March 18, 2008

SUBJECT: Mathilda Avenue Overhead Bridge Rehabilitation Project Environmental Impact Report (as Augmented by EIR Addendum) and Project Approval

REPORT IN BRIEF

This project involves widening and modifying the Mathilda Avenue bridge (at Evelyn Avenue and the Caltrain tracks) to address deficiencies which have been identified by Caltrans. The project is currently at the 65% phase of design. An Environmental Impact Report (EIR) has been prepared and certified by the City Council, and the Council acted to formally approve the project on November 28, 2006 (RTC 06-359). The City was subsequently sued by a resident. The lawsuit alleged that there were a number of deficiencies in the EIR and, therefore, the City had not adequately complied with the California Environmental Quality Act (CEQA). The Santa Clara County Superior Court heard the lawsuit and subsequently ruled that the EIR was compliant with CEQA except for the subject of construction noise. Specifically, the Court found that the City provided "no evidence that the six adopted mitigation measures will reduce the identified significant construction noise impact to levels below significance." On August 2, 2007, the Court issued a Peremptory Writ of Mandate, which directed the City to reconsider the portion of the EIR pertaining to construction noise mitigation.

In response to the Court's order, an EIR Addendum was prepared (Attachment A) and circulated for a 45 day public review period ending February 4, 2008. Notice of the Addendum was published in the Sunnyvale Sun, was posted on the City website, and was mailed to individuals who commented on the EIR. One comment letter was received, from David Whittum (Attachment B). Staff has prepared a response to the issues raised in the letter (Attachment C) and believes the City has now met the requirements of the Superior Court. Preparation of the EIR Addendum requires that the City approve a new Resolution of Findings (Attachment E), certify the EIR (as augmented by the EIR Addendum), and adopt a revised Mitigation Monitoring and Reporting Program (Attachment D). The EIR Addendum concludes that although extensive mitigation measures are identified in the EIR, that it is not feasible to reduce all significant construction-generated noise impacts to a less than significant level. The conclusion is based on the fact that: 1) there are two residential neighborhoods in close proximity to the project; 2) the project will

entail pile driving, which by its nature can be disruptive to nearby residents despite the inclusion of feasible mitigation measures; 3) safety restrictions required by Caltrain will require approximately six nights of construction; and 4) the total duration of construction will be approximately 27 months. As a result, and recognizing the sensitivity of nearby residents, staff concludes that the construction noise impacts are unavoidable significant environmental impacts, requiring that the Council balance the economic, legal, social, technological and/or other benefits of the project against its unavoidable environmental risks when determining whether to approve the project. If the benefits of the project outweigh the unavoidable adverse environmental effect, the Council is required to make findings under CEQA and to adopt the Statement of Overriding Considerations, which findings are set forth in the attached Resolution.

BACKGROUND

The Mathilda Avenue Bridge Over-crossing project is intended to correct deficiencies with the existing bridge as well as improve access into downtown Sunnyvale. The current bridge does not meet bridge pier clearance standards nor does it meet current deceleration lane, shoulder width, or bridge railing design standards. Pedestrian facilities do not meet Americans with Disabilities Act standards as well.

The City secured funding for preliminary engineering through the federally funded Highway Bridge Rehabilitation and Reconstruction (HBRR) Program, and a funding commitment is in place for construction funding. Additional grant funding was recently secured through the Santa Clara Valley Local Streets and County Roads Program to offset City matching funds with outside grant funds. The project involves upgrading and/or replacement of obsolete, sub-standard features of the bridge, including gore-point improvement, acceleration/deceleration lanes, shoulders, and bridge pier clearance. It is not a total bridge replacement, but there is significant reconstruction of on and off ramps, pedestrian facilities, and portions of the main deck. The project provides significant improvement of vehicle access to Downtown, and access for pedestrians, bicyclists and people with disabilities over and around the structure. The project also includes a significant landscape mitigation and improvement component.

A Draft Mitigated Negative Declaration was originally prepared and circulated in December 2004. As a result of considerable comments from one member of the public, Council directed staff to amend the design/environmental contract in July, 2005 to provide for preparation of a full EIR.

An EIR was finalized in November, 2006 and certified by Council. The document was subsequently challenged. The challenge was heard by the

Santa Clara County Superior Court in June 2007. The Court subsequently ruled that the EIR was compliant with the California Environmental Quality Act (CEQA) except for the subject of construction noise. Specifically, the Court found that the City provided "no evidence that the six adopted mitigation measures will reduce the identified significant construction noise impact to levels below significance." On August 2, 2007, the Court issued a Peremptory Writ of Mandate, which directed the City to reconsider the portion of the EIR pertaining to construction noise mitigation. No injunction was placed upon the project, and design work has continued while the environmental issues are being addressed. In the meantime, Council approved additional work by the design/environmental consultant to address the issues raised by the Court.

The EIR-Addendum is focused on response to the writ, which raised concern over construction noise impacts only. It contains further clarification of mitigations already identified in the previous documents, and also suggests several additional mitigation measures as well as analyzes three mitigation measures offered by complainant. The EIR Addendum is intended to augment the EIR with respect to construction noise only, which is comprised of the Draft Environmental Impact Report (DEIR) and the Final Environmental Impact Report containing responses to comments (FEIR), collectively referred to as the "EIR". If the City Council adopts the Resolution of Findings with Statement of Overriding considerations, certifies the EIR (with EIR Addendum) and adopts the Mitigation Monitoring and Reporting Program, and approves the Project, then the Office of the City Attorney will cause to be filed a report back to the Superior Court ("the Return") concerning these actions taken. The Return is required to be submitted to the Superior Court by March 31, 2008.

EXISTING POLICY

Land Use and Transportation Element C3, Attain a transportation system that is effective, safe, pleasant and convenient.

Land Use and Transportation Element C3.4, Maintain roadways and traffic control devices in good operating condition.

Land Use and Transportation Element C3.1.4, Study and implement physical and operational improvements to optimize roadway and intersection capacities.

Land Use and Transportation Element N1.5, Support a roadway system that protects internal residential areas from City-wide and regional traffic.

Land Use and Transportation Element C3.5, Support a variety of transportation modes.

DISCUSSION

While the EIR that was certified by the City Council in November 2006 concluded that the project-generated construction noise could constitute a significant impact under CEQA, the Court determined that the EIR's conclusion of "less than significant with mitigation" was not supported by evidence in the record. Therefore, the EIR Addendum was prepared for the purpose of more thoroughly describing and analyzing the effectiveness of a wide range of potential measures that might reduce construction noise impacts to a less-than-significant level. To accomplish this goal, the EIR Addendum provides more complete information regarding the planned phases of construction including time of day, duration, and types of activities. The EIR Addendum also provides a more in-depth analysis of noise that will occur during each phase of construction, using the latest information developed since the design has progressed.

The EIR Addendum includes and discusses in detail all feasible mitigation measures for reducing, minimizing, or avoiding construction noise. Measures to be incorporated into the Project include:

- Limitation on hours of pile driving
- Shrouding of pile drivers with acoustical blankets or barriers
- Utilization of two pile drivers to reduce the number of days of pile driving
- Pre-drilling pile foundation holes
- Limitations on hours of construction activities
- Noise suppression devices, mufflers on equipment
- Staging of equipment away from noise-sensitive land uses
- Temporary noise walls/barriers/enclosures around equipment
- Designation of a Noise Disturbance Coordinator to respond to any local complaints about noise. Authorizing the Coordinator to require reasonable measures to correct problems and to accommodate special circumstances or needs of the complainant (including temporary relocation)
- Notification to residents of planned construction activities, including conspicuous posting of contact information for the Noise Disturbance Coordinator
- Minimizing the presence of construction-related vehicles on residential streets, such as Angel Avenue and Charles Street

In addition to the above measures, the EIR Addendum describes and analyzes two mitigation measures that were suggested in the comments received on the draft EIR but that were not included due to being found infeasible. These measures are: 1) the construction of a 6-foot wall on top of a 15-foot berm adjacent to the residence at 360 Angel Avenue; and, 2) the relocation of families affected by construction noise for the 2-year construction period. For the

reasons described in the EIR Addendum, these two measures were determined to be infeasible and unnecessary and, therefore, are not included as part of the project. The acoustic expert analyzed the wall/berm concept, finding that it would not be effective in reducing noise, and was therefore not feasible. The concept of relocating people was found to be a disruption impact in itself and therefore also not feasible. The comments also included a third possible mitigation measure which is included in the list of mitigations, namely that all equipment shall be equipped with either audible self-adjusting backup alarms or manual adjustable alarms.

Staff believes that a significant number of reasonably effective construction noise attenuation measures have been analyzed and included in the project. However, there are no adopted thresholds for construction noise, which is considered a temporary occurrence, and therefore frequently considered as a less than significant impact. Also, noise disturbance is somewhat subjective and subject to individual perceptions, and is particularly related to distance from source of the noise. This project does require activities that will produce noise, namely pile driving, and some night work to work around railroad operations. The location of the project, very close to two residential neighborhoods, is an unavoidable circumstance. Therefore, even with the above measures in place, staff concludes that the City cannot assure that sensitive noise receptors in the area of the construction will not be impacted by the project. Therefore, staff is recommending that a Statement of Overriding Considerations which is contained in the Resolution (Attachment E) be adopted by the Council recognizing that the project will have significant unavoidable impacts due to construction noise.

FISCAL IMPACT

There is no fiscal impact associated with consideration of this EIR Addendum.

ALTERNATIVES

1. Adopt a Resolution of Findings including Statement of Overriding Considerations (Attachment E), certify the Environmental Impact Report as augmented by EIR Addendum, and adopt a revised Mitigation Monitoring and Reporting Program, (Attachment D).

2. Do not adopt the Resolution of Findings including Statement of Overriding Considerations (Attachment E), or certify the Environmental Impact Report as augmented by EIR Addendum, or adopt a new Mitigation Monitoring and Reporting Program, (Attachment D) and provide staff with direction.

3. Approve the Project and direct staff to proceed with the Mathilda Overhead Bridge Rehabilitation Project design and construction.

RECOMMENDATION

It is recommended that Council approve Alternatives 1 and 3:

1. Adopt a Resolution of Findings including Statement of Overriding Considerations (Attachment E), certify the Environmental Impact Report as augmented by EIR Addendum, and adopt a revised Mitigation Monitoring and Reporting Program, (Attachment D).
3. Approve the project, and direct staff to proceed with the Mathilda Overhead Bridge Rehabilitation Project design and construction

The EIR as augmented by the EIR Addendum provides additional information on project construction noise and mitigation of construction noise. The document concludes that extensive measures are incorporated, but the nature and location of the project will cause unavoidable significant environmental impacts from construction noise. A Statement of Overriding Considerations recognizes that significant impacts will occur, but the need for the project outweighs the anticipated impacts of the project.

Reviewed by:

Marvin Rose, Director, Public Works
Prepared by Jack Witthaus, Transportation and Traffic Manager

Approved by:

Amy Chan
City Manager

Attachments

A. Mathilda Avenue Bridge Rehabilitation Project EIR Addendum
B. Comments to EIR Addendum
C. Responses to Comments to EIR Addendum
D. Mitigation Monitoring and Reporting Program
E. Resolution of Findings with Statement of Overriding Considerations

The DEIR and FEIR are available for review in the Department of Public Works, City of Sunnyvale, and are not attached hereto because of their size.

