reduce ROG emissions as a condition of the building permit. 	<p>Project applicant shall submit construction air quality improvement and greenhouse gas reduction plan as supplement to Project plans for review and approval.</p>	<p>Community Development Department, Planning Division and Building Division</p>	<p>Prior to issuance of building permit</p>
<p>Mitigation Measure AIR-1c: Best Management Practices for Controlling Particulate Emissions. The following BAAQMD Best Management Practices for particulate control will be required for all construction activities within the Project site. These measures will reduce particulate emissions primarily during soil movement, grading and demolition activities but also during vehicle and equipment movement on unpaved project sites</p> <ul style="list-style-type: none"> 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. 3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. 4. All vehicle speeds on unpaved roads shall be limited to 15 mph. 5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. 	<p>Project applicant shall submit construction air quality improvement and greenhouse gas reduction plan as supplement to Project plans for review and approval.</p>	<p>Community Development Department, Planning Division and Building Division</p>	<p>Prior to issuance of any construction permit.</p>

**TABLE IV-1 (Continued)
LANDBANK CENTRAL & WOLFE CAMPUS
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Procedure	Monitoring/ Reporting Responsibility	Monitoring/ Reporting Schedule
Air Quality (cont.)			
<p>6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, § 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</p> <p>7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</p>			
<p>Mitigation Measure AIR-3: Low Emission Backup Diesel Generator. The engine for the proposed back-up diesel generator shall meet U.S. EPA Tier Level 3 emission requirements.</p>	Project applicant shall submit specifications for emergency backup generator as supplement to Project plans for review and approval.	Community Development Department, Planning Division	Prior to issuance of building permit.
Greenhouse Gases and Climate Change			
<p>Mitigation Measure GHG-1: Construction-Related GHG Reduction Measures. The following BAAQMD-suggested measures shall be implemented during Project construction:</p> <ul style="list-style-type: none"> • Use alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15% of the fleet; • Use locally sourced building materials for at least 10% of overall materials brought to site; and • Recycle or reuse at least 50% of construction waste or demolition materials. 	Project applicant shall submit construction air quality improvement and greenhouse gas reduction plan as supplement to Project plans for review and approval.	Community Development Department, Planning Division and Building Division, and Environmental Services Department	Prior to issuance of any construction permit.
Noise			
<p>Mitigation Measure NOI-1a: Construction Noise Control Measures. The applicant shall employ site-specific noise attenuation measures during Project construction to reduce the generation of construction noise. These measures shall be included in a Noise Control Plan that shall be submitted for review and approval by the City of Sunnyvale Building Services Division to ensure that construction noise is consistent with the standards set forth in the City's Noise ordinance. Measures specified in the Noise Control Plan and implemented during Project construction shall include, at a minimum, the following noise control strategies:</p> <ul style="list-style-type: none"> • Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds; • Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with 	Project applicant shall submit construction noise reduction plan as supplement to Project plans for review and approval.	Community Development Department, Planning Division and Building Division	Prior to issuance of any construction permit.

TABLE IV-1 (Continued)
LANDBANK CENTRAL & WOLFE CAMPUS
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementation Procedure	Monitoring/ Reporting Responsibility	Monitoring/ Reporting Schedule
Noise (cont.)			
<p>compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used;</p> <ul style="list-style-type: none"> Stationary noise sources shall be located as far from adjacent receptors as possible and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or include other measures. 			
<p>Mitigation Measure NOI-1b: Pile Driving Noise-Reducing Techniques and Muffling Devices. Noise-reducing pile-driving techniques shall be employed during Project construction. These techniques shall include:</p> <ul style="list-style-type: none"> Installing intake and exhaust mufflers on pile-driving equipment; Vibrating piles into place when feasible, and installing shrouds around the pile-driving hammer where feasible; Implement "quiet" pile-driving technology (such as pre-drilling of piles and the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; Use cushion blocks to dampen impact noise, if feasible based on soil conditions. Cushion blocks are blocks of material that are used with impact hammer pile drivers. They consist of blocks of material placed atop a piling during installation to minimize noise generated when driving the pile. Materials typically used for cushion blocks include wood, nylon and micarta (a composite material); At least 48 hours prior to pile-driving activities, the applicant shall notify building owners and occupants within 600 feet of the Project site of the dates, hours, and expected duration of such activities. 	<p>Project applicant shall submit construction noise reduction plan as supplement to Project plans for review and approval.</p>	<p>Community Development Department, Planning Division and Building Division</p>	<p>Prior to issuance of building permit.</p>
Biological Resources			
<p>Mitigation Measure BIO-1a: Avoidance. Initial site development activities, including vegetation clearing, shall be scheduled to avoid the nesting season. If Project activities are scheduled to take place outside the nesting season, all impacts to nesting birds would be avoided. The nesting season is considered to be from February 1 through August 31.</p>	<p>Project applicant shall submit construction plans, including construction schedule, for review and approval.</p>	<p>Community Development Department, Planning Division and Building Division</p>	<p>Prior to issuance of building permit.</p>

**TABLE IV-1 (Continued)
LANDBANK CENTRAL & WOLFE CAMPUS
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Procedure	Monitoring/ Reporting Responsibility	Monitoring/ Reporting Schedule
Biological Resources (cont.)			
<p>Mitigation Measure BIO-1b: Pre-construction/Pre-disturbance Surveys. If it is not possible to schedule vegetation clearing outside of the breeding season (between 1 September and 31 January), then pre-construction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests will be disturbed or destroyed during Project implementation. Surveys shall be conducted no more than ten days prior to the initiation of Project activities. During the survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, and buildings) within and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by Project activities, the ornithologist will determine the extent of a work-free buffer zone to be established around the nest (typically 300-500 feet for raptors [i.e., hawks and owls] and 100-250 feet for songbirds) to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during Project implementation. The extent of the work-free buffer zone shall be determined by the ornithologist based on the species' sensitivity to disturbance (which can vary among species); the level of noise or construction disturbance; line of sight between the nest and disturbance; ambient noise levels; and consideration of other topographical or artificial barriers. Work-free buffer zones shall be maintained until after the breeding season or until after the qualified ornithologist determines the young have fledged (usually late June through mid-July).</p>	<p>Project applicant shall retain a qualified ornithologist to conduct surveys subject to City approval. Applicant shall submit report of pre-construction surveys for review and approval by Community Development Department staff. If necessary, applicant shall submit for review and approval ornithologists' plan for establishing buffer zones.</p>	<p>Community Development Department, Planning Division and Building Division</p>	<p>Survey report to be submitted and approved prior to site disturbance. Monitoring of buffer zones during site development activities.</p>
<p>Mitigation Measure BIO-1c: Inhibition of Nesting. If Project activities will not be initiated until after the start of the nesting season, then all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation, as well as buildings) that are scheduled to be removed shall be removed prior to the start of the nesting season (i.e., prior to 1 February). This will preclude the initiation of nests on these substrates, and minimize the potential for delay of the Project due to the presence of active nests.</p>	<p>Project applicant shall submit construction schedule showing that site development activities will take place outside of nesting season.</p>	<p>Community Development Department, Planning Division and Building Division</p>	<p>Prior to issuance of demolition permit, or the removal of existing vegetation.</p>
<p>Mitigation Measure BIO-4: Pre-Construction Bat Surveys. No more than two weeks in advance of tree removal or demolition of underutilized or vacant buildings onsite, a qualified bat biologist shall conduct pre-construction surveys for bat roosts. If a bat colony is located within the Project site during pre-construction surveys, the Project shall be redesigned to avoid impacts. A no-disturbance buffer of 100 feet shall be established around active bat roosts being used for maternity or hibernation purposes. If there is a maternity colony present and the Project cannot be redesigned to avoid removal of the tree or structure inhabited by the bats, demolition of that tree or structure shall not commence until after young are flying (i.e., after July 31, confirmed by a qualified bat biologist) or before maternity colonies form the following year (i.e. prior to March 1). Bat roosts initiated during construction are presumed to be unaffected, and no buffer would be necessary. However, the "take" of individuals is prohibited.</p>	<p>Project applicant shall retain a qualified bat biologist to conduct surveys subject to City approval. Applicant shall submit report of pre-construction surveys for review and approval by Community Development Department staff. If necessary, applicant shall submit for review and approval biologist's plan for establishing buffer zones.</p>	<p>Community Development Department, Planning Division</p>	<p>Prior to issuance of demolition permit, or the removal of existing trees and buildings.</p>

**TABLE IV-1 (Continued)
LANDBANK CENTRAL & WOLFE CAMPUS
MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Procedure	Monitoring/ Reporting Responsibility	Monitoring/ Reporting Schedule
Cultural Resources			
<p>Mitigation Measure CUL-2: Archaeological Monitoring Program. Prior to authorization to proceed, or issuance of grading permits, an archaeologist meeting the Secretary of the Interior's Qualification Standards (qualified archaeologist) shall prepare an archaeological monitoring plan. The plan shall include (but not be limited to) the following issues:</p> <ul style="list-style-type: none"> • Training program for all construction and field workers involved in ground disturbance; • Person(s) responsible for conducting monitoring activities, including Native American monitor(s), if deemed necessary; • Person(s) responsible for overseeing and directing the monitors; • How the monitoring shall be conducted and the required format and content of monitoring reports; • Schedule for submittal of monitoring reports and person(s) responsible for review and approval of monitoring reports; • Protocol for notifications in case of encountering cultural resources, as well as methods for evaluating significance, developing and implementing plan to avoid or mitigate significant resource impacts, Native American participation and consultation, collection and curation plan, and consistency with applicable laws including California Health and Safety Code §7050.5 and PRC §5097.98; • Methods to ensure security of cultural resources sites if identified; • Protocol for notifying the City of Sunnyvale, Native Americans, and local authorities (i.e. Sheriff, Police) should site looting and other illegal activities occur during construction with reference to PRC §5097.99. <p>Monitoring shall be conducted following removal of the existing buildings and during initial grading of the Project site as well as during all deep (greater than 5 feet) ground disturbing activities. During the course of the monitoring, the qualified archaeologist may adjust the frequency—from continuous to intermittent—of the monitoring based on the conditions and professional judgment regarding the potential to impact resources.</p> <p>If prehistoric or historic-period cultural materials are encountered, all construction activities within 100 feet shall halt and the Project applicant and the City of Sunnyvale shall be notified. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.</p>	<p>Project applicant shall retain a qualified archaeologist to conduct archaeological monitoring, subject to City approval.</p> <p>If necessary, construction contractor shall stop work and the archaeologist, in consultation with the City and the appropriate Native American Representative, shall prepare and implement an Archaeological Research Design and Treatment Plan.</p>	<p>Community Development Department, Planning Division and Building Division</p>	<p>Retain archaeologist prior to issuance of grading permits.</p> <p>Archaeological Research Design and Treatment Plan to be prepared and implemented if significant archaeological materials are found, and prior to recommencing construction activities in area of find.</p>

TABLE IV-1 (Continued)
LANDBANK CENTRAL & WOLFE CAMPUS
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Implementation Procedure	Monitoring/ Reporting Responsibility	Monitoring/ Reporting Schedule
Cultural Resources (cont.)			
<p>If the find is determined to be potentially significant qualifying as either a historical resource pursuant to CEQA <i>Guidelines</i> §15064.5 or as a unique archaeological resource as defined by PRC §21083.2, the archaeologist in consultation with the City of Sunnyvale and the appropriate Native American representative shall determine whether preservation in place is feasible. Consistent with CEQA <i>Guidelines</i> §15126.4(b)(3), preservation in place may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist, in consultation with the City of Sunnyvale and the appropriate Native American representative, shall prepare and implement a detailed Archaeological Research Design and Treatment Plan (ARDTP). Treatment of unique archaeological resources shall follow the applicable requirements of PRC §21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the Project. The ARDTP shall include provisions for analysis of data in a regional context, reporting of results within a timely manner and subject to review and comments by the appropriate Native American representative before being finalized, curation of artifacts and data at a local facility acceptable to the appropriate Native American representative, and dissemination of final confidential reports to the appropriate Native American representative, the Northwest Information Center of the California Historical Resources Information System, the City of Sunnyvale, and interested professionals.</p>			
<p>Mitigation Measure CUL-4: Inadvertent Discovery of Human Remains. In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find shall cease. The Santa Clara County Coroner shall be contacted immediately. The Coroner will determine if the remains are Native American. If the remains are determined to be Native American, and no investigation of the cause of death is required, the Native American Heritage Commission (NAHC) will be contacted within 24 hours. The NAHC will then identify and contact the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American(s), who in turn would make recommendations to the Project applicant and the City of Sunnyvale for the appropriate means of treating the human remains and any grave goods.</p>	<p>Construction contractor shall stop work and notify County Coroner, if human remains are encountered. If remains are of Native American origin, Coroner will contact Native American Heritage Commission.</p>	<p>Community Development Department (Planning Division), County Coroner, Native American Heritage Commission</p>	<p>Monitoring shall be ongoing during demolition, site grading, and other soil disturbance activities.</p>

CHAPTER V

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APPENDIX A

Supplemental Traffic Analysis Technical Memorandum



Transportation
Consultants

TECHNICAL MEMORANDUM

Date: July 3, 2014 Project No.: 154-042 Task 4

To: Manuel Pineda
Assistant Director of Public Works
City of Sunnyvale

From: Chris Kinzel, P.E. Jurisdiction: Sunnyvale
Andrew Kluter, P.E.

Subject: **Revised Traffic Analysis for Landbank Transportation Impact Analysis and Responses to Landbank Draft EIR Traffic Comments**

The purpose of this technical memorandum is to provide updated, corrected level of service (LOS) results for subject. The new LOS results reflect a correction to traffic volumes missing from an analysis of traffic operations for the proposed Central Expressway / Commercial Street ramp intersection conversion to an at-grade, signalized intersection. In addition, TJKM is also providing responses to various public and agency comments as documented in ESA's June 9, 2014 memorandum to City of Sunnyvale staff.

Update to Transportation Impact Analysis

TJKM reanalyzed level of service (LOS) for all "plus Project" conditions at the Central Expressway/Commercial Street (#19) and Lawrence Expressway/Kifer Road (#18) intersections. The purpose was to determine impacts of converting Central/Commercial from an interchange with right-in/right-out ramps to an at-grade, signalized intersection as part of the Landbank Development conditions of approval. The LOS analysis included a re-routing of baseline (non-project) vehicle trips under Existing, Background, and Cumulative Conditions that would be expected to use a new signalized intersection at Central/Commercial. This updated analysis now accounts for re-routed trips that would make eastbound and westbound left turns at the proposed Central/Commercial signalized intersection. These left turns were previously omitted from the TIA analysis. It should be noted that LOS results from the Lawrence/Kifer intersection have been also updated, as it is anticipated that there will be some incremental change to overall delay and LOS at that intersection given the re-routing of baseline vehicle trips towards the new Central/Commercial intersection.

Tables 1, 2, and 3 show updated Existing plus Project, Background plus Project, and Cumulative plus Project LOS results, respectively. Updated Traffix analysis sheets that also include revised traffic volumes for all "plus Project" scenarios are included in Appendix A.

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Table I: Existing vs. Existing plus Project Conditions

Intersection		Peak Hour	LOS Standard	Intersection Control	Existing Conditions		Existing plus Project Conditions (Jan. 2014 TIA)		Existing plus Project Conditions (Revised)	
					LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
18	Lawrence Expressway/Kifer Road	A.M.	E	Signal	C	28.2	C	28.2	C	28.5
		P.M.			E	74.6	E	74.6	E-	78.9
19	Commercial Street/Central Expressway	A.M.	E	Two-Way-Yield/Signal	E	49.4	A	6.2	B	12.5
		P.M.			F/0.78*	55.1	C	26.2	D+	37.6

- Notes: 1) LOS=Level of Service, Delay = Average control delay per vehicle, sec = seconds
2) Signalized and all-way stop controlled intersections – Delay/LOS is for overall intersection
3) Unsignalized two-way yield controlled intersections – Delay/LOS is for critical minor stop-controlled approach.
4) **Bold** indicates LOS exceeds applicable jurisdictional standards for operating conditions.
5) Central/Commercial LOS/delay results are for current ramp configuration under Existing Conditions, and for at-grade signalized intersection under Existing plus Project Conditions.
* The average control delay for critical movements at Intersection of Lawrence Expressway/Kifer Road
Source: TJKM Transportation Consultants, January and June 2014

Under Existing plus Project Conditions, it is anticipated that operations at both the Central / Commercial and Lawrence / Kifer intersections would remain acceptable with the addition of project traffic and with the inclusion of baseline eastbound and westbound left turns at the proposed new Central / Commercial signalized intersection. However, compared to the Final TIA in January 2014, Table I shows that the addition of eastbound and westbound left turns at Central/Commercial has yielded higher delay and worsened LOS at that intersection (A to B in a.m. and C to D+ in p.m.), though the overall intersection would still meet County standards of LOS E or better. At the Lawrence/Kifer intersection, overall delay has slightly increased under the updated Existing plus Project analysis but overall LOS remains within County standards.

Table 2: Background vs. Background plus Project Conditions

Intersection		Peak Hour	LOS Standard	Intersection Control	Background Conditions		Background plus Project Conditions (Jan. 2014 TIA)		Background plus Project Conditions (Revised)	
					LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
18	Lawrence Expressway/Kifer Road	A.M.	E	Signal	C	28.2	C	28.2	C	28.6
		P.M.			E	74.3	E	74.3	E-	79.0
19	Commercial Street/Central Expressway	A.M.	E	Two-Way-Yield/Signal	F/0.50*	56.6	A	6.9	B	14.1
		P.M.			F/0.81*	61.0	C	31.6	D	43.5

- Notes: 1) LOS=Level of Service, Delay = Average control delay per vehicle, sec = seconds
2) Signalized and all-way stop controlled intersections – Delay/LOS is for overall intersection
3) Unsignalized two-way yield controlled intersections – Delay/LOS is for critical minor stop-controlled approach.
4) **Bold** indicates LOS exceeds applicable jurisdictional standards for operating conditions.
5) Central/Commercial LOS/delay results are for current ramp configuration under Background Conditions, and for at-grade signalized intersection under Background plus Project Conditions.
* The average control delay for critical movements at Intersection of Lawrence Expressway/Kifer Road
** Critical v/c values are reported for the intersection operating at unacceptable LOS
Source: TJKM Transportation Consultants, January and June 2014

Under Background plus Project Conditions, it is anticipated that operations at both the Central / Commercial and Lawrence / Kifer intersections would remain acceptable with the addition of project traffic and with the inclusion of baseline eastbound and westbound left turns at the proposed new Central / Commercial signalized intersection. However, compared to the Final TIA in January 2014, Table 2 shows that the addition of eastbound and westbound left turns at Central/Commercial has yielded higher delay and worsened LOS at that intersection (A to B in a.m. and C to D in p.m.), though the overall intersection would still meet County standards of LOS E or better. At the Lawrence/Kifer intersection, overall delay has slightly increased under the updated Background plus Project analysis but overall LOS remains within County standards.