ATTACHMENT A

ADDENDUM

to the

ENVIRONMENTAL IMPACT REPORT

for the

MATHILDA AVENUE BRIDGE REHABILITATION PROJECT SUNNYVALE, CALIFORNIA

State Clearinghouse Number 2006012030

CITY OF SUNNYVALE

DECEMBER 18, 2007

TABLE OF CONTENTS

Figures

Tables

Preface

On November 28, 2006, the Sunnyvale City Council certified the Environmental Impact Report (EIR) for the Mathilda Avenue Bridge Rehabilitation Project, adopted CEQA Findings, and approved the project.[1] On December 29, 2006, a Sunnyvale resident filed a lawsuit in Superior Court, in which it was alleged that the EIR was inadequate on a variety of grounds. On June 19, 2007, the Court ruled that the EIR was deficient in one area. Specifically, the Court found that the City provided "no evidence that the six adopted mitigation measures will reduce the identified significant construction noise impact to levels below significance." On August 2, 2007, the Court issued a Peremptory Writ of Mandate, which directed the City to reconsider the portion of the EIR pertaining to construction noise mitigation.

In response to the Court's ruling, this Addendum provides additional information regarding the methodology and assumptions that were used in the EIR for determining the significance of construction noise impacts, as well as additional mitigation measures to serve as the City's basis for concluding that the adopted mitigation measures would reduce the impact to a less-than-significant level. In determining whether mitigation measures effectively lessen and avoid significant impacts from construction noise, the City Council considers mitigation measures that avoid, minimize, rectify, reduce or compensate for the environmental impacts. For temporary construction noise impacts, the 12 mitigation measures discussed in this Addendum should be reviewed for their effectiveness to determine if the measures are feasible means of reducing environmental effects and must be assessed in accordance with the 'rule of reason'.

Per § 15370 of the CEQA Guidelines, "mitigation" includes:

(a) Avoiding the impact altogether by not taking a certain action or parts of an action.
(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
(c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

[1] Resolution 247-06.

(e) Compensating for the impact by replacing or providing substitute resources or environments.

This Addendum provides additional analysis of the noise impacts of the Project during each phase of construction, including pile driving activities over the approximately 36 weekdays they will occur, and nighttime construction activities on approximately six nights (because of limitations imposed by Caltrain). Six new mitigation measures are discussed and analyzed below, which when combined with the previously identified six mitigation measures, will avoid, minimize, rectify, reduce or eliminate impacts and/or compensate for most of the significant construction noise impacts on sensitive receptors in surrounding residential communities. The new mitigation measures, as well as enhancements to the previously identified measures, include such things as 1) the establishment of a buffer between stationary construction equipment and residences; 2) providing notification to neighbors by placement of notices on front doors ("door hangers") within 400 feet of the proposed construction activity; 3) the use of hydraulic hammers for driving piles adjacent to the tracks, a methodology acceptable to Caltrain thereby eliminating all nighttime pile driving; 4) requiring pile drivers to be shrouded with acoustical blankets; 5) utilizing two pile drivers to diminish periods of pile driving; 6) pre-drill foundations for pile holes; 7) designating a "Noise Disturbance Coordinator" to respond to local complaints with authority to address special circumstances including relocating persons with medical condition or home-bound individuals; 8) providing accessibility to the "coordinator" 24 hours per day and post phone number at the construction site and on every door hanger or other notice of upcoming construction activities; 9) prohibiting construction equipment access to residential streets to the extent any other route is available, and 10) prohibiting construction parking (equipment or worker vehicles) on residential streets.

Despite the inclusion of extensive mitigation measures in the project, Section 3 of this Addendum concludes that it is not feasible to reduce *all* significant construction-generated noise impacts to a less-than-significant level. This conclusion is based on the following facts: 1) there are two residential neighborhoods in close proximity to the project; 2) the project will entail pile driving, which by its nature can be disruptive to nearby residents despite the inclusion of feasible mitigation measures; 3) safety restrictions required by Caltrain will require approximately six nights of construction; and 4) the total duration of construction will be approximately 27 months.

Per § 15164 of the CEQA Guidelines, an Addendum to an EIR is prepared when changes to an EIR are necessary, but the changes do not lead to any of the following:

(A) The project will have one or more significant effects not discussed in the EIR;

(B) Significant effects previously examined will be substantially more severe than shown in the EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

An Addendum is appropriate in this case because the information contained herein consists of changes of a minor, technical nature, none of which leads to any of the above-listed situations. Per § 15164(c) of the CEQA Guidelines, an Addendum need not be circulated for public review. Nonetheless, recognizing the importance of the construction noise issue to the community, and recognizing the importance of public review and input in the CEQA process, the City will circulate this Addendum for 45 days. The City will also respond to comments it receives on this Addendum.

The Addendum shall be included as part of the Final EIR. The Sunnyvale City Council will consider the information in this Addendum prior to any decision to re-certify that portion of the Mathilda Avenue Bridge Rehabilitation Project EIR. The findings of the City Council and a Statement of Overriding Considerations will be contained in a Resolution concerning construction noise and mitigation measures pursuant to CEQA Guidelines § 15091 and 15093.

Short-Term Construction Noise

Introductory Note: Sections 2.6.3 and 2.6.4 of the EIR address construction noise impacts and mitigation, respectively. To facilitate the reader's understanding of this issue, the original text from the EIR is reproduced in its entirety below. Text additions are underlined. Text deletions show the original text with a ~~strikeout~~ running through the part of the text to be deleted.

1.0 IMPACTS

1.1 Methodology

The environmental checklist form (Appendix G) in the CEQA Guidelines considers that a "substantial temporary or periodic increase in ambient noise levels in the project vicinity" may be a significant impact.[2] Neither CEQA nor the City's *General Plan* define what temporary noise level would be considered substantial. Unlike long-term noise impacts where thresholds of significance are defined in the City's *General Plan*, the temporary and intermittent characteristics of construction noise make the establishment of a numerical citywide threshold of significance for construction noise speculative. This does not mean that construction noise impacts are not a concern to the City. In fact, § 16.08.110 of the City's Municipal Code recognizes that construction noise can constitute an annoyance and nuisance to nearby residents and therefore the Code restricts construction in residential areas to certain times of the day. In addition, most Initial Studies and EIRs prepared by the City include measures to mitigate construction noise.

In its role as CEQA Lead Agency, the City takes the following factors into consideration to determine whether short-term construction noise is significant:

- types of equipment and the associated noise levels at specified distances;
- characteristic of the noise (e.g., sporadic, steady, high pitch, low rumble);
- category of adjacent land uses (e.g., residential, school, industrial, commercial) and the typical activities associated with each;
- duration of the temporary noise at specific receptors;
- times of the day and days of the week when the noise will occur; and
- context (i.e., the existing noise environment).

Using the above-listed factors, the City applies the following principles in its evaluation of construction noise impacts:

[2]This is also the threshold of significance for construction noise listed on page 29 of the Draft EIR.

- Since construction noise is temporary, greater increases in noise levels are typically considered acceptable since the duration of the disturbance is usually short-term. In contrast, since long-term noise is essentially permanent, a smaller increase in noise levels is considered significant.

- Residential land uses are more "sensitive" to construction noise because some of the associated activities (e.g., sleeping) require a quieter noise environment than do activities associated with commercial or industrial uses.

- Noise that occurs at night is typically more annoying than noise that occurs during the daytime, especially since the nighttime is when the potential for sleep interference is greatest. This is why the day-night level (Ldn) and community noise equivalent level (CNEL) descriptors described in the Draft EIR assign penalties to noise that occurs during nighttime hours.[3] This is also why § 16.08.110 of the *Sunnyvale Municipal Code* restricts most construction to the hours of 7 AM to 6 PM, Mondays through Fridays, and 8 AM to 5 PM on Saturdays.[4] What this means in practical terms is that permissible noise levels during daytime hours are substantially higher than those normally allowed during nighttime hours.

- When ambient noise levels are elevated, the effect of construction noise tends to be less pronounced than when background levels are low. This is, in part, because new noise can be partially or fully masked by existing sources of noise, depending upon the loudness of each.

In contrast to the evaluation of long-term noise impacts, which uses time-averaged descriptors such as the Ldn, the assessment of construction noise impacts, below, uses "single event" noise levels, which are the actual noise levels produced by a piece of equipment at a certain distance from that equipment. The reason for using single event levels is that they correlate well with the potential to interfere with common activities such as conversations. For example, speech is commonly conducted at levels of 60 to 65 decibels at the listener's ear and, therefore, extraneous noise that approaches or exceeds such levels is likely to interfere with the conversation.

1.2 Sources of Construction Noise and Associated Noise Levels

The construction of the project will involve a wide variety of construction equipment for such tasks as earth hauling, excavating, contouring, grading and compacting of surfaces. Columns will be cast, surfaces will be paved, and steel members will be joined together. Most of the construction activities will involve the use of noise-generating diesel-powered heavy equipment such as dump trucks and bulldozers, concrete pumps, air compressors, cranes and generators. Most diesel-powered heavy construction equipment produces noise levels of 75 to 90 decibels when it is at a distance of 50 feet.

---

[3] Most governmental agencies in California, including the City of Sunnyvale, utilize the Ldn in promulgating noise/land use compatibility guidelines and standards.

[4] §16.08.030 of the Municipal Code exempts projects located within the public right-of-way, as well as any building or structure owned by the City, from this requirement.

Noise levels decrease by 6 decibels for every doubling of the distance of separation from such localized sources. For example, barring obstructions, the noise levels from such a piece of equipment at a distance of 50 feet would be expected to be about 18 decibels higher than at a distance of 400 feet. Therefore, noise levels of 75 to 90 decibels at 50 feet would be 57 to 72 decibels at 400 feet. ~~would be expected to be about 18 decibels less at a distance of 400 feet than at a distance of 50 feet, that is 57 to 72 decibels instead of 75 to 90 decibels.~~

As shown in Table 1, if the windows of those homes that would be most exposed to construction activities were to be open when the construction activities would be undertaken near them, then noise levels inside those homes would then be approximately 10 decibels less than the levels outdoors; at a distance of separation of 50 feet, the interior noise levels from the construction activities would be in the range of 65 to 80 decibels (or slightly higher whenever it would happen that more than one such piece of heavy equipment were to be used at the same time near the same place). With windows closed, the indoor noise levels at the same homes would be about 20 decibels less than the outdoor noise levels, or about 55 to 70 decibels. Such noise levels are highly intrusive in effect and can be expected to cause a considerable amount of annoyance. Speech is commonly conducted at levels of 60 to 65 decibels at the listener's ear. Thus, the estimated construction noise levels would at times cause a substantial amount of speech interference inside and outside of many of the residences that are thus situated. This situation applies to residences located in the southwest and northeast quadrants of the project.

TABLE 1

ILLUSTRATION OF THE EFFECT OF DOUBLING THE DISTANCE BETWEEN NOISE SOURCE AND RECEIVER ON NOISE LEVELS

Distance	Range in Exterior Noise Levels	Range in Interior Noise Levels	
		Windows Open	Windows Closed
50 feet	75 - 90 dBA	65 - 80 dBA	55 - 70 dBA
100 feet	69 - 84 dBA	59 - 74 dBA	49 - 64 dBA
200 feet	63 - 78 dBA	53 - 68 dBA	43 - 58 dBA
400 feet	57 - 72 dBA	47 - 62 dBA	37 - 52 dBA

The reduction of 6 dBA per every doubling of the distance assumes there is a clear path between the source and receiver. If buildings and/or terrain are in the path, then noise levels would be much lower since the sound waves are blocked. The reduction for interior noise assumes standard residential construction and standard single-pane windows. For newer buildings and double-pane windows the reduction would be greater.

Structural work, which typically lasts longer and involves more equipment than non-structural work, will be required for the widening of the Mathilda Avenue bridge, for the demolition of the existing off-ramp, the construction of the new loop off-ramp, and the reconstruction of the pedestrian crossing.

Pile driving will ~~likely~~ be used during construction of the project. Pile drivers produce an impact noise each time the hammer strikes the pile (or the temporary cap on the top of the pile). The peak decibel levels during the sound impulses from pile drivers vary substantially according to the circumstances but often fall in the range of 95 to 105 decibels at a distance of 50 feet. Again, the diminution with increasing distance is about 6 decibels for every doubling of the distance of separation. Therefore, at 100 feet, the range would be 89 to 99 decibels, and at 400 feet the range would be 77 to 87 decibels.