Table 3: Cumulative vs. Cumulative plus Project Conditions

Intersection	Peak Hour	LOS Standard	Intersection Control	Cumulative Conditions		Cumulative plus Project Conditions (Jan. 2014 TIA)		Cumulative plus Project Conditions (Revised)	
				LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
18 Lawrence Expressway/Kifer Road	A.M.	E	Signal	C-	33.6	C-	33.9	C-	34.6
	P.M.			F/2.02**	106.4	F/2.02**	106.4	F/2.02**	106.2
				Critical Mvmt	537.6*	Critical Mvmt	537.6*	Critical Mvmt	537.6*
19 Commercial Street/Central Expressway	A.M.	E	Two-Way-Yield/Signal	F/0.76**	118.7	B	17.8	C	28.7
	P.M.			F/1.09**	139.4	E	62.3	E-	75.4

- Notes: 1) LOS=Level of Service, Delay = Average control delay per vehicle, sec = seconds, mvmt = movement
 2) Signalized and all-way stop controlled intersections – Delay/LOS is for overall intersection
 3) Unsignalized two-way yield controlled intersections – Delay/LOS is for critical minor stop-controlled approach.
 4) **Bold** indicates LOS exceeds applicable jurisdictional standards for operating conditions.
 5) Central/Commercial LOS/delay results are for current ramp configuration under Cumulative Conditions, and for at-grade signalized intersection under Cumulative plus Project Conditions.
 * The average control delay for critical movements at Intersection of Lawrence Expressway/Kifer Road
 ** Critical v/c values are reported for the intersection operating at unacceptable LOS

Source: TJKM Transportation Consultants, January and June 2014

Under Cumulative plus Project Conditions, it is anticipated that operations at the Central / Commercial intersection would remain acceptable with the addition of project traffic and with the inclusion of baseline eastbound and westbound left turns at the proposed new Central / Commercial signalized intersection. However, compared to the Final TIA in January 2014, Table 3 shows that the addition of eastbound and westbound left turns at Central/Commercial has yielded higher delay and worsened LOS at that intersection (B to C in a.m. and E to E- in p.m.), though the overall intersection would still meet County standards of LOS E or better.

At the Lawrence/Kifer intersection, the addition of eastbound and westbound left turns to the Central/Commercial intersection is expected to yield similar LOS, delay, and volume-to-capacity (v/c) ratios. During the a.m. peak hour under Cumulative plus Project Conditions, service levels are expected to remain at LOS C-, with slight increases in average delay compared to Cumulative Conditions. During the p.m. peak hour, the LOS F condition is expected to remain; however v/c is expected to remain the same, as well as average delay for the intersection's critical movement (eastbound right turn). As a result, no new significant impacts are expected at the Lawrence/Kifer intersection with respect to the installation of a new traffic signal at the Central/Commercial intersection.

Responses to Landbank Draft EIR Comments

TJKM offers the following responses to agency comments on the Landbank Draft Environmental Impact Report as documented by ESA for City of Sunnyvale staff.

Appropriateness of Mitigation Measure TR-1. This refers to Santa Clara County Roads and Airports comments on the proposed conversion of the Commercial Street on/off ramps at Central Expressway to an at-grade, signalized intersection. TJKM conducted an additional follow up analysis of the total cumulative impact of the conversion in terms of vehicle-hours of total intersection delay. Standard analyses tally the average seconds of delay to each motorist, but do not account for the cumulative impacts along an entire corridor. TJKM found that under each “plus Project” scenario, the change in total intersection delay with signal conversion was significantly higher than if the existing geometry remained, due primarily to the delay introduced to eastbound and westbound through volumes that are currently under free flow conditions. For example, the change in total intersection delay at Central/Commercial from Cumulative Conditions to Cumulative plus Project Conditions during the p.m. peak hour is expected to be 13.9 vehicle-hours under current geometric conditions, whereas it would grow to 88.1 vehicle-hours with a new signal. Similar differences in total intersection delay changes are also expected at the nearby Lawrence/Kifer intersection. For this reason, TJKM suggests that a traffic signal not be installed at this intersection.

VTA CMP Transportation Impact Analysis Guidelines. TJKM correctly followed VTA TIA guidelines with respect to LOS reporting on Lawrence Expressway. The VTA guidelines state that a project would create a significant traffic impact at a County intersection already at LOS F if “addition of the project traffic increases the average control delay for critical movements by four (4) seconds or more, and project traffic increases the critical v/c value by 0.01 or more.” Since none of the Lawrence Expressway intersections were LOS F under Existing plus Project Conditions (the table in question), v/c was not reported. Per these guidelines, however, TJKM reported v/c results for the LOS F condition under Cumulative and Cumulative plus Project Conditions at Lawrence/Kifer.

In regards to study intersection selection, TJKM followed VTA TIA guidelines, which state that a CMP intersection is to be included in the analysis if any one of the following conditions are met:

- 1) A proposed project is expected to add 10 or more peak hour vehicles per lane to any intersection movement
- 2) The intersection is adjacent to the project
- 3) Based on engineering judgment, Lead Agency staff (in this case, City of Sunnyvale) determines that the intersection be included in the analysis

Appropriate Year for Cumulative Analysis. TJKM analyzed and reported Cumulative traffic conditions 10 years out from Existing Conditions (Existing Conditions is 2013 in project TIA). The selection and analysis of the TIA’s future year (2023 rather than 2035) is appropriate, as it is consistent with current VTA TIA guidelines as well as City of Sunnyvale TIA practice for long-term year analysis.

Expanded Analysis of State Highways. TJKM’s TIA conducted an analysis of freeway segments (three on US 101) that could be impacted by project traffic. VTA guidelines state a project would have an impact if it adds volumes equal to or greater than one percent of a freeway segment’s capacity. Because the project is not expected to add volumes equal to or greater than one percent of capacity to any of the US 101 segments, analysis was not carried through to Background or Cumulative Conditions since this conclusion would not change whether segment capacity remains

the same or increases in the future. The same conclusions were reached with respect to State Route (SR) 237 and SR 82 segments in the project vicinity.

Regarding State Route (SR) 82, based on expected project vehicle trip assignments, fewer than 10 trips per lane per approach are expected to be added to SR 82 intersections in the project vicinity, and therefore were not included in the traffic analysis consistent with VTA TIA guidelines. A similar conclusion was reached for US 101 and SR 237 freeway ramps and ramp intersections in the project vicinity.

Jack Hutchison comments, February 3, 2014.

- 1) See earlier comments relative to signalization effects on total vehicle delay at Central / Commercial and Lawrence / Kifer intersections.
- 2) TJKM's understanding is that the at-grade signalized intersection conversion is intended to facilitate pedestrian and bicycle connectivity, including connection and completion of proposed bicycle lane facilities on Commercial Street.
- 3) TJKM's understanding is that the TDM discount on trip generation can be taken since the applicant would be required to provide shuttle and/or financial incentives as a condition of project approval.

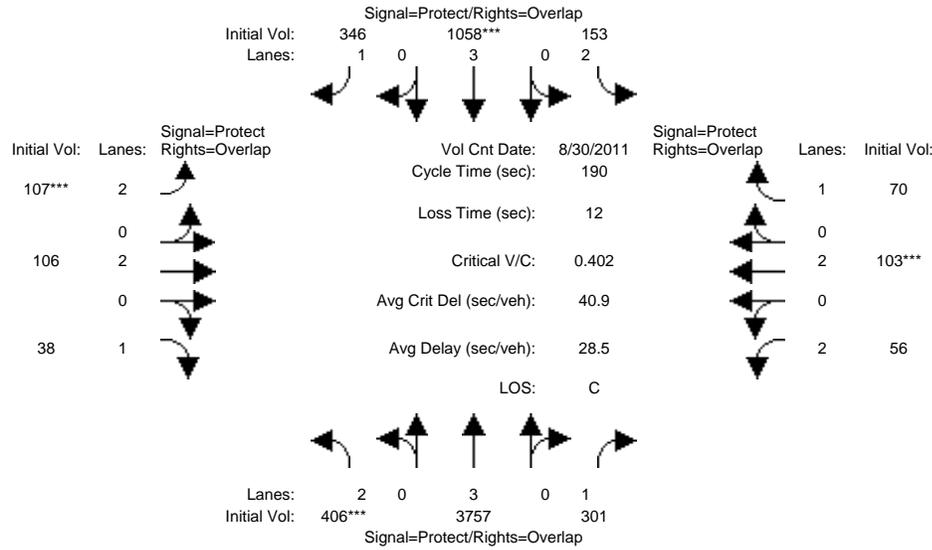
TJKM used peak hour factors (PHFs) based on existing collected counts and loss times based on timing sheets as available. Some intersection counts and PHFs came directly from Hexagon's Traffix file reflecting the recent City Transportation Strategic Program (TSP) analysis. TJKM used the volumes/PHFs directly from this file only for those study intersections (and peak hours) overlapping with the TSP analysis for consistency in reporting LOS traffic conditions established by the TSP.