1.3 Duration and Time-of-Day of Construction Noise

It is projected that the total time required to construct the project will be approximately 27 months. This accounts for all activities including mobilization, demolition of the existing off-ramp from southbound Mathilda Avenue to Evelyn Avenue, construction of the new loop ramp, construction of the Charles Avenue cul-de-sac, removal and reconstruction of the pedestrian ramps, bridge widening, paving, lane striping, landscaping, and demobilization.

Construction noise impacts will vary greatly by the type of activity and by location. As described below, construction noise will not be constant and will not continually impact the same residences over the 27-month period. For example, activities such as pile driving and structure demolition will produce the highest noise levels (but for a limited duration), while activities such as mobilization, landscaping, lane striping, and demobilization will generate lower noise levels, which in some cases may not be audible over existing traffic noise. While some nighttime construction will occur during the course of the Project's construction, no nighttime pile driving will occur during any stage.

Stage 1 - 8-1/2 months

Stage 1 construction will consist of the widening of northbound Mathilda Avenue between Washington Avenue and California Street. Traffic lanes on northbound lanes will be shifted towards the median to make room for placement of k-rail (i.e., temporary traffic barriers). Relocation of sanitary sewer and communication lines on San Andreas Court will be performed. At the same time, demolition for bridge sidewalk/barrier, as well as the north and south pedestrian ramps will take place. Once the demolition work is completed, construction of bridge widening and retaining walls will begin. Construction of the new south pedestrian ramp will begin after construction of the bridge widening. After completion of the work for the Mathilda Avenue bridge widening, work will commence on the south pedestrian ramp, followed by the north pedestrian ramp.

Pile driving will be required for the widening of the Mathilda Avenue bridge. A total of 8 days of pile driving was originally expected during this stage. However, the City will engage the use of two pile drivers, which will reduce the duration to approximately 4 days (see Table 2). No nighttime work will occur during this stage.

TABLE 2

SUMMARY OF PILE DRIVING AND NIGHTTIME CONSTRUCTION

		Nighttime Construction		Pile Driving - Unmitigated		Pile Driving - Mitigated	
Stage	Duration [# of months]	Unmitigated [# of days]	Mitigated [# of days]	Weekdays (8 am - 6 pm) [# of days]	Nights and Weekends [# of days]	Weekdays (8 am - 6 pm) [# of days]	Nights and Weekends [# of days]
1	8.5	0	0	8	0	4	0
2	3.0	2	2	27	0	14	0
3a	7.0	8	2	6	6	18	0
3b	5.5	2	2	8	0	0	0
4	3.0	0	0	0	0	0	0
Totals:	**27.0**	**12**	**6**	**49**	**6**	**36**	**0**

For pile driving, the unmitigated condition assumes approximately six nights of pile driving for the bridge supports adjacent to the Caltrain tracks and that only one pile driver will be used. However, as described in the text, the City will avoid nighttime pile driving by using an alternate method and will reduce the duration of pile driving by using two pile drivers. The number of days using two pile drivers is the "mitigated" scenario shown in this table.

Note: Durations are estimated based on typical construction methods.

Stage 2 - 3 months

Stage 2 will construct the median widening on Mathilda Avenue, bridge railing replacement on the west side of the northbound on-ramp, and footings for the southbound bridge widening (except for adjacent to the Caltrain tracks). Traffic lanes on Mathilda Avenue will be shifted away from the median for k-rail placement. K-rail will be placed along right edge of the northbound on-ramp. Falsework[5] for bridge railing replacement, median closure pour, and southbound off-ramp demolition and bridge widening will be erected. Once falsework is in place, construction of median and bridge railing replacement will take place.

[5] *Falsework* refers to temporary structures used in construction to support spanning or arched structures in order to hold the component in place until its construction is sufficiently advanced to support itself.

A total of 27 days of pile driving was originally expected during this stage. However, the City will require the use of two pile drivers, which will reduce the duration to approximately 14 days (see Table 2). Two nights of nighttime work will occur during this phase in order to erect the portion of the falsework over the Caltrain tracks when Caltrain is not in service, as required by the California Public Utilities Commission (CPUC) and the Peninsula Corridor Joint Powers Board (PCJPB), which operates Caltrain. See the discussion in Section 1.4, below, for more information about nighttime work. No pile driving will occur during nighttime hours.

Stage 3A - 7 months

Stage 3A will remove the existing southbound off-ramp, replace the bridge railing on the east side of the northbound on-ramp, construct retaining walls for the southbound widening, and construct the bridge over the railroad tracks. Southbound traffic lanes will be shifted towards the newly finished median to make room for the demolition and construction work along the westerly edge of Mathilda Avenue. The bridge support adjacent to the tracks will be constructed in this stage. Concurrently, construction of the Charles Street cul-de-sac and parking lot removal will take place.

Due to safety restrictions mandated by the CPUC and PCJPB, conventional piles for the bridge supports adjacent to the tracks would be required to be driven during the nighttime hours when Caltrain is not operating.[6] In this case, this would necessitate approximately six nights of pile driving. However, recognizing the substantial impacts to nearby residents associated with nighttime pile driving, the City worked with Caltrain to develop a mutually-acceptable alternate method whereby the piles will not be driven with a pile driver. Instead, the piles for the supports adjacent to the tracks will be driven during daytime hours using a hydraulic hammer with a limiting height of 21 feet.[7] Due to height limitation, the steel piles will be 10 feet long and they will need to be welded together, which results in a slower process than standard pile driving. Instead of averaging three piles per day with a pile driver, the hydraulic hammer averages only one pile per day. While this will increase the number of days for pile driving during this stage from 6 to 18, there will still be a net benefit because pile driving during the sensitive nighttime hours will be completely avoided. Two nights of nighttime work will occur during this phase in order to erect the rebar and formwork for the columns adjacent to the Caltrain tracks. See the discussion in Section 1.4, below, for more information about nighttime work.

Stage 3B - 5-1/2 months

Stage 3B will construct the superstructures of the southbound bridge widening and the southbound loop ramp, as well as the retaining wall for the loop off-ramp. Other work in this stage will include sidewalk

[6] Alternatively, daytime work windows could be created whereby Caltrain is shut down for several hours at a time. This would be extremely disruptive to Caltrain operations and the thousands of commuters that use Caltrain daily. Caltrain has indicated that it would not agree to this.

[7] The CPUC and Caltrain do not allow a standard pile driver to operate adjacent to active tracks because its substantial height presents a hazard to passing trains should it topple and/or a long pile fall. The substantially shorter height of a hydraulic hammer, along with shorter segments of steel piles, avoids this potential hazard.

construction on both sides of Evelyn Avenue. Falsework over the railroad tracks will be removed at the end of this stage during the night as required by the PCJPB.

A total of 8 days of pile driving was originally expected during this stage. However, the City will require the pile driving normally scheduled for this stage to be undertaken concurrently with the pile driving in Stage 3A, which will have the effect of completely eliminating pile driving in Stage 3B (see Table 2). Two nights of nighttime work will occur during this phase in order to remove the portion of the falsework over the Caltrain tracks when Caltrain is not in service as required by the PCJPB. See the discussion in Section 1.4, below, for more information about nighttime work.

Stage 4 - 3 months

Stage 4 will construct the median on Evelyn Avenue and Mathilda Avenue as well as the parking lot. Landscape and irrigation work will be completed in this stage. No pile driving or nighttime work will occur during this stage.

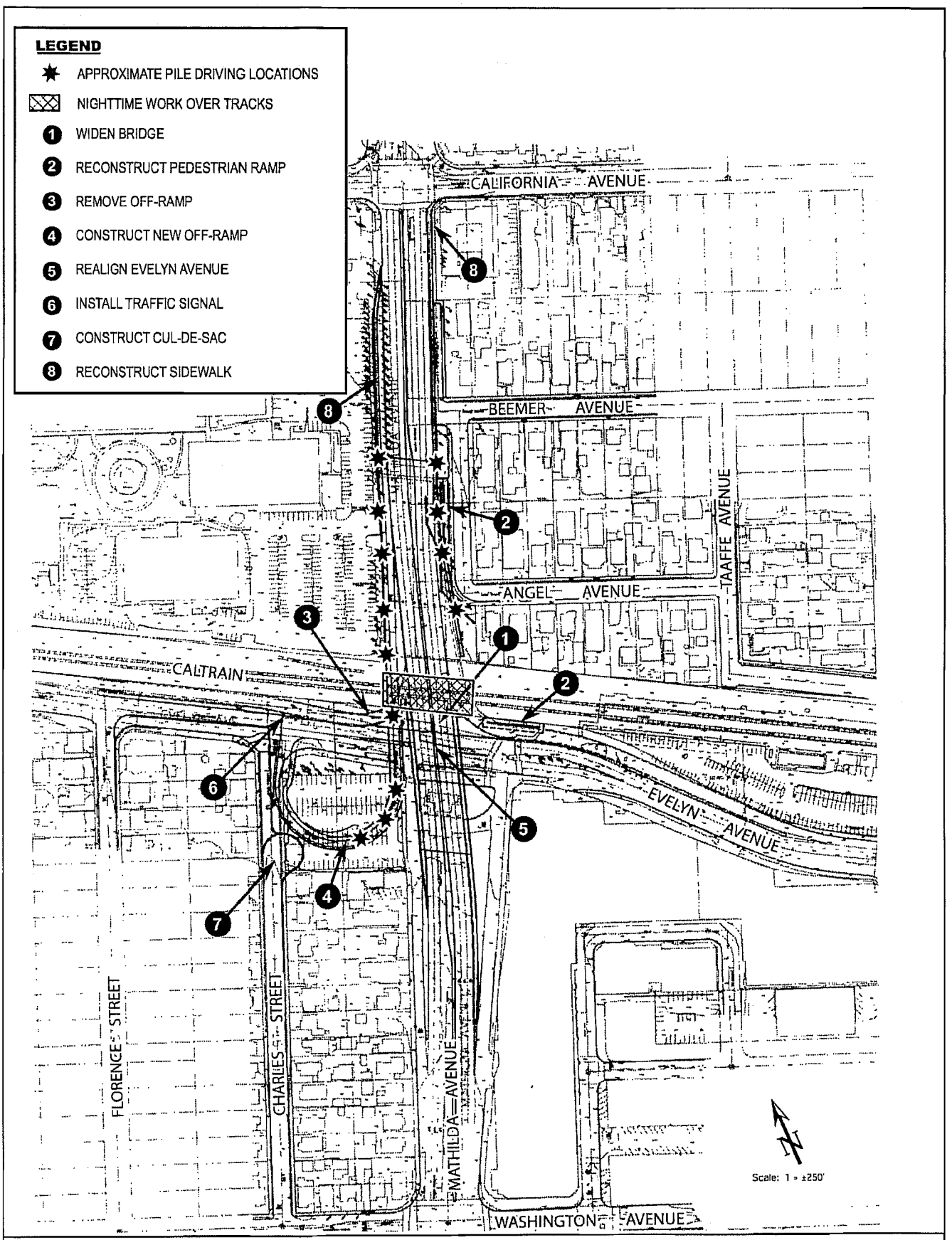
1.4 Nighttime Construction

Because noise that occurs at night in residential areas is typically more annoying than noise that occurs during the daytime, especially since the nighttime is when the potential for sleep interference is greatest, efforts have been made to minimize nighttime construction. However, as noted above, there will be an estimated six nights of nighttime construction that will be necessary over the course of the 27-month construction period. This work is required by the safety regulations of the CPUC and Caltrain, such regulations which prohibit construction occurring directly over the railroad tracks during Caltrain's operating hours.