Appendix A: LOS Analysis Sheets – Revision to Existing plus Project, Background plus Project, and Cumulative plus Project Conditions

TJKM -- Sunnyvale Landbank -- P154-042 Task 4

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing plus Project - AM

Intersection #18: 18. Lawrence Expwy. & Kifer Rd.



Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	14	10	10	14	115	10	14	10	10	14	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>> Count Date: 30 Aug 2011 <<											
Base Vol:	378	3742	301	153	1057	406	133	106	30	56	103	70
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	378	3742	301	153	1057	406	133	106	30	56	103	70
Added Vol:	4	39	0	0	8	0	0	0	1	0	0	0
PasserByVol:	24	-24	0	0	-7	-60	-26	0	7	0	0	0
Initial Fut:	406	3757	301	153	1058	346	107	106	38	56	103	70
User Adj:	1.00	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	406	3081	301	153	1058	346	107	106	38	56	103	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	406	3081	301	153	1058	346	107	106	38	56	103	70
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	406	3081	301	153	1058	346	107	106	38	56	103	70

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750

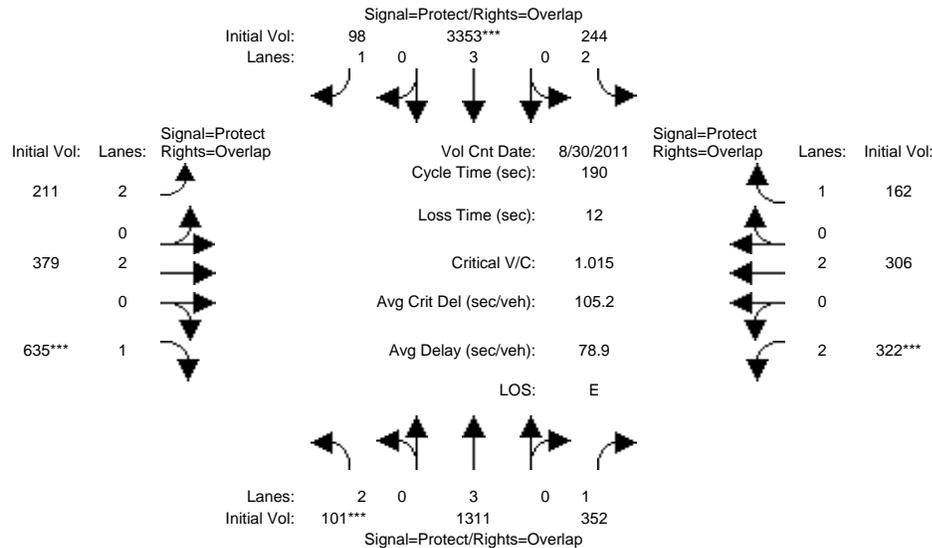
Capacity Analysis Module:												
Vol/Sat:	0.13	0.54	0.17	0.05	0.19	0.20	0.03	0.03	0.02	0.02	0.03	0.04
Crit Moves:	****				****		****				****	
Green/Cycle:	0.16	0.70	0.78	0.10	0.64	0.72	0.08	0.06	0.22	0.08	0.06	0.16
Volume/Cap:	0.80	0.77	0.22	0.48	0.29	0.28	0.44	0.50	0.10	0.23	0.49	0.26
Delay/Veh:	85.2	19.2	5.8	81.7	14.6	9.6	84.8	90.9	57.0	80.1	90.4	69.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.2	19.2	5.8	81.7	14.6	9.6	84.8	90.9	57.0	80.1	90.4	69.0
LOS by Move:	F	B	A	F	B	A	F	F	E	F	F	E
HCM2kAvgQ:	356	1004	127	131	206	175	95	87	44	47	84	92

Note: Queue reported is the distance per lane in feet.

TJKM -- Sunnyvale Landbank -- P154-042 Task 4

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Existing plus Project - PM

Intersection #18: 18. Lawrence Expwy. & Kifer Rd.



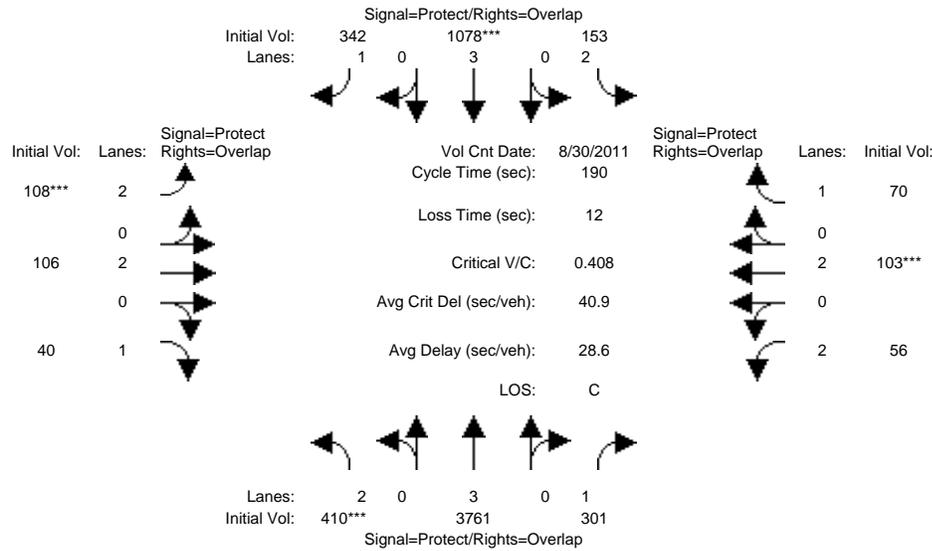
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	14	10	10	14	115	10	14	10	10	14	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
0.33 2.00 1.34 0.66 t	Date: 30 Aug 2011 <<											
Base Vol:	82	1323	352	244	3341	115	235	379	607	322	306	162
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	1323	352	244	3341	115	235	379	607	322	306	162
Added Vol:	1	6	0	0	34	0	0	0	6	0	0	0
PasserByVol:	18	-18	0	0	-22	-17	-24	0	22	0	0	0
Initial Fut:	101	1311	352	244	3353	98	211	379	635	322	306	162
User Adj:	1.00	1.00	1.00	1.00	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	101	1311	352	244	2749	98	211	379	635	322	306	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	1311	352	244	2749	98	211	379	635	322	306	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	101	1311	352	244	2749	98	211	379	635	322	306	162
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.23	0.20	0.08	0.48	0.06	0.07	0.10	0.36	0.10	0.08	0.09
Crit Moves:	***			***					***	***		
Green/Cycle:	0.08	0.54	0.61	0.18	0.64	0.75	0.11	0.14	0.22	0.08	0.11	0.29
Volume/Cap:	0.41	0.43	0.33	0.43	0.76	0.08	0.63	0.72	1.67	1.31	0.73	0.32
Delay/Veh:	84.1	25.7	17.7	67.8	24.2	6.3	85.7	82.3	385.5	250.4	88.2	51.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	84.1	25.7	17.7	67.8	24.2	6.3	85.7	82.3	385.5	250.4	88.2	51.4
LOS by Move:	F	C	B	E	C	A	F	F	F	F	F	D
HCM2kAvgQ:	80	362	254	181	871	38	189	279	1788	458	237	183

Note: Queue reported is the distance per lane in feet.

TJKM -- Sunnyvale Landbank -- P154-042 Task 4

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Background plus Project - AM

Intersection #18: 18. Lawrence Expwy. & Kifer Rd.



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	14	10	10	14	115	10	14	10	10	14	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 30 Aug 2011 <<

Base Vol:	378	3742	301	153	1057	406	133	106	30	56	103	70
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	378	3742	301	153	1057	406	133	106	30	56	103	70
Added Vol:	4	47	0	0	30	-4	3	0	1	0	0	0
PasserByVol:	28	-28	0	0	-9	-60	-28	0	9	0	0	0
Initial Fut:	410	3761	301	153	1078	342	108	106	40	56	103	70
User Adj:	1.00	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	410	3084	301	153	1078	342	108	106	40	56	103	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	410	3084	301	153	1078	342	108	106	40	56	103	70
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	410	3084	301	153	1078	342	108	106	40	56	103	70

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750

Capacity Analysis Module:

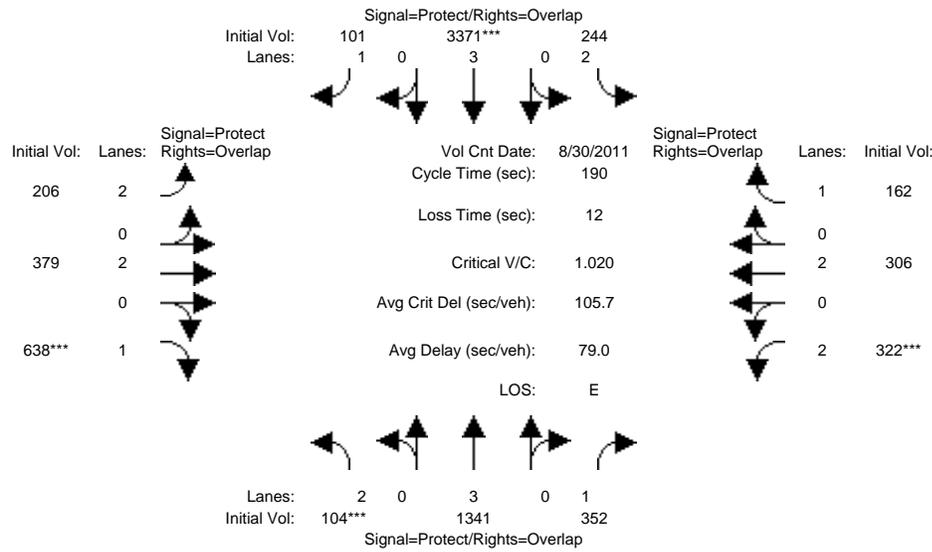
Vol/Sat:	0.13	0.54	0.17	0.05	0.19	0.20	0.03	0.03	0.02	0.02	0.03	0.04
Crit Moves:	***				****		****				****	
Green/Cycle:	0.16	0.70	0.78	0.10	0.64	0.72	0.08	0.06	0.22	0.08	0.06	0.16
Volume/Cap:	0.81	0.77	0.22	0.48	0.30	0.27	0.44	0.50	0.11	0.23	0.49	0.26
Delay/Veh:	85.8	19.2	5.8	81.7	14.7	9.5	84.9	90.9	57.1	80.1	90.4	69.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.8	19.2	5.8	81.7	14.7	9.5	84.9	90.9	57.1	80.1	90.4	69.0
LOS by Move:	F	B	A	F	B	A	F	F	E	F	F	E
HCM2kAvgQ:	361	1006	127	131	211	173	96	87	46	47	84	92

Note: Queue reported is the distance per lane in feet.

TJKM -- Sunnyvale Landbank -- P154-042 Task 4

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Background plus Project - PM

Intersection #18: 18. Lawrence Expwy. & Kifer Rd.



Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	14	10	10	14	115	10	14	10	10	14	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module:	>> Count Date: 30 Aug 2011 <<											
Base Vol:	82	1323	352	244	3341	115	235	379	607	322	306	162
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	1323	352	244	3341	115	235	379	607	322	306	162
Added Vol:	1	39	0	0	55	3	-5	0	6	0	0	0
PasserByVol:	21	-21	0	0	-25	-17	-24	0	25	0	0	0
Initial Fut:	104	1341	352	244	3371	101	206	379	638	322	306	162
User Adj:	1.00	1.00	1.00	1.00	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	104	1341	352	244	2764	101	206	379	638	322	306	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	1341	352	244	2764	101	206	379	638	322	306	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	104	1341	352	244	2764	101	206	379	638	322	306	162

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750

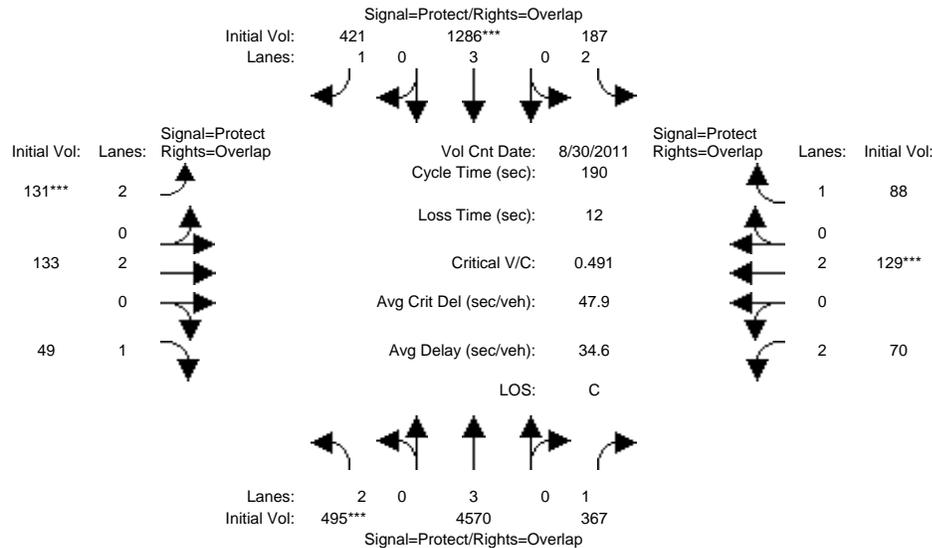
Capacity Analysis Module:												
Vol/Sat:	0.03	0.24	0.20	0.08	0.48	0.06	0.07	0.10	0.36	0.10	0.08	0.09
Crit Moves:	****				****				****	****		
Green/Cycle:	0.08	0.54	0.62	0.18	0.64	0.75	0.11	0.14	0.22	0.08	0.11	0.29
Volume/Cap:	0.42	0.44	0.33	0.44	0.76	0.08	0.61	0.72	1.68	1.31	0.73	0.32
Delay/Veh:	84.5	25.5	17.4	68.4	24.3	6.3	85.1	82.3	389.0	250.4	88.2	51.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	84.5	25.5	17.4	68.4	24.3	6.3	85.1	82.3	389.0	250.4	88.2	51.9
LOS by Move:	F	C	B	E	C	A	F	F	F	F	F	D
HCM2kAvgQ:	83	370	252	183	880	39	183	279	1802	458	237	184

Note: Queue reported is the distance per lane in feet.

TJKM -- Sunnyvale Landbank -- P154-042 Task 4

Level Of Service Computation Report
 2000 HCM Operations (Future Volume Alternative)
 Cumulative plus Project - AM

Intersection #18: 18. Lawrence Expwy. & Kifer Rd.



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	14	10	10	14	115	10	14	10	10	14	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 30 Aug 2011 <<

Base Vol:	378	3742	301	153	1057	406	133	106	30	56	103	70
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.25	1.25	1.25	1.25	1.25	1.25
Initial Bse:	461	4561	367	187	1288	495	167	133	38	70	129	88
Added Vol:	4	39	0	0	8	0	0	0	1	0	0	0
PasserByVol:	30	-30	0	0	-10	-74	-36	0	10	0	0	0
Initial Fut:	495	4570	367	187	1286	421	131	133	49	70	129	88
User Adj:	1.00	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	495	3748	367	187	1286	421	131	133	49	70	129	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	495	3748	367	187	1286	421	131	133	49	70	129	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	495	3748	367	187	1286	421	131	133	49	70	129	88

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	3150	5700	1750	3150	5700	1750	3150	3800	1750	3150	3800	1750

Capacity Analysis Module:

Vol/Sat:	0.16	0.66	0.21	0.06	0.23	0.24	0.04	0.03	0.03	0.02	0.03	0.05
Crit Moves:	***			****			****			****		
Green/Cycle:	0.16	0.72	0.79	0.08	0.64	0.72	0.08	0.06	0.22	0.08	0.06	0.14
Volume/Cap:	0.97	0.92	0.26	0.70	0.35	0.34	0.53	0.63	0.13	0.29	0.61	0.36
Delay/Veh:	109.3	25.8	5.3	94.4	15.4	10.2	87.9	96.6	57.5	81.2	95.6	74.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	109.3	25.8	5.3	94.4	15.4	10.2	87.9	96.6	57.5	81.2	95.6	74.1
LOS by Move:	F	C	A	F	B	B	F	F	E	F	F	E
HCM2kAvgQ:	497	1630	152	182	264	226	120	115	57	60	110	121

Note: Queue reported is the distance per lane in feet.

TJKM -- Sunnyvale Landbank -- P154-042 Task 4
Cumulative plus Project Conditions
PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #18 18. Lawrence Expwy. & Kifer Rd.

Cycle (sec): 190 Critical Vol./Cap.(X): 1.224
Loss Time (sec): 12 Average Delay (sec/veh): 106.2
Optimal Cycle: 180 Level Of Service: F

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Ovl), Min. Green, Y+R, Lanes.