As shown in Table 2, the estimated six nights of work are projected to occur in 2-night increments in Stages 2, 3A, and 3B. The work will involve the placement and removal of falsework over the Caltrain tracks, as well as the placement of rebar and formwork for the columns adjacent to the tracks (see Figure 1). Equipment needed for this work will include lights, trucks, hammers, cranes, compressors, and generators. As noted above, such equipment typically generates 75-90 decibels of noise at a distance of 50 feet.

For the neighborhood in the northeast quadrant, the closest residence is approximately 100 feet from the area where the nighttime work will occur. At that residence, interior noise levels would be in the range of 49-64 dBA with the windows closed, assuming single-pane windows (see Table 1). Depending upon the specific equipment used, the actual type of building materials and windows at the home, the location of bedrooms in the home, etc., there is a *potential* for sleep disturbance at this location. Noise levels, and therefore the potential for sleep disturbance, at other residences in this neighborhood would be less because of the greater distances from the construction, shielding afforded by other residences.

For the Charles Street neighborhood, the closest residence is approximately 200 feet from the area where the nighttime work will occur. At that residence, interior noise levels would be in the range of 43-58 dBA with the windows closed, assuming single-pane windows (see Table 1). Depending upon the



PILE DRIVING & NIGHTTIME WORK LOCATIONS FIGURE 1

specific equipment used, the actual type of building materials and windows at the home, the location of bedrooms in the home, etc., there is a *potential* for sleep disturbance at this location. Noise levels, and therefore the potential for sleep disturbance, at other residences in this neighborhood would be less because of the greater distances from the construction, shielding afforded by other residences, etc.

The above-described potential for sleep disturbance will be further minimized by the mitigation measures described below, which include positioning stationary equipment away from homes and shielding such equipment with enclosures.

2.0 MITIGATION

2.1 Mitigation Measures Included in the Project

The project includes the following measures that will mitigate short-term noise impacts to a less-than-significant level. The mitigation addresses multiple aspects of construction noise, namely 1) frequency and duration (i.e., how often and how long); 2) magnitude (i.e., how loud); and 3) time of day. The measures are summarized in Table 3.

NOISE-1 Pile driving will be limited to the hours of 8 AM to 6 PM, Monday through Friday, with no pile driving on weekends or holidays. This measure avoids the above-described potential for sleep interference because it prohibits nighttime pile driving. In addition, by restricting pile driving to Monday through Friday when the majority of residents are at work or school, the number of people affected by this activity is reduced.

NOISE-2 ~~Where practical~~ With one limited exception, construction operations will be restricted to daytime hours of 7 AM to 6 PM, Mondays through Fridays, and 8 AM to 5 PM, Saturdays, with no construction activities on Sundays or holidays, to avoid the more sensitive evening and early morning hours (Sunnyvale Municipal Code Section 16.08.110). The exception, which is mandated by Caltrain for safety purposes, consists of the placement/removal of falsework directly over the Caltrain tracks and the placement of the rebar/formwork for the column adjacent to the Caltrain tracks. This is estimated to take a total of 6 nights. ~~"Practical", as used here, means daytime construction can occur without creating major disruption and nighttime construction could avoid/minimize such disruption [e.g., the closure of lane(s) of traffic on primary highways with substantial volumes of daytime traffic]. This measure applies only at locations where there are adjacent sensitive receptors (e.g., residences).~~ While this measure doesn't eliminate all nighttime construction, it greatly minimizes the impact by restricting it to approximately 6 nights out of the 27-month construction period. Further, the 6 nights of construction will not occur over six consecutive nights, but will occur in 2-night increments over a 15-month period as summarized in Table 2.

TABLE 3

SUMMARY OF MITIGATION MEASURES FOR CONSTRUCTION NOISE

Type of Impact	Mitigation Measures
Nighttime Construction	• prohibit except for approximately 6 nights over 27-month period • shield/enclose stationary equipment • locate stationary equipment away from residences • use only properly muffled equipment • provide advance notification to neighbors • designate Noise Disturbance Coordinator
Pile Driving	• restrict to 8 a.m. - 6 p.m., Monday - Friday only • reduce duration from 49 to approximately 36 days by using two pile drivers • reduce impact blows by pre-drilling foundation holes • shield pile driver with acoustical blanket or barrier • provide advance notification to neighbors • designate Noise Disturbance Coordinator
Daytime Construction	• restrict to 7 a.m. - 6 p.m., M-F, and 8 a.m. - 5 p.m., Saturdays • prohibit on Sundays and holidays • shield/enclose stationary equipment • locate stationary equipment away from residences • use only properly muffled equipment • provide advance notification to neighbors • designate Noise Disturbance Coordinator • prohibit construction workers from parking in neighborhoods • restrict construction traffic and equipment on residential streets except where required to construct projects

Note: This table summarizes the mitigation measures. See text for details.

NOISE-3 Equipment will use available (i.e., standard) noise suppression devices and properly maintained mufflers. Construction noise can be reduced by using quiet or "new technology" equipment, particularly the quieting of exhaust noises by use of improved mufflers, and the use of such equipment is recommended. All internal combustion engines used at the project site will be equipped with the type of muffler recommended by the vehicle manufacturer. In addition, all equipment will be maintained in good mechanical condition so as to minimize noise created by faulty or poorly maintained engine, drive-train, and other components. Properly working mufflers provide significant noise reduction (in the range of 20-25 decibels) over non-muffled engines. This measure reduces the construction noise impact by requiring the contractor to maintain and use machinery that is equipped with mufflers and other noise-reducing technology.

NOISE-4 Staging of construction equipment and unnecessary idling of equipment within 200 feet of noise-sensitive land uses will be avoided whenever feasible. "Feasible", as used here, means that the implementation of this measure would not have a notable effect on construction operations or schedule. This measure minimizes the potential for prolonged interference with normal residential activities because it establishes a buffer between equipment and residences, thereby reducing noise levels at the residence. As described above, noise levels decrease by six decibels for every doubling of the distance between a source and a receiver.[8] A distance of 200 feet, as compared to 50 feet, would reduce noise by 12 decibels.

NOISE -5 Temporary walls/barriers/enclosures will be erected around stationary construction equipment (e.g., compressors, generators, etc.) when such equipment will be operated at night or for an extensive period of time (i.e., more than 2-3 days) during daytime hours ~~and where there are adjacent residences~~. Noise barrier walls and enclosures will contain absorptive material in order to prevent significant impacts upon other land uses due to noise reflection. Along with the previous measure, this measures lowers noise levels at residences, which reduces the potential for prolonged interference with normal residential activities. Depending on the type of barrier and the number of openings, noise reduction will range from roughly 10 to 20 decibels (Source: Caltrans Technical Noise Supplement, 1998).

NOISE-6 Notification shall be given to residents within ~~300~~ 400 feet alerting them of planned construction activities, including the overall durations of the various construction stages and the schedule of pile driving activities. The notification shall include the placement of notices on front doors ("door hangars") of nearby residences. The notification shall also describe the noise abatement measures that have been taken, as well as note the infeasibility of other measures that were considered but rejected. Providing advance

[8] As stated on page 27 of the Draft EIR, decibels are logarithmic. As experienced by the human ear, a change of one decibel is imperceptible, a change of three decibels is just noticeable, and a change of ten decibels is perceived as a doubling/halving of the noise level.

information to residents, including contact information for the Noise Disturbance Coordinator, creates opportunities for the scheduling of activities, whereby interference due to construction noise can be minimized or avoided.

NOISE-7 Pile driver(s) will be shrouded with an acoustical blanket or barrier. Such shielding typically provides 5-10 decibels of noise attenuation. This measure lowers noise levels at residences, which reduces the potential for interference with normal residential activities during daytime pile driving.

NOISE-8 For the driving of piles, two pile drivers will be utilized. This will reduce the number of days for driving piles from 49 to approximately 36.

NOISE-9 Foundation pile holes shall be pre-drilled to minimize the number of impacts/blows required to seat the pile. Pre-drilling foundation holes is a standard construction noise control technique.

NOISE-10 A "Noise Disturbance Coordinator" will be designated for the purpose of responding to any local compliant about construction noise. The Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures warranted to correct the problem be implemented. The Coordinator would also be authorized to address and accommodate any special circumstances. An example of such circumstances would include someone with a medical condition or a home-bound individual who might be adversely affected by pile driving.

NOISE-11 The City will conspicuously post the phone number of the Noise Disturbance Coordinator at the construction site and shall include the phone number on all notices sent to neighbors regarding the construction schedule.

NOISE-12 [This measure is described in the "Responses to Comments" section of the Final EIR. For completeness, it is reproduced here.] Construction workers will not be permitted to park on neighborhood streets. Construction equipment and vehicles will utilize Angel Avenue only to the extent needed to construct the east side bridge widening and pedestrian overcrossing. Construction equipment and vehicles will utilize Charles Avenue only to the extent needed to construct the Charles Avenue cul-de-sac. This measure will reduce/avoid noise from vehicle movements and related disturbances.

2.2 Mitigation Measures Considered but Rejected

At the public hearing on the night the City Council approved the project (November 28, 2006), David Whittum, a resident residing at 306 Angel Avenue, requested mitigation in the form of a "six-foot masonry wall next to 360 Angel Avenue with a 15-foot berm". There is an open area between the Mathilda Avenue bridge and the residence at 360 Angel Avenue where a wall on top of a berm could

be constructed. The potential for such a barrier to reduce construction noise was evaluated by the acoustical consulting firm of Illingworth & Rodkin, Inc. The Illingworth & Rodkin report (attached as Appendix A) concluded the following:

> "Up to 10 to 12 dBA of noise reduction would be expected when and if construction activities occur at ground level directly behind the barrier, unless the noise reflects above or around the barrier. However, since the majority of the construction noise will emanate from locations not at ground level and not directly behind the proposed barrier, the barrier would not be an effective mitigation measure for overall construction noise. For example, the barrier would not block the line of sight for construction activities occurring on top of the overpass and therefore would provide no noise reduction from such construction. Further, the barrier would not block the line of sight to construction activities occurring north of Angel Avenue or south of the Caltrain line and therefore would provide no noise reduction from such construction. Based on the above facts, it is our professional opinion that the proposed barrier would not be a feasible mitigation as it would not provide a noticeable noise reduction throughout the construction period."

In his comments on the Draft EIR, David Whittum also suggested that the City consider relocating families affected by construction noise for "the two years of construction" (Comment H-112 on page 102 of the Final EIR). In view of the above-described mitigation measures that avoid, minimize, rectify, compensate for, or reduce construction noise impacts to a less-than-significant level, this measure, adopted in whole, is unnecessary. Relocation, which is itself highly disruptive, would only be warranted if a project were to entail extensive nighttime construction, nighttime pile driving, and the like, none of which will occur on this project. [Note: The Noise Disturbance Coordinator (see mitigation measure #10) will be authorized to address special circumstances, the solution to which could include temporary alternate accommodations.]

3.0 CONCLUSION

The project will result in significant short-term noise impacts. Despite the inclusion of extensive mitigation measures in the project, it is concluded that it is not feasible to reduce *all* significant construction-generated noise impacts to a less-than-significant level. This conclusion is based on the following facts: 1) there are two residential neighborhoods in close proximity to the project; 2) the project will entail pile driving, which by its nature can be disruptive to nearby residents despite the inclusion of feasible mitigation measures; 3) safety restrictions required by Caltrain will require approximately six nights of construction; and 4) the total duration of construction will be approximately 27 months.

Appendix A

Assessment of Temporary Noise Barrier Adjacent to 360 Angel Avenue

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
505 Petaluma Boulevard South
Petaluma, California 94952
Tel: 707-766-7700 *Fax: 707-766-7790*
www.illingworthrodkin.com *illro@illingworthrodkin.com*

December 17, 2007

John Hesler
David J. Powers & Associates, Inc.
1885 The Alameda, Suite 204
San Jose, CA 95126

VIA E-MAIL: jhesler@davidjpowers.com

SUBJECT: Mathilda Avenue Overpass, Sunnyvale, California – Noise Reduction Provided by a Temporary Noise Barrier

Dear John:

At your request, we have reviewed the figure and plan that you provided[1] to calculate the noise reduction expected from a noise barrier located near the westernmost property line of the residence at 360 Angel Avenue. A 21-foot barrier (6-foot masonry wall on top of a 15-foot earth berm) has been suggested to provide noise attenuation during Mathilda Avenue Overpass project construction activities. The 21-foot barrier would be located near the westernmost residential property line of 360 Angel Avenue. According to the Mathilda Avenue Overpass Plan and Profile No. 2, the overpass is at an elevation of about 120 feet above mean sea level and approximately 37 feet above the base elevation of the receiver at 360 Angel Avenue (83 feet above mean sea level).

Up to 10 to 12 dBA of noise reduction would be expected when and if construction activities occur at ground level directly behind the barrier, unless the noise reflects above or around the barrier. However, since the majority of the construction noise will emanate from locations not at ground level and not directly behind the proposed barrier, the barrier would not be an effective mitigation measure for overall construction noise. For example, the barrier would not block the line of sight for construction activities occurring on top of the overpass and therefore would provide no noise reduction from such construction. Further, the barrier would not block the line

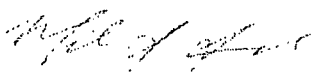
[1] Figure 1 of EIR Addendum: Pile Driving & Nighttime Work Locations, 12/07.
Mathilda Avenue Overpass Plan and Profile No. 2, June 24, 1963.

of sight to construction activities occurring north of Angel Avenue or south of the Caltrain line and therefore would provide no noise reduction from such construction.

Based on the above facts, it is our professional opinion that the proposed barrier would not be a feasible mitigation as it would not provide a noticeable noise reduction throughout the construction period.

Please feel free to contact us if we can be of additional service.

Sincerely,



Michael S. Thill
ILLINGWORTH & RODKIN, INC.

(07-248)

ATTACHMENT B

306 Angel Avenue
Sunnyvale, CA 94086
c:(650)906-7681
whittum@ieee.org

February 4, 2008

Jack Witthaus, Transportation & Traffic Manager
jwitthaus@ci.sunnyvale.ca.us, fax (408) 737-4943, tel: (408) 730-7415

cc:
David Kahn, City Attorney,
dkahn@ci.sunnyvale.ca.us, fax (408) 730-7468, tel: 408-730-7464

456 West Olive Ave, Sunnyvale, CA 94086
P.O. Box 3707 Sunnyvale, CA 94088-3707

by email and hand-delivery

Re: Addendum to the Environmental Impact Report (EIR), Mathilda Avenue Bridge Rehabilitation Project, http://sunnyvale.ca.gov/NR/rdonlyres/FD433BB6-7F67-4427-8347-222F4BBFF1F4/0/MathildaAveBridgeRehabProject.Pdf

Dear Mr. Witthaus,

Enclosed Public Comments on the above-referenced matter are hereby submitted by me as a member of the public, pursuant to the California Environmental Quality Act.

David Whittum

Environmental Setting

The Mathilda Overcrossing Project is proposed in an area situated next to an R2-zoned residential neighborhood consisting of detached single-family homes, duplexes and multi-units on Beemer Avenue, and the "L"-shaped Angel Avenue, the east-west leg of which parallels the railroad right-of-way under the control of the Peninsula Corridor Joint Powers Board ("Caltrain") and Sunnyvale Station, lying directly under the Moffett Field flight path. The homes nearest the project are within 100 feet of the structure. Multi-unit housing lies within 200 feet.

As of 1998, the City's Noise Element depicts noise contours in excess of plan guidelines throughout most of the neighborhood and observes that

> *"Current noise levels are acceptable for all but approximately 80 older homes near the tracks which experience 'conditionally acceptable' noise levels. Some of these homes are exposed to excessive outdoor noise (above 70dB Ldn) and probably excessive interior noise as well (above 45dB Ldn)."*

Since that time, the neighborhood has seen City approval of a multi-story office complex across the tracks, demolition of the train station, construction of a multi-story parking garage, and a new PA system. For the first time Sunnyvale Station pedestrian at-grade rail-crossings had gates installed in a City-partnered project, with crossing bells installed near homes. During the summer of 2003, the Caltrain Baby-Bullet upgrade saw all-night, all-weekend construction periods, including heavy use of the "backup-sound". Since that time commuter train frequency has increased from 56 per day to 96 per day, operating around the clock except for a gap between 1a.m. and 5a.m., during and around which freight trains operate. The neighborhood recently gained an ADA compliant access to Sunnyvale Station at W. Hendy Avenue, after filing of a complaint with the Federal Transit Administration Office of Civil Rights (DOT 2006-0186).

Noise sources in the neighborhood today include train horn, train bells, locomotive idling, locomotive passby noise, locomotive braking, head-end power unit, crossing bells, platform public-address system, military aircraft (heavy-lift, attack, helicopter), firetrucks from Station #1, at the base of Mathilda, and traffic on the Mathilda overcrossing, presently partially obscured by seventeen 40-foot pine trees.

The City has testified that noise in this neighborhood is 57dB(A). Specifically, as part of the IS/MND, City-sponsored noise measurements took place in April 2004. The consultant measured peak hour noise levels (L_{eq}) at one location in this neighborhood, a block from the east-west leg of Angel Avenue, *i.e.,* one block from the homes situated abutting the railroad right-of-way, in the shadow of the Mathilda overcrossing. This was a 15-minute measurement around 6:30AM April 30, 2004 showing 57dB(A).The same consultant went on to perform a calculation resulting in a report that noise levels in backyards on Angel Avenue would range from 59-63(A) in the year 2020.

The City has not provided nor acknowledged any other characterization of noise in this neighborhood, notwithstanding the description in the General Plan, and comments dated January 2005 in the record presenting measurements showing that commuter train noise peaks over 90dB(A) at a home adjoining the project site, and calculations based on these measurements consistent with an Ldn in the range of 70dB(A).

Project

The Project will rehabilitate the six-lane bridge over the course of two years of construction work. The bridge, which has not been claimed to be structurally deficient, meets the standards in force at the time it was built, and exceeds them thanks to seismic upgrades. According to the DEIR

> *The construction of the project will involve a wide variety of construction equipment for such tasks as earth hauling, excavating, contouring, grading and compacting of surfaces. Columns will be cast, surfaces will be paved, and steel members will be joined together. Most of the construction activities will involve the use of noise-generating diesel-powered heavy equipment such as dump trucks and bulldozers, concrete pumps, air compressors, cranes and generators. Most diesel-powered heavy construction equipment produces noise levels of 75 to 90 decibels when it is at a distance of 50 feet.*
>
> ...
>
> *Structural work, which typically lasts longer and involves more equipment than non-structural work, will be required for the widening of the Mathilda Avenue bridge, for the demolition of the existing off-ramp, the construction of the new loop off-ramp, and the reconstruction of the pedestrian crossings.*
>
> ...
>
> *Pile driving will likely be used during construction of the project. Pile drivers produce an impact noise each time the hammer strikes the pile (or the temporary cap on the top of the pile). The peak decibel levels during the sound impulses from pile drivers vary substantially according to the circumstances but often fall in the range of 95 to 105 decibels at a distance of 50 feet.*

The Project will result in construction-related noise impacts. Construction noise impacts will reach the level of 55-70dB(A) indoors with windows shut, and this is significant given the indoor level of 45dB(A) adopted in the General Plan.

This project comprises 27-months of construction, including Saturdays, for a total of approximately 700 days of construction activity. The Addendum admits that during this construction period noise levels at homes nearby will reach 65-80 dB indoors if windows are left open, and 55 to 70 dB indoors if windows are closed. The Addendum admits that the proposed project will include 36 days of pile-driving within 100-feet of assorted residences along the project alignment. Noise-levels during pile-driving will range from "89 to 99 decibels" at 100 feet, and "77 to 87" decibels at 400 feet. The Addendum claims that the project will limit night-time construction to 6 nights of construction work. The Addendum admits no limit to construction traffic other than that necessary traffic will be permitted. This is to say, there could well be 700 days of construction traffic on a virtual cul-de-sac that the General Plan admits is now relatively quiet, in between trains, and on which the EIR represents noise levels to be a quiet 57dB(A).

Fails to Assess Condition of Homes

The report does not assess the condition of the dozens of homes affected by this project, whether they include HVAC, make-up air and double-pane windows. Absent make-up air, windows cannot be assumed to be shut *all day* for 6 days out of 7 for a 27

month period. More typically in this neighborhood, windows are left open during the day for fresh air, as they must be shut at night in order to sleep through the noise of the trains. The Addendum assumes windows will be shut all day and overlooks that they also need to be shut all night on account of the trains. Thus the Addendum does not present a workable plan by which residents affected could live through this project. Residents will need oxygen *and* sleep, and this project asks them to choose one or the other.

Fails to Assess Adverse Effects on Human Beings

Moreover, the Addendum assumes that folks sleep at night, neglecting the situation of shift-workers. This Addendum makes clear that swing and owl shift workers will be severely impacted, potentially unable to sleep, and yet provides no assessment of how many such workers will be affected and no assessment of the feasibility of relocation. For example, there are four Section 8 units within 100 feet of the project. The City fails to analyze the cost of subsidizing four units elsewhere for the duration of the project.

Absent relocation, one needs to believe that folks who need to sleep during the day, are going to sleep indoors with 70dB. This is at odds with the standard adopted in the General Plan of 45dB(A). Relocation should be assessed as a feasible mitigation.

Confuses Reducing Noise from Construction Equipment with Reducing Noise Impact During the Construction Period The Addendum employs the logic that *construction noise* is a significant impact, that it cannot feasibly be mitigated, and thus a statement of over-riding considerations may be considered. This logic is flawed. Where construction noise itself cannot be directly mitigated, then feasible mitigations of other sources of noise present during the construction period must be considered first, if a statement of overriding considerations is to be considered. That is, mitigation refers to noise as measured by the adopted metrics, e.g. Ldn. This metric does not distinguish the particular sources of noise, it is a single quantity. Thus mitigation of train noise, for example, must be considered, if feasible.

Fails to Correctly Analyze Earthen Berm A statement of over-riding considerations requires that feasible mitigations have been analyzed. The City has not correctly analyzed the mitigation proposed repeatedly by the neighborhood, [Comment H-6] *sound-walls, berms buttressed by retaining walls, soft groundcover under the overpass to reduce reverberation and lower noise levels on Angel Avenue.* The City's position was, [Response H-6] *For the reasons described in Section 2.6 of the Draft EIR and the Master Noise Response, the proposed project will not result in a significant increase in noise. Therefore, CEQA does not require the consideration of mitigation measures.*

The Addendum reports analysis of an earthen berm with a wall on top of it, to reduce construction noise on the bridge. In fact, the earthen berm was proposed to reduce train noise, and noise emanating from underneath the bridge, and the wall was proposed at ground level, to keep the berm off of the adjacent property.

This was to be a 6-foot (or lower) masonry wall adjacent to 360 Angel Avenue, next to a 15' earthen berm. This fence was also raised in connection with the requirement of a six-foot masonry fence between a residential use and an incompatible use as

described for example in SMC 18.12.100.[1] At $50 a square foot, the cost of the wall might be 30k$ depending on the required footing. The earthen berm would be inexpensive. To emphasize, this is not a wall on top of a berm, this is primarily a berm, whose horizontal extent can be shortened by the help of a masonry fence.