Volume Module: >> Count Date: 30 Aug 2011 <<

Table with 12 columns representing different traffic movements and various volume metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

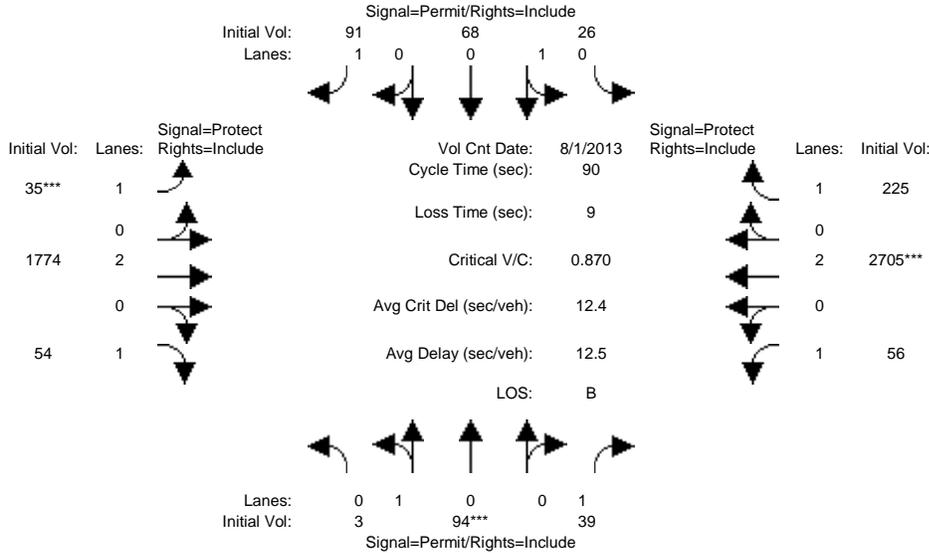
Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the distance per lane in feet.

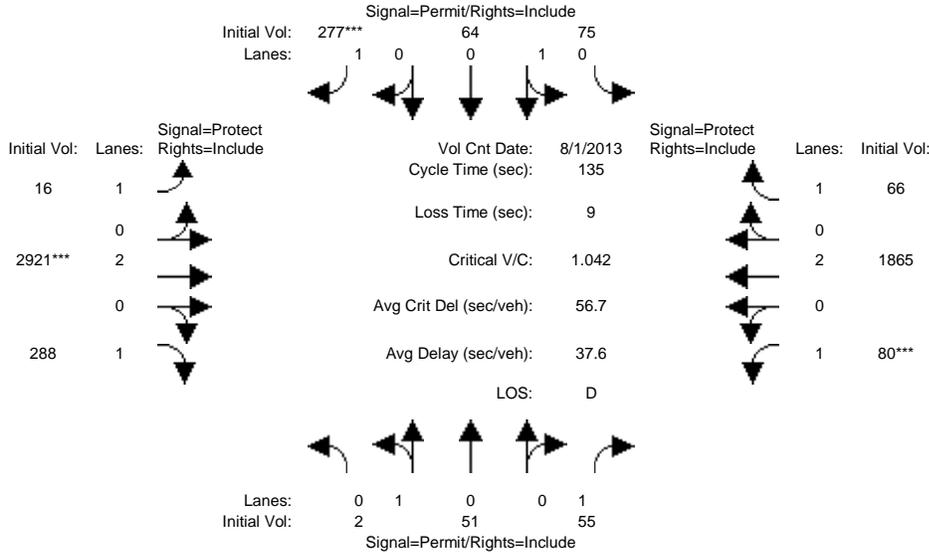
Intersection #19: 19. Commercial St. & Central Expressway



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 1 Aug 2013 << 8:00 AM - 9:00 AM												
Base Vol:	0	0	27	0	0	66	0	1774	54	0	2688	186
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	27	0	0	66	0	1774	54	0	2688	186
Added Vol:	0	4	0	5	1	15	0	9	0	0	37	33
PasserByVol:	3	90	12	21	67	10	35	-9	0	56	-20	6
Initial Fut:	3	94	39	26	68	91	35	1774	54	56	2705	225
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	94	39	26	68	91	35	1774	54	56	2705	225
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	94	39	26	68	91	35	1774	54	56	2705	225
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	3	94	39	26	68	91	35	1774	54	56	2705	225
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.03	0.97	1.00	0.29	0.71	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	59	1836	1750	513	1343	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.02	0.05	0.05	0.05	0.02	0.47	0.03	0.03	0.71	0.13
Crit Moves:	****						****			****		
Green/Cycle:	0.06	0.06	0.06	0.06	0.06	0.06	0.02	0.79	0.79	0.05	0.82	0.82
Volume/Cap:	0.87	0.87	0.38	0.86	0.86	0.88	0.87	0.59	0.04	0.59	0.87	0.16
Delay/Veh:	89.3	89.3	43.1	87.8	87.8	95.6	136.0	4.1	2.1	51.3	8.1	1.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	89.3	89.3	43.1	87.8	87.8	95.6	136.0	4.1	2.1	51.3	8.1	1.8
LOS by Move:	F	F	D	F	F	F	F	A	A	D	A	A
HCM2kAvgQ:	128	128	40	125	125	131	70	257	9	67	671	37

Note: Queue reported is the distance per lane in feet.

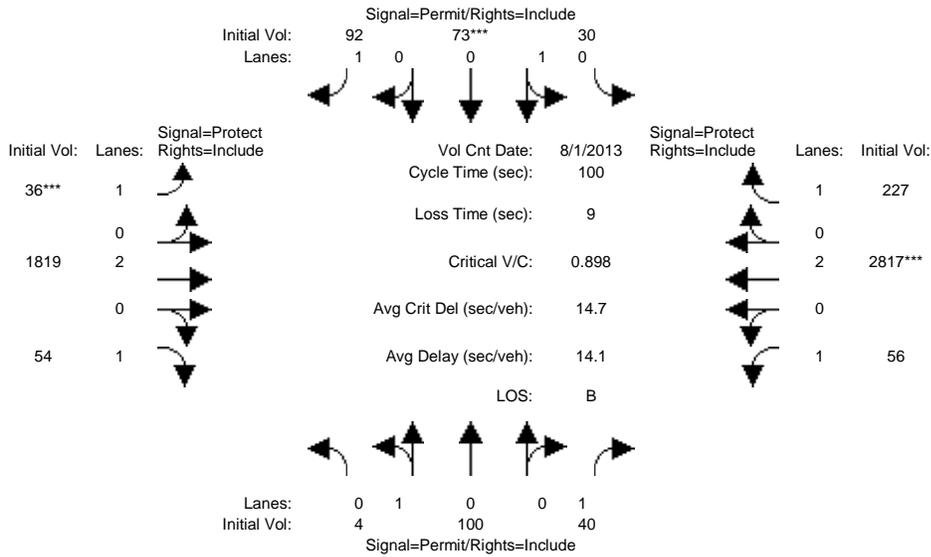
Intersection #19: 19. Commercial St. & Central Expressway



Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 1 Aug 2013 << 5:00 PM - 6:00 PM												
Base Vol:	0	0	48	0	0	202	0	2901	288	0	1929	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	48	0	0	202	0	2901	288	0	1929	57
Added Vol:	0	1	0	21	6	70	0	41	0	0	6	5
PasserByVol:	2	50	7	54	58	5	16	-21	0	80	-70	4
Initial Fut:	2	51	55	75	64	277	16	2921	288	80	1865	66
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	51	55	75	64	277	16	2921	288	80	1865	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	51	55	75	64	277	16	2921	288	80	1865	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	2	51	55	75	64	277	16	2921	288	80	1865	66
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.04	0.96	1.00	0.56	0.44	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	71	1822	1750	980	836	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.08	0.08	0.16	0.01	0.77	0.16	0.05	0.49	0.04
Crit Moves:						****		****			****	
Green/Cycle:	0.15	0.15	0.15	0.15	0.15	0.15	0.01	0.74	0.74	0.04	0.77	0.77
Volume/Cap:	0.18	0.18	0.21	0.50	0.50	1.04	0.64	1.04	0.22	1.04	0.64	0.05
Delay/Veh:	50.3	50.3	50.5	54.1	54.1	123.9	110.7	47.0	5.7	179.3	7.7	3.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.3	50.3	50.5	54.1	54.1	123.9	110.7	47.0	5.7	179.3	7.7	3.8
LOS by Move:	D	D	D	D	D	F	F	D	A	F	A	A
HCM2kAvgQ:	49	49	55	149	149	455	41	1812	99	169	443	18

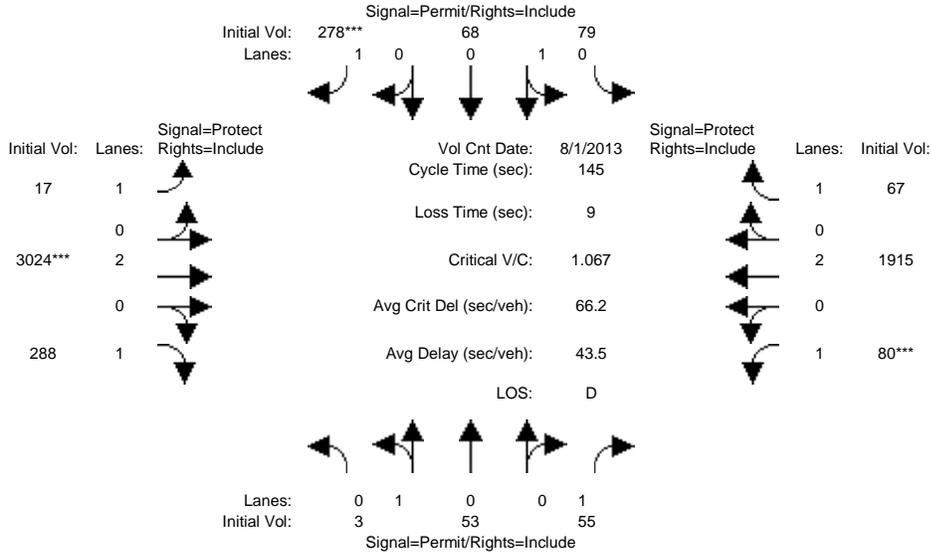
Note: Queue reported is the distance per lane in feet.