As to the feasibility of the earthen berm, residents pointed out in the March 2007 settlement conference where this earthen berm was discussed, that during the Mozart project, landscape manure was piled in this area higher than the adjoining home. This experience has convinced the residents that the City is capable of piling it high in the vicinity of Angel Avenue, and will not be challenged by the requested 15' earthen berm. A small sign "dump your dirt here" would probably get the berm going quickly, and inexpensively, as right now folks are dumping their dirt over by the W. Hendy caltrain tracks (and their couches, and fridges, etc.).

The effect of an earthen berm in reducing ambient noise due to horn blasts for eastbound ("southbound") trains would be at a minimum 5dB due to blocking the line of sight, potentially more depending on the details of the geometry. The berm would be still more effective in reducing noise from construction traffic and activities underneath the bridge. Such a berm would also reduce passby noise, although its effectiveness in that role would be limited by the absence of a sound-wall along the property line with the right-of-way. One the whole, considering the present severe noise conditions, a berm could afford a significant, low-cost improvement during the construction period, under conditions which the City has found to correspond to significant impact. The cost of these measures, at perhaps 30k$ is less than half the cost of the budget for environmental work for this project, and thus is feasible.

Employing soft-ground cover under the bridge would reduce reverberation and this too should be considered; however, during the construction phase dust would be then be a concern.

Fails To Analyze Construction Traffic Noise The City does not characterize noise due to construction traffic. This neighborhood presently sees very little traffic, primarily traffic from neighborhood residents (as the Angel-Beemer connection does not go through, it forms a big U). To have construction vehicles driving up and down the street all day for 700 days in front of homes with under 20' setbacks guarantees a much higher amount of traffic, throughout the neighborhood, and with that, noise. This could better be quantified with some estimate of how many days the streets would be used by construction traffic and the quantity of traffic. Meantime noise from construction traffic is not accounted for at all, and potentially could affect a larger number of homes than considered in the foregoing.

Omits a Feasible Construction Noise Mitigation The City could propose alternatives to use of the back-up sound, the leading irritant in previous construction projects in this neighborhood. Instead, the City is claiming that by restricting construction to only 7AM-

[1] SMC 18.12.100: 'Masonry wall and landscaping. (a) A decorative masonry wall shall be constructed on dedicated land immediately adjacent to residential subdivisions fronting on a major thoroughfare, street or highway as to any lot as to which access is from another street. Such wall shall be six feet in height measured by the highest adjoining finished grade as approved by the director of community development...."

6PM on weekdays, and only 8AM-5pm on Saturdays that it is mitigating the construction noise levels. In fact, it would violate code to engage in construction activities outside these hours, and simply controlling the hours does not in fact control the interior noise levels, which presently are proposed to exceed General Plan requirements despite the mitigations.

Conclusion

This Addendum finds that "it is not feasible to reduce all significant construction-generated noise impacts to a less-than-significant level", and it applies this finding to support a Statement of Overriding considerations. The finding is in error; as feasible mitigations are available as out lined in the foregoing.

RESPONSES TO COMMENTS

received on the

ADDENDUM

to the

ENVIRONMENTAL IMPACT REPORT

for the

MATHILDA AVENUE BRIDGE REHABILITATION PROJECT SUNNYVALE, CALIFORNIA

State Clearinghouse Number 2006012030

CITY OF SUNNYVALE

MARCH 3, 2008

As the Lead CEQA Agency for the Mathilda Avenue Bridge Rehabilitation Project, the City of Sunnyvale (City) prepared an Addendum to the project's previously-certified Environmental Impact Report (EIR). The Addendum was prepared in response to an August 2, 2007 Peremptory Writ of Mandate from the Santa Clara County Superior Court, which directed the City to reconsider the portion of the EIR pertaining to construction noise mitigation. The Peremptory Writ of Mandate was issued in response to a lawsuit filed by David Whittum, a Sunnyvale resident, in which it was alleged that the EIR was deficient on a number of grounds.

Per § 15164(c) of the CEQA Guidelines, an Addendum need not be circulated for public review. Nonetheless, recognizing the importance of the construction noise issue to the community, and recognizing the importance of public review and input in the CEQA process, the City decided to circulate the Addendum for 45 days and to also respond to comments it received on the Addendum.

The 45-day public review period concluded on February 4, 2008. One comment was received, from David Whittum, the Petitioner in the above-referenced lawsuit.

Comment 1-A

Environmental Setting: The Mathilda Overcrossing Project is proposed in an area situated next to an R2-zoned residential neighborhood consisting of detached single-family homes, duplexes and multi-units on Beemer Avenue, and the "L"-shaped Angel Avenue, the east-west leg of which parallels the railroad right-of-way under the control of the Peninsula Corridor Joint Powers Board ("Caltrain") and Sunnyvale Station, lying directly under the Moffett Field flight path. The homes nearest the project are within 100 feet of the structure. Multi-unit housing lies within 200 feet.

As of 1998, the City's Noise Element depicts noise contours in excess of plan guidelines throughout most of the neighborhood and observes that:

"Current noise levels are acceptable for all but approximately 80 older homes near the tracks which experience 'conditionally acceptable' noise levels. Some of these homes are exposed to excessive outdoor noise (above 70dB Ldn) and probably excessive interior noise as well (above 45dB Ldn). "

Since that time, the neighborhood has seen City approval of a multi-story office complex across the tracks, demolition of the train station, construction of a multi-story parking garage, and a new PA system. For the first time Sunnyvale Station pedestrian at-grade rail-crossings had gates installed in a City-partnered project, with crossing bells installed near homes. During the summer of 2003, the Caltrain Baby-Bullet upgrade saw all-night, all-weekend construction periods, including heavy use of the "backup-sound". Since that time commuter train frequency has increased from 56 per day to 96 per day, operating around the clock except for a gap between 1 a.m. and 5a .m., during and around which freight trains operate. The neighborhood recently gained an ADA compliant

access to Sunnyvale Station at W. Hendy Avenue, after filing of a complaint with the Federal Transit Administration Office of Civil Rights (DOT 2006-0186).

Noise sources in the neighborhood today include train horn, train bells, locomotive idling, locomotive passby noise, locomotive braking, head-end power unit, crossing bells, platform public-address system, military aircraft (heavy-lift, attack, helicopter), fire trucks from Station #1, at the base of Mathilda, and traffic on the Mathilda overcrossing, presently partially obscured by seventeen 40-foot pine trees.

The City has testified that noise in this neighborhood is 57dB(A). Specifically, as part of the IS/MND, City-sponsored noise measurements took place in April 2004. The consultant measured peak hour noise levels (Leq) at one location in this neighborhood, a block from the east-west leg of Angel Avenue, i.e., one block from the homes situated abutting the railroad right-of-way, in the shadow of the Mathilda overcrossing. This was a 15-minute measurement around 6:30AM April 30, 2004 showing 57dB(A). The same consultant went on to perform a calculation resulting in a report that noise levels in backyards on Angel Avenue would range from 59-63(A) in the year 2020.

The City has not provided nor acknowledged any other characterization of noise in this neighborhood, notwithstanding the description in the General Plan, and comments dated January 2005 in the record presenting measurements showing that commuter train noise peaks over 90 dB(A) at a home adjoining the project site, and calculations based on these measurements consistent with an Ldn in the range of 70dB(A).

Response 1-A This comment describes existing noise sources and noise levels in the vicinity of the project. The subject of existing noise levels, including the contention that the EIR failed to adequately disclose such levels, is unrelated to the issue of the adequacy of mitigation measures for construction noise.

Comment 1-B **Project:** The Project will rehabilitate the six-lane bridge over the course of two years of construction work. The bridge, which has not been claimed to be structurally deficient, meets the standards in force at the time it was built, and exceeds them thanks to seismic upgrades. According to the DEIR:

"The construction of the project will involve a wide variety of construction equipment for such tasks as earth hauling, excavating, contouring, grading and compacting of surfaces. Columns will be cast, surfaces will be paved, and steel members will be joined together. Most of the construction activities will involve the use of noise-generating diesel-powered heavy equipment such as dump trucks and bulldozers, concrete pumps, air compressors, cranes and generators.

Most diesel-powered heavy construction equipment produces noise levels of 75 to 90 decibels when it is at a distance of 50 feet.

...

Structural work, which typically lasts longer and involves more equipment than non-structural work, will be required for the widening of the Mathilda Avenue bridge, for the demolition of the existing off-ramp, the construction of the new loop off-ramp, and the reconstruction of the pedestrian crossings.

...

Pile driving will likely be used during construction of the project. Pile drivers produce an impact noise each time the hammer strikes the pile (or the temporary cap on the top of the pile). The peak decibel levels during the sound impulses from pile drivers vary substantially according to the circumstances but often fall in the range of 95 to 105 decibels at a distance of 50 feet."

The Project will result in construction-related noise impacts. Construction noise impacts will reach the level of 55-70dB(A) indoors with windows shut, and this is significant given the indoor level of 45dB(A) adopted in the General Plan.

This project comprises 27-months of construction, including Saturdays, for a total of approximately 700 days of construction activity. The Addendum admits that during this construction period noise levels at homes nearby will reach 65-80 dB indoors if windows are left open, and 55 to 70 dB indoors if windows are closed. The Addendum admits that the proposed project will include 36 days of pile-driving within 100-feet of assorted residences along the project alignment. Noise-levels during pile-driving will range from "89 to 99 decibels" at 100 feet, and "77 to 87" decibels at 400 feet. The Addendum claims that the project will limit night-time construction to 6 nights of construction work. The Addendum admits no limit to construction traffic other than that necessary traffic will be permitted. This is to say, there could well be 700 days of construction traffic on a virtual cul-de-sac that the General Plan admits is now relatively quiet, in between trains, and on which the EIR represents noise levels to be a quiet 57dB(A).

Response 1-B

While this comment correctly summarizes some of the information that is contained in the Addendum, the comment contains several inaccuracies:

- The comment implies that all 36 days of pile driving will be within 100 feet of residences. As shown on Figure 1 of the Addendum, this is not the case. For example, the piles on the west side of Mathilda Avenue are approximately 175 feet from the nearest homes.
- The comment incorrectly states that there could well be 700 days of construction traffic on a given residential street. As stated in the Addendum, construction will move to varying locations as the project components are built over the 27-month period. Further, per mitigation measure #12 (page 16 of the Addendum), the City will prohibit the use

of residential streets by construction traffic except where it is required to construct adjacent improvements.

Comment 1-C **Fails to Assess Condition of Homes** The report does not assess the condition of the dozens of homes affected by this project, whether they include HVAC, make-up air and double-pane windows. Absent make-up air, windows cannot be assumed to be shut all day for 6 days out of 7 for a 27 month period. More typically in this neighborhood, windows are left open during the day for fresh air, as they must be shut at night in order to sleep through the noise of the trains. The Addendum assumes windows will be shut all day and overlooks that they also need to be shut all night on account of the trains. Thus the Addendum does not present a workable plan by which residents affected could live through this project. Residents will need oxygen and sleep, and this project asks them to choose one or the other.

Response 1-C The Addendum does not assume that nearby residents keep their windows closed all the time, nor does the Addendum suggest keeping windows closed during all hours of construction is a practical mitigation measure. The analysis in the Addendum recognizes that residential windows are frequently opened and closed, which is why the noise levels under both conditions are described in the text and table on page 7 of the Addendum.

Comment 1-D **Fails to Assess Adverse Effects on Human Beings** Moreover, the Addendum assumes that folks sleep at night, neglecting the situation of shift-workers. This Addendum makes clear that swing and owl shift workers will be severely impacted, potentially unable to sleep, and yet provides no assessment of how many such workers will be affected and no assessment of the feasibility of relocation. For example, there are four Section 8 units within 100 feet of the project. The City fails to analyze the cost of subsidizing four units elsewhere for the duration of the project.