Intersection #19: 19. Commercial St. & Central Expressway



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 1 Aug 2013 << 8:00 AM - 9:00 AM												
Base Vol:	0	0	27	0	0	66	0	1774	54	0	2688	186
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	27	0	0	66	0	1774	54	0	2688	186
Added Vol:	0	4	0	5	1	15	0	57	0	0	149	33
PasserByVol:	4	96	13	25	72	11	36	-12	0	56	-20	8
Initial Fut:	4	100	40	30	73	92	36	1819	54	56	2817	227
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	100	40	30	73	92	36	1819	54	56	2817	227
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	100	40	30	73	92	36	1819	54	56	2817	227
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	4	100	40	30	73	92	36	1819	54	56	2817	227
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.04	0.96	1.00	0.31	0.69	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	73	1821	1750	540	1314	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.02	0.06	0.06	0.05	0.02	0.48	0.03	0.03	0.74	0.13
Crit Moves:					****			****			****	
Green/Cycle:	0.06	0.06	0.06	0.06	0.06	0.06	0.02	0.79	0.79	0.05	0.83	0.83
Volume/Cap:	0.89	0.89	0.37	0.90	0.90	0.85	0.90	0.60	0.04	0.60	0.90	0.16
Delay/Veh:	96.7	96.7	47.2	100.1	100	90.0	151.3	4.4	2.2	56.9	9.8	1.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	96.7	96.7	47.2	100.1	100	90.0	151.3	4.4	2.2	56.9	9.8	1.8
LOS by Move:	F	F	D	F	F	F	F	A	A	E	A	A
HCM2kAvgQ:	144	144	43	147	147	134	76	285	10	72	826	39
Note: Queue reported is the distance per lane in feet.												

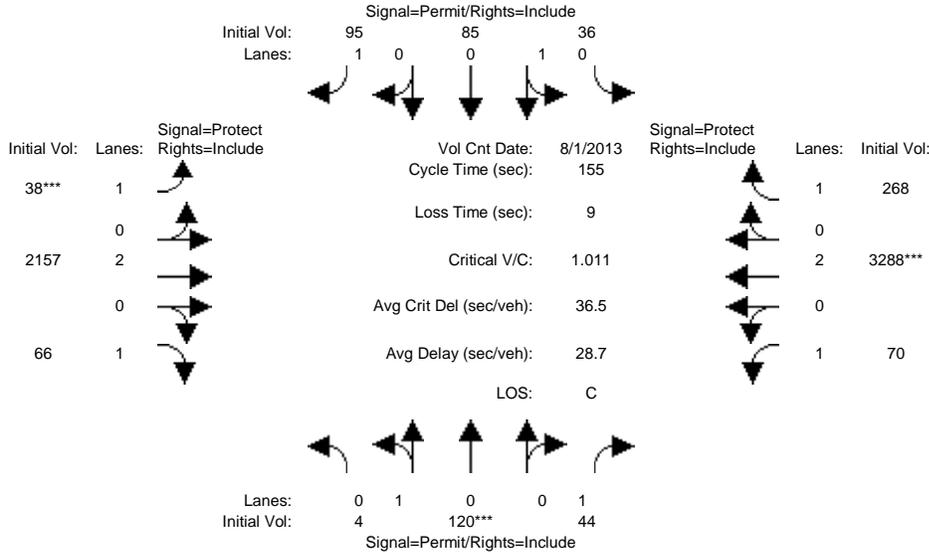
Intersection #19: 19. Commercial St. & Central Expressway



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date:	1 Aug 2013 << 5:00 PM - 6:00 PM											
Base Vol:	0	0	48	0	0	202	0	2901	288	0	1929	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	48	0	0	202	0	2901	288	0	1929	57
Added Vol:	0	1	0	21	6	70	0	144	0	0	56	5
PasserByVol:	3	52	7	58	62	6	17	-21	0	80	-70	5
Initial Fut:	3	53	55	79	68	278	17	3024	288	80	1915	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	53	55	79	68	278	17	3024	288	80	1915	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	53	55	79	68	278	17	3024	288	80	1915	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	3	53	55	79	68	278	17	3024	288	80	1915	67
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.06	0.94	1.00	0.56	0.44	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	101	1790	1750	976	840	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.08	0.08	0.16	0.01	0.80	0.16	0.05	0.50	0.04
Crit Moves:	****											
Green/Cycle:	0.15	0.15	0.15	0.15	0.15	0.15	0.01	0.75	0.75	0.04	0.77	0.77
Volume/Cap:	0.20	0.20	0.21	0.54	0.54	1.07	0.65	1.07	0.22	1.07	0.65	0.05
Delay/Veh:	54.5	54.5	54.6	59.4	59.4	136.2	117.0	56.4	5.7	192.7	8.0	3.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.5	54.5	54.6	59.4	59.4	136.2	117.0	56.4	5.7	192.7	8.0	3.9
LOS by Move:	D	D	D	E	E	F	F	E	A	F	A	A
HCM2kAvgQ:	56	56	59	171	171	490	44	2044	103	179	484	19

Note: Queue reported is the distance per lane in feet.

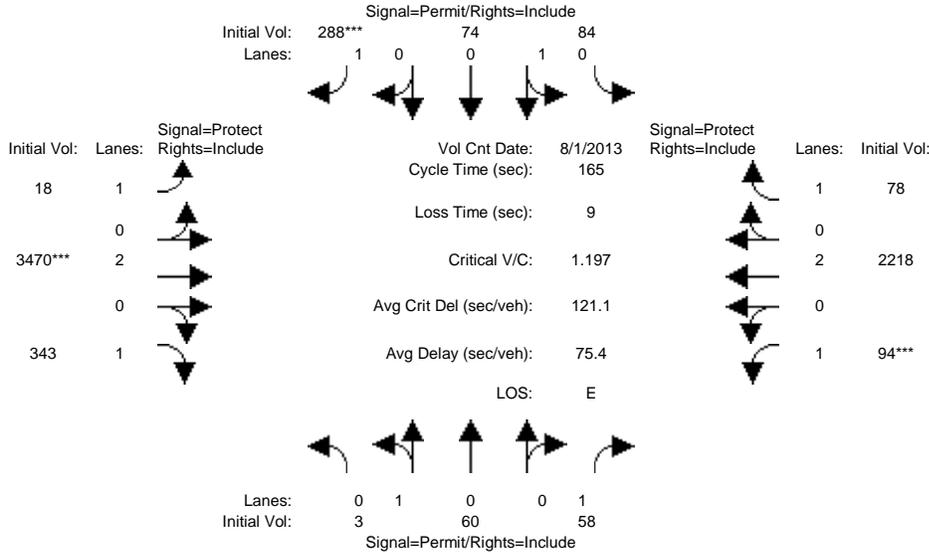
Intersection #19: 19. Commercial St. & Central Expressway



Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
----- ----- ----- ----- -----												
Volume Module: >> Count Date:	1 Aug 2013 << 8:00 AM - 9:00 AM											
Base Vol:	0	0	27	0	0	66	0	1774	54	0	2688	186
Growth Adj:	1.00	1.00	1.00	1.05	1.05	1.05	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	0	0	27	0	0	69	0	2163	66	0	3277	227
Added Vol:	0	4	0	5	1	15	0	9	0	0	37	33
PasserByVol:	4	116	17	31	84	11	38	-15	0	70	-26	8
Initial Fut:	4	120	44	36	85	95	38	2157	66	70	3288	268
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	120	44	36	85	95	38	2157	66	70	3288	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	120	44	36	85	95	38	2157	66	70	3288	268
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	4	120	44	36	85	95	38	2157	66	70	3288	268
----- ----- ----- ----- -----												
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.03	0.97	1.00	0.31	0.69	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	61	1834	1750	551	1302	1750	1750	3800	1750	1750	3800	1750
----- ----- ----- ----- -----												
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.03	0.07	0.07	0.05	0.02	0.57	0.04	0.04	0.87	0.15
Crit Moves:	****						****			****		
Green/Cycle:	0.06	0.06	0.06	0.06	0.06	0.06	0.02	0.82	0.82	0.06	0.86	0.86
Volume/Cap:	1.01	1.01	0.39	1.01	1.01	0.84	1.01	0.69	0.05	0.69	1.01	0.18
Delay/Veh:	156.7	157	71.7	157.1	157	112.1	226.0	6.5	2.6	90.3	29.7	2.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	156.7	157	71.7	157.1	157	112.1	226.0	6.5	2.6	90.3	29.7	2.0
LOS by Move:	F	F	E	F	F	F	F	A	A	F	C	A
HCM2kAvgQ:	235	235	64	234	234	175	102	539	16	121	2157	59

Note: Queue reported is the distance per lane in feet.