Absent relocation, one needs to believe that folks who need to sleep during the day, are going to sleep indoors with 70dB. This is at odds with the standard adopted in the General Plan of 45dB(A). Relocation should be assessed as a feasible mitigation.

Response 1-D The City included mitigation measure #10 (page 16 of the Addendum) in the project specifically to address any special circumstances such as that cited in this comment. For example, if an owl shift worker cannot sleep due to nearby pile driving, the Noise Disturbance Coordinator will have the authority to implement reasonable measures necessary to correct the problem, which could include temporary accommodation at a hotel. The Coordinator will address all construction-related noise complaints irrespective of whether the person resides in Section 8 housing.

Comment 1-E

Confuses Reducing Noise from Construction Equipment with Reducing Noise Impact During the Construction Period The Addendum employs the logic that construction noise is a significant impact, that it cannot feasibly be mitigated, and thus a statement of over-riding considerations may be considered. This logic is flawed. Where construction noise itself cannot be directly mitigated, then feasible mitigation of other sources of noise present during the construction period must be considered first, if a statement of overriding considerations is to be considered. That is, mitigation refers to noise as measured by the adopted metrics, e.g. Ldn. This metric does not distinguish the particular sources of noise, it is a single quantity. Thus mitigation of train noise, for example, must be considered, if feasible.

Response 1-E

This comment asserts that if project-generated construction noise cannot feasibly be mitigated, then CEQA requires the City to consider mitigating noise unrelated to the project (e.g., noise from existing trains). This interpretation of CEQA is incorrect because it implies that a proposed project is responsible for mitigating existing conditions. Further, CEQA and constitutional law require a nexus between impacts and mitigation. In this example, there is no nexus between the construction-related noise impacts of the Mathilda Avenue Bridge Rehabilitation project and existing train noise.

Comment 1-F

Fails to Correctly Analyze E arthen Berm A statement of over-riding considerations requires that feasible mitigations have been analyzed. The City has not correctly analyzed the mitigation proposed repeatedly by the neighborhood, [Comment H-6] *sound-walls, berms buttressed by retaining walls, soft groundcover under the overpass to reduce reverberation and lower noise levels on Angel Avenue*. The City's position was, [Response H-6] *For the reasons described in Section 2.6 of the Draft EIR and the Master Noise Response, the proposed project will not result in a significant increase in noise. Therefore, CEQA does not require the consideration of mitigation measures.*

The Addendum reports analysis of an earthen berm with a wall on top of it, to reduce construction noise on the bridge. In fact, the earthen berm was proposed to reduce train noise, and noise emanating from underneath the bridge, and the wall was proposed at ground level, to keep the berm off of the adjacent property. This was to be a 6-foot (or lower) masonry wall adjacent to 360 Angel Avenue, next to a 15' earthen berm. This fence was also raised in connection with the requirement of a six-foot masonry fence between a residential use and an incompatible use as described for example in SMC 18.12.100.[1] At $50 a square

[1] SMC 18.12.100: 'Masonry wall and landscaping. (a) A decorative masonry wall shall be constructed on dedicated land immediately adjacent to residential subdivisions fronting on a major thoroughfare, street or highway as to any lot as to which access is from another street. Such wall shall be six feet in height measured by the highest adjoining finished grade as approved by the director of community development. ..."

foot, the cost of the wall might be 30k$ depending on the required footing. The earthen berm would be inexpensive. To emphasize, this is not a wall on top of a berm, this is primarily a berm, whose horizontal extent can be shortened by the help of a masonry fence.

As to the feasibility of the earthen berm, residents pointed out in the March 2007 settlement conference where this earthen berm was discussed, that during the Mozart project, landscape manure was piled in this area higher than the adjoining home. This experience has convinced the residents that the City is capable of piling it high in the vicinity of Angel Avenue, and will not be challenged by the requested 15' earthen berm. A small sign "dump your dirt here" would probably get the berm going quickly, and inexpensively, as right now folks are dumping their dirt over by the W. Hendy caltrain tracks (and their couches, and fridges, etc.).

The effect of an earthen berm in reducing ambient noise due to horn blasts for eastbound ("southbound") trains would be at a minimum 5dB due to blocking the line of sight, potentially more depending on the details of the geometry. The berm would be still more effective in reducing noise from construction traffic and activities underneath the bridge. Such a berm would also reduce passby noise, although its effectiveness in that role would be limited by the absence of a sound-wall along the property line with the right-of-way. On the whole, considering the present severe noise conditions, a berm could afford a significant, low-cost improvement during the construction period, under conditions which the City has found to correspond to significant impact. The cost of these measures, at perhaps 30k$ is less than half the cost of the budget for environmental work for this project, and thus is feasible.

Employing soft-ground cover under the bridge would reduce reverberation and this too should be considered; however, during the construction phase dust would be then be a concern.

Response 1-F

This comment talks about the fact that an earthen berm, masonry wall, and/or soft ground cover would have benefits in terms of reducing train noise and reverberation of noise off of the bridge structure. These issues are unrelated to the subject of mitigating construction noise. The City notes that the original EIR concluded that the project would not result in any long-term noise impacts and, therefore, no mitigation was required. Although the Petitioner challenged this conclusion in his lawsuit, the Court found that the EIR's conclusion was supported by substantial evidence.

In terms of the Court order, the only relevant question is whether berms and/or masonry walls could feasibly reduce construction noise. This is the issue analyzed on page 17 of the Addendum. The analysis, which was undertaken by

the acoustical consulting firm of Illingworth & Rodkin, concludes that a solid barrier 21 feet in height (i.e., a 6-foot wall on top of a 15-foot berm) would not be an effective mitigation for construction noise. The analysis states that such a barrier would "not block the line of sight for construction activities occurring on top of the overpass and therefore would provide no noise reduction from such construction. Further, the barrier would not block the line of sight to construction activities occurring north of Angel Avenue or south of the Caltrain line and therefore would provide no noise reduction from such construction." This conclusion would remain the same regardless of the barrier's length.

Ground cover would provide no benefit because it would not block any lines of sight between residences and construction equipment.

Comment 1-G

Fails To Analyze Construction Traffic Noise The City does not characterize noise due to construction traffic. This neighborhood presently sees very little traffic, primarily traffic from neighborhood residents (as the Angel-Beemer connection does not go through, it forms a big U). To have construction vehicles driving up and down the street all day for 700 days in front of homes with under 20' setbacks guarantees a much higher amount of traffic, throughout the neighborhood, and with that, noise. This could better be quantified with some estimate of how many days the streets would be used by construction traffic and the quantity of traffic. Meantime noise from construction traffic is not accounted for at all, and potentially could affect a larger number of homes than considered in the foregoing.

Response 1-G

The Addendum does characterize and quantify noise from construction traffic. For example, the text on page 6 of the Addendum states that heavy construction equipment, which includes vehicles such as dump trucks, produces noise levels of 75 to 90 decibels when it is at a distance of 50 feet. Page 7 of the Addendum states that such levels "are highly intrusive in effect and can be expected to cause a considerable amount of annoyance." Noise from smaller vehicles such as pickup trucks and vans would be less.

Table 1 on page 7 of the Addendum illustrates how these noise levels would change as one moves farther from the construction vehicles. The table allows residents to quantify the noise level at their homes based on their distance from the construction vehicles. As indicated in Table 1, if there are buildings between the equipment and a given residence, noise levels would be much lower.

The text on page 16 of the Addendum states that construction traffic would be prohibited from Angel Avenue except where equipment is needed to construct the east side bridge widening and pedestrian overcrossing. Therefore, the

statement in this comment that there will be "construction vehicles driving up and down the street all day for 700 days in front of homes" is not accurate.

Comment 1-H **Omits a Feasible Construction Noise Mitigation** The City could propose alternatives to use of the back-up sound, the leading irritant in previous construction projects in this neighborhood. Instead, the City is claiming that by restricting construction to only 7AM-6PM on weekdays, and only 8AM-5PM on Saturdays that it is mitigating the construction noise levels. In fact, it would violate code to engage in construction activities outside these hours, and simply controlling the hours does not in fact control the interior noise levels, which presently are proposed to exceed General Plan requirements despite the mitigation.

Response 1-H In response to this comment, this issue was investigated and the City found that various entities have required mitigation for the disturbance caused by backup alarms during nighttime construction. Therefore, the City will incorporate the following additional mitigation measure into the project:

NOISE-13 For nighttime construction, all equipment on the construction site shall be equipped with ether audible self-adjusting backup alarms or manual adjustable alarms. The self-adjusting backup alarms shall automatically adjust to 5 dBA over the surrounding background noise levels. The manually adjustable alarms shall be set at the lowest setting required to be audible above the surrounding noise. Alarm levels shall comply with the performance criteria of OSHA and Cal-OSHA.

Comment 1-I **Conclusion** This Addendum finds that "it is not feasible to reduce all significant construction-generated noise impacts to a less-than-significant level", and it applies this finding to support a Statement of Overriding considerations. The finding is in error; as feasible mitigation are available as outlined in the foregoing.

Response 1-I The City is unaware of any feasible mitigation measure for construction noise that has not been incorporated into the project. In this comment letter, there are requests that the City consider implementing additional mitigation measures. These measures, along with their disposition, are as follows:

1. Relocation: As stated in Response 1-D, this measure is already included in the project because the Noise Disturbance Coordinator will be able to authorize temporary relocation, if warranted, to address special circumstances.
2. Berms/Masonry Walls: As stated in Response 1-F, and as analyzed in the Addendum, this measure is not feasible.

3. Ground Cover: As stated in Response 1-F, this measure is not feasible.
4. Control of Noise from Backup Alarms: As stated in Response 1-H, a new measure has been added to the project to address this impact.

MITIGATION MONITORING AND REPORTING PROGRAM

MATHILDA AVENUE BRIDGE REHABILITATION PROJECT

CITY OF SUNNYVALE

NOVEMBER 2006

Revised **FEBRUARY 2008**

P r e f a c e

Section 21081 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring and Reporting Program whenever it approves a project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring and reporting program is to ensure compliance with the mitigation measures during project implementation.

The environmental impacts of the Mathilda Avenue Bridge Rehabilitation Project were analyzed and described in an Environmental Impact Report (EIR) and a subsequent EIR Addendum. The EIR and Addendum concluded that the implementation of the project would result in a number of significant effects on the environment and describes mitigation measures that will lessen or avoid the impacts. This document lists all of the mitigation measures, and describes:

- How the measures will be implemented
- Who will implement the measures
- When the measures will be implemented

This document does not discuss those subjects for which the EIR concluded that the impacts from implementation of the project would be less-than-significant.

Description of Measure	Timeframe for Implementation	Responsibility for Implementation	Oversight for Implementation
CONSTRUCTION-RELATED NOISE AND VIBRATION			
Pile driving will be limited to the hours of 8 AM to 6 PM, Monday through Friday, with no pile driving on weekends or holidays.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department
With one limited exception, construction operations will be restricted to daytime hours of 7 AM to 6 PM, Mondays through Fridays, and 8 AM to 5 PM, Saturdays, with no construction activities on Sundays or holidays, to avoid the more sensitive evening and early morning hours (Sunnyvale Municipal Code Section 16.08.110). The exception, which is mandated by Caltrain for safety purposes, consists of the placement/removal of falsework directly over the Caltrain tracks and the placement of the rebar/formwork for the column adjacent to the Caltrain tracks. This is estimated to take a total of 6 nights.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department

Description of Measure	Timeframe for Implementation	Responsibility for Implementation	Oversight for Implementation
Equipment will use available (i.e., standard) noise suppression devices and properly maintained mufflers. Construction noise can be reduced by using quiet or "new technology" equipment, particularly the quieting of exhaust noises by use of improved mufflers, and the use of such equipment is recommended. All internal combustion engines used at the project site will be equipped with the type of muffler recommended by the vehicle manufacturer. In addition, all equipment will be maintained in good mechanical condition so as to minimize noise created by faulty or poorly maintained engine, drive-train, and other components.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department
Staging of construction equipment and unnecessary idling of equipment within 200 feet of noise-sensitive land uses will be avoided whenever feasible. "Feasible", as used here, means that the implementation of this measure would not have a notable effect on construction operations or schedule.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department
Temporary walls/barriers/enclosures will be erected around stationary construction equipment (e.g., compressors, generators, etc.) when such equipment will be operated at night or for an extensive period of time (i.e., more than 2-3 days) during daytime hours. Noise barrier walls and enclosures will contain absorptive material in order to prevent significant impacts upon other land uses due to noise reflection.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department

Description of Measure	Timeframe for Implementation	Responsibility for Implementation	Oversight for Implementation
Notification shall be given to residents within 400 feet alerting them of planned construction activities, including the overall durations of the various construction stages and the schedule of pile driving activities. The notification shall include the placement of notices on front doors ("door hangars") of nearby residences. The notification shall also describe the noise abatement measures that have been taken, as well as note the infeasibility of other measures that were considered but rejected.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department
Pile driver(s) will be shrouded with an acoustical blanket or barrier.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department
For the driving of piles, two pile drivers will be utilized.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department
Foundation pile holes shall be pre-drilled to minimize the number of impacts/blows required to seat the pile.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department

Description of Measure	Timeframe for Implementation	Responsibility for Implementation	Oversight for Implementation
A "Noise Disturbance Coordinator" will be designated for the purpose of responding to any local compliant about construction noise. The Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures warranted to correct the problem be implemented. The Coordinator would also be authorized to address and accommodate any special circumstances. An example of such circumstances would include someone with a medical condition or a home-bound individual who might be adversely affected by pile driving.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department
The City will conspicuously post the phone number of the Noise Disturbance Coordinator at the construction site and shall include the phone number on all notices sent to neighbors regarding the construction schedule.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department
Construction workers will not be permitted to park on neighborhood streets. Construction equipment and vehicles will utilize Angel Avenue only to the extent needed to construct the east side bridge widening and pedestrian overcrossing. Construction equipment and vehicles will utilize Charles Avenue only to the extent needed to construct the Charles Avenue cul-de-sac.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department

Description of Measure	Timeframe for Implementation	Responsibility for Implementation	Oversight for Implementation
For nighttime construction, all equipment on the construction site shall be equipped with ether audible self-adjusting backup alarms or manual adjustable alarms. The self-adjusting backup alarms shall automatically adjust to 5 dBA over the surrounding background noise levels. The manually adjustable alarms shall be set at the lowest setting required to be audible above the surrounding noise. Alarm levels shall comply with the performance criteria of OSHA and Cal-OSHA.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	Public Works Department
BIOLOGY			
For each tree of "significant size" being removed by the project, replacement trees will be planted in the immediate project area. Locations for new trees will include both sides of Angel Avenue, the new parking area within the loop off-ramp, the bermed area on the outside of the loop off-ramp, and the median of Evelyn Avenue.	Final design phase (replacement tree types & locations to be shown on plans); construction phase (tree planting)	Design phase: engineer and landscape architect; Construction phase: contractor	Public Works Department and City Arborist
The construction superintendent shall meet with the City Arborist before beginning work to discuss work procedures and tree protection.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	City Arborist
All trees to be retained shall be fenced to completely enclose the tree protection zone prior to demolition, grubbing, or grading. Fences shall be as approved by the City Arborist and are to remain until all grading and construction is completed.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	City Arborist

Description of Measure	Timeframe for Implementation	Responsibility for Implementation	Oversight for Implementation
Trees to be preserved shall be pruned to clean the crown and to provide clearance. All pruning shall be completed or supervised by the City Arborist and adhere to the Best Management Practices for Pruning of the International Society of Arboriculture.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	City Arborist
No grading, construction, demolition or other work shall occur within the tree protection zone of trees to be preserved. Any modifications must be approved and monitored by the City Arborist.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	City Arborist
For trees to be retained, any root pruning required for construction purposes shall receive the prior approval of, and be supervised by, the City Arborist.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	City Arborist
Supplemental irrigation for trees to be retained shall be applied as determined by the City Arborist.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	City Arborist
For trees to be preserved, if injury should occur to any tree during construction, it shall be evaluated as soon as possible by the City Arborist so that appropriate treatments can be applied.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	City Arborist

Description of Measure	Timeframe for Implementation	Responsibility for Implementation	Oversight for Implementation
No excess soil, chemicals, debris, equipment, or other materials shall be dumped or stored within the tree protection zone of any tree to be preserved.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	City Arborist
For trees to be preserved, any additional tree pruning needed for clearance during construction must be performed or supervised by the City Arborist.	Final design phase (include requirement in contract specs); construction phase (implement)	Design phase: engineer; Construction phase: contractor	City Arborist
For construction activities that take place during the breeding season (i.e., January through August), preconstruction surveys for nesting raptors will be conducted by a qualified ornithologist to ensure that no raptor nests will be disturbed during project implementation. During this survey, the ornithologist will inspect all trees in, and immediately adjacent to, the impact areas for raptor nests. If an active raptor nest is found close enough to the construction/demolition area to be disturbed by these activities, the ornithologist, in consultation with CDFG, will determine the extent of a construction-free buffer zone, typically 250 feet, to be established around the nest.	No more than 14 days prior to the initiation of demolition or construction activities during the early part of the breeding season (Jan. - Apr.) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May - Aug.).	Qualified ornithologist	Public Works Department and California Dept. of Fish & Game (if necessary)

Description of Measure	Timeframe for Implementation	Responsibility for Implementation	Oversight for Implementation
All old swallow nests will be removed from the bridge/ramp structures before swallows return to the nesting site. Once the birds return, removal will be repeated at a frequency necessary to prevent nest completion or until project construction is complete.	Prior to February 15th in the year construction will commence.	City or contractor under supervision of ornithologist	Public Works Department
If construction will occur between mid-February and September, preconstruction surveys for nesting swallows will be conducted to ensure that they are not utilizing areas to be disturbed during construction.	No more than 14 days prior to the initiation of demolition or construction activities.	Qualified ornithologist	Public Works Department
Intact swallow nests are assumed to be occupied between February 15 and September 1. If preconstruction surveys find nesting swallows, it may be possible to obtain a permit to destroy occupied nests. If it is necessary to remove/destroy occupied swallow nests, a permit will be obtained from the USFWS Division of Animal Damage Control. Such a permit requires compelling justification that the work is essential to public safety. Any eggs removed from nests will require incubation by an approved wildlife rescue group.	Construction phase	Qualified ornithologist	Public Works Department and U.S. Fish & Wildlife Service (if necessary)
VISUAL AND AESTHETIC			
Implement all of the aesthetic improvements that are part of the project, such improvements being listed on pages 7-8 of the Draft EIR.	Final design phase (all of the aesthetic improvements to be shown on plans); construction phase (implementation)	Design phase: engineer and landscape architect; Construction phase: contractor	Public Works Department and City Arborist

Description of Measure	Timeframe for Implementation	Responsibility for Implementation	Oversight for Implementation
Sources: Mathilda Avenue Bridge Rehabilitation Project EIR, 2006 and Mathilda Avenue Bridge Rehabilitation Project EIR Addendum, 2007.			

RESOLUTION NO. 08-_____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE CERTIFYING THE ENVIRONMENTAL IMPACT REPORT and EIR ADDENDUM FOR THE MATHILDA AVENUE BRIDGE PROJECT AND MAKING RELATED FINDINGS, AND ADOPTING A MITIGATION MONITORING AND REPORTING PROGRAM AND THE STATEMENT OF OVERRIDNG CONSIDERATIONS

The City Council of the City of Sunnyvale does hereby **RESOLVE** as follows:

SECTION 1. Background and Project Description

A. The following findings are hereby adopted by the City Council of the City of Sunnyvale ("City Council") to comply with the requirements of the California Environmental Quality Act ("CEQA"; Pub. Resources Code, §§ 21000 et seq.), and Sections 15091, 15092, 15093, and 15162 of the CEQA Guidelines (14 Cal. Code Regs., § 15000 et seq.). These findings are made relative to the conclusions of the City of Sunnyvale Mathilda Avenue Bridge Overcrossing Project Environmental Impact Report (State Clearinghouse No. 22006012030) (the "EIR"), which includes the Draft Environmental Impact Report ("Draft EIR"), Public Comments, and Responses to Comments. The EIR for the Project consists of the DEIR dated April 26, 2006 and the FEIR dated August 24, 2006 (Responses to Comments Document), the EIR Addendum dated December 19, 2007, and comments and Responses to EIR Addendum Comments of March 3, 2008. These documents are collectively referred to as the "EIR" in this resolution. The EIR addresses the environmental impacts of the implementation of the proposed Project and is incorporated herein by reference.

B. On December 29, 2006, a petition for Writ of Mandate was filed challenging the FEIR in four areas. A Peremptory Writ of Mandate issued on August 2, 2007, wherein the Court upheld the City's determinations in three causes of action, but determined that substantial evidence did not support the conclusion that construction noise impacts could be mitigated to a less than significant level. The Court returned the matter back to the City for further determinations in light of its decision. The City prepared an EIR Addendum that focused on construction noise impacts. The EIR Addendum was published on December 18, 2007, and promptly provided for public comments for a 45-day period by publication, posted on the City website and mailed to each person who submitted comments. The City received one comment from petitioner and a Response to Comments was prepared. The City Council considered the matter at their regularly scheduled meeting on March 18, 2008 on the EIR (including the EIR Addendum, Comments and Responses to Comments).

C. Mitigation measures associated with the potentially significant impacts of the Project will be implemented through the Mitigation Monitoring and Reporting Program for the Project, which is the responsibility of the City, thereby ensuring that the City of Sunnyvale Mathilda Bridge project (the "Project") will have no significant adverse environmental impacts, except as noted herein.

D. The City of Sunnyvale (the "City") is lead agency for the Project under the California Environmental Quality Act ("CEQA"), Public Resources Code 21067 as it has the principal responsibility to carry out and approve the Project, which may have a significant impact upon the environment.

E. Based upon review and consideration of the information contained therein the City Council hereby certifies that the EIR was completed in compliance with CEQA, and reflects the City of Sunnyvale's independent judgment and analysis. The City Council has considered evidence and arguments presented during consideration of the Project and the EIR. In determining whether the Project may have a significant impact on the environment, and in adopting the findings set forth below, the City Council certifies that it has complied with Public Resources Code sections 21081, 21081.5, and 21082.2.

F. The City Council hereby finds, determines, and declares that no significant new information has been added to the EIR so as to warrant recirculation of all or a portion of the EIR.

SECTION 2. Project Information

A. Project Objectives

The objectives of the Mathilda Avenue Bridge Overcrossing Project are to rehabilitate the Mathilda Avenue bridge which has been determined by Caltrans to be "functionally obsolete" which does not meet current design criteria concerning vehicular and non-vehicular traffic operations and safety. The Project objectives include rehabilitating the bridge to meet current design standards, to improve operations and safety for motorists, bicyclists and pedestrians. The City also desires to improve access to Downtown Sunnyvale as southbound access is difficult especially during peak commute periods.

The existing Mathilda Avenue Bridge Overcrossing bridge, located on Mathilda Avenue at Evelyn Avenue and the CalTrain overpass, was built in 1965. In 1981 and in 1993, the overcrossing bridge was retrofitted for seismic safety. Caltrans conducted a bridge inspection report in April 2000, assigning a Sufficiency Rating of 79.7, or "functionally obsolete", meaning the bridge structure and ramps do not meet current design criteria with regard to motorized and non-motorized