Intersection #19: 19. Commercial St. & Central Expressway



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 1 Aug 2013 << 5:00 PM - 6:00 PM												
Base Vol:	0	0	48	0	0	202	0	2901	288	0	1929	57
Growth Adj:	1.00	1.00	1.00	1.05	1.05	1.05	1.19	1.19	1.19	1.19	1.19	1.19
Initial Bse:	0	0	48	0	0	212	0	3450	343	0	2294	68
Added Vol:	0	1	0	21	6	70	0	41	0	0	6	5
PasserByVol:	3	59	10	63	68	6	18	-21	0	94	-82	5
Initial Fut:	3	60	58	84	74	288	18	3470	343	94	2218	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	60	58	84	74	288	18	3470	343	94	2218	78
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	60	58	84	74	288	18	3470	343	94	2218	78
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	3	60	58	84	74	288	18	3470	343	94	2218	78
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.05	0.95	1.00	0.55	0.45	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	90	1802	1750	966	851	1750	1750	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.09	0.09	0.16	0.01	0.91	0.20	0.05	0.58	0.04
Crit Moves:						****		****			****	
Green/Cycle:	0.14	0.14	0.14	0.14	0.14	0.14	0.01	0.76	0.76	0.04	0.79	0.79
Volume/Cap:	0.24	0.24	0.24	0.63	0.63	1.20	0.74	1.20	0.26	1.20	0.74	0.06
Delay/Veh:	64.0	64.0	64.0	72.4	72.4	192.9	155.3	112	5.9	242.8	9.4	3.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.0	64.0	64.0	72.4	72.4	192.9	155.3	112	5.9	242.8	9.4	3.7
LOS by Move:	E	E	E	E	E	F	F	F	A	F	A	A
HCM2kAvgQ:	73	73	72	217	217	615	52	3013	134	236	696	22
Note: Queue reported is the distance per lane in feet.												

APPENDIX B

Health Risk Assessment Technical Memorandum



memorandum

date July 9, 2014
to Dan Sicular
from Tim Rimpo
subject Health Risk Assessment for Landbank Central and Wolfe Campus EIR

This memo describes the results of a health risk assessment (HRA) conducted for the proposed Landbank Project in Sunnyvale, California. The HRA focuses on risks from emissions that would be generated during Project construction and operation. The HRA also evaluates cumulative health risks resulting from the Project plus other nearby emission sources. This HRA was prepared using guidance issued by the Bay Area Air Quality Management District (BAAQMD).^{1,2} The HRA concludes that the Project would not result in a significant health risk.

Toxic air contaminants (TACs) are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A wide range of sources, ranging from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are diverse and are assessed locally rather than regionally. TACs can cause long-term health effects such as a cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term acute effects such as eye watering, respiratory irritation, running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. Cancer risk is expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic substances differ in that there is an assumed safe level of exposure below which no negative health impact would occur. These levels are determined on a pollutant-by-pollutant basis. Acute and chronic exposure to non-carcinogens is expressed as a hazard index (HI), which is the ratio of expected exposure levels to an acceptable reference exposure level (REF).

Although not designated as a TAC, PM_{2.5} is the most harmful air pollutant in the San Francisco Bay Area Air Basin in terms of the associated impacts on public health. BAAQMD recommends characterizing potential health effects from exposure to directly emitted PM_{2.5} through comparison to its thresholds of significance. BAAQMD's thresholds of significance for TACs and PM_{2.5} are shown in **Table 1**.

¹ Bay Area Air Quality Management District. 2011. BAAQMD CEQA Guidelines, Updated May 2011.

² Bay Area Air Quality Management District. 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards.

TABLE 1
BAAQMD CEQA THRESHOLDS OF SIGNIFICANCE FOR TACS AND PM2.5

Pollutant	Construction-Related	Operational-Related
Risks and Hazards for New Sources and Receptors (Individual Project)	Same as Operational Threshold	Increased cancer risk of > 10 in a million, Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute), Ambient PM2.5 increase > 0.3 µg/m ³ annual average Zone of influence: 1,000-foot radius from property line of source or receptor
Risks and Hazards for New Sources and Receptors (Cumulative Threshold)	Same as Operational Threshold	Increased cancer risk of > 100 in a million, Increased non-cancer risk of > 10.0 Hazard Index (Chronic or Acute), Ambient PM2.5 increase > 0.8 µg/m ³ annual average Zone of influence: 1,000-foot radius from property line of source or receptor

SOURCE: Bay Area Air Quality Management District. 2011. BAAQMD CEQA Guidelines Updated May 2011

BAAQMD recommends that proposed Projects that include the siting of a new emissions source should assess impacts within 1,000 feet, taking into account both individual and nearby cumulative sources. Cumulative sources represent the combined total risk values of each individual source within the 1,000-foot evaluation zone.

Emissions modeling was conducted using the BAAQMD’s “Recommended Methods for Screening and Modeling Local Risks and Hazards, version 3.0” (May 2012). The ISCST3 dispersion model was used to estimate pollutant concentrations. The resulting concentrations were converted to health risks using BAAQMD protocols and guidance developed by the California Air Pollution Control Officers Association.³

Sensitive Receptors

Health risks were estimated at the closest sensitive receptors locations: the site of the planned Chung Tai Zen Center residences, located approximately 150 feet west of the Project site; and the Parkside Apartment Homes, located approximately 550 feet west northwest of the Project site.

Emission Sources

Construction

Diesel particulate matter (DPM) represents the primary TAC of concern from construction activity. DPM is emitted by on-and off-road construction equipment. DPM emissions represent a potential carcinogenic and chronic health risk but not an acute health risk.⁴

Operation

The primary TAC of concern from Project operation (that is, the period after the development has been constructed and is occupied) is DPM that would be emitted by occasional use of the backup diesel generator to be installed on the top level of the proposed parking garage. DPM concentrations and health risks were estimated for the closest sensitive receptors, which include the Zen Center Future Expansion (870 feet), the Zen Center

³ California Air Pollution Control Officers Association. 2009. Health Risk Assessments for Proposed Land Use Projects.

⁴ California Office of Environmental Health Hazard Assessment. 2014. Air Toxicology and Epidemiology. Available at: http://oehha.ca.gov/air/toxic_contaminants/index.html.

residences (1,000 feet), and the apartments located 1,384 feet northwest of the generator. The highest DPM concentrations and, consequently, the greatest health risks were found at the future Zen Center expansion site.

Cumulative

The cumulative analysis combines the Project-specific risks with the risks from nearby stationary and mobile TAC sources, as shown in Table 2. The risks for the stationary sources shown in Table 2 are based on BAAQMD's Santa Clara County Google Earth file that contains information on permitted sources in the Project area.⁵ The risks for the Central Expressway are based on BAAQMD's table for Santa Clara County PM2.5 concentrations and cancer risks generated from surface streets.

Results

Table 2 shows health risks associated with exposure to diesel particulate matter emissions from Project construction and operation. The Zen Center health risk estimate assumes 70 years of exposure to adults (the Zen Center residences are restricted to occupation by ordained monks associated with the Zen Center only) using the adult risk assumptions. The first two years are based on DPM concentrations from construction, the last 68 years to Landbank operational exposure (the emergency generator). The Parkside Apartment Homes health risk estimate assumes exposure to construction emissions during the third trimester of pregnancy and first two years of life, 14 years of exposure to operational emissions (in the 2 to 16 age group), and 54 years of exposure to operational emissions (in the 16 to 70 age category).

As shown in Table 2, health risks are less than BAAQMD's significance thresholds in all cases.

⁵ Although BAAQMD's guidance allows a correction to be made to health risks from stationary sources based on distance, this correction was not included in this table because cumulative health risks are less than significant without the correction.

**TABLE 2
HEALTH RISK ASSESSMENT RESULTS**

A. Health Risk: Chung Tai Zen Center Residences	Cancer	Chronic Hazard	PM2.5
Health Risk from Project Construction plus Operation	1.58	0.00281	0.0853
Threshold	10	1	1
Exceed Threshold?	No	No	No
Health Risk from Cumulative Sources			
City of Sunnyvale Station 2	8.27	0.003	0.002
Teledyne Cougar, Inc.	-	0.001	0
Rad-icon Imaging Corp	0	0	0
Lowe's HIW, Inc.	11.89	0.004	0.003
Ami Real Estate Plug and Play	44.32	0.016	0.079
City of Sunnyvale Corporation Yard	6.79	0.002	0.002
Phillips Semiconductor	0	0	0
Central Expressway	9.04	0.03	0.358
TOTAL - Project plus Cumulative	81.89	0.06	0.53
Cumulative Threshold	100	10	0.8
Exceed Threshold?	No	No	No
B. Health Risk: Parkside Apartment Homes	Cancer	Chronic Hazard	PM2.5
Health Risk from Project Construction plus Operation	4.06	0.00071	0.0210
Threshold	10	1	1
Exceed Threshold?	No	No	No
Health Risk from Cumulative Sources			
City of Sunnyvale Station 2	8.27	0.003	0.002
Teledyne Cougar, Inc.	-	0.001	0
Rad-icon Imaging Corp	0	0	0
Lowe's HIW, Inc.	11.89	0.004	0.003
Ami Real Estate Plug and Play	44.32	0.016	0.079
City of Sunnyvale Corporation Yard	6.79	0.002	0.002
Phillips Semiconductor	0	0	0
Central Expressway	9.04	0.03	0.358
TOTAL - Project plus Cumulative	84.37	0.06	0.47
Cumulative Threshold	100	10	0.8
Exceed Threshold?	No	No	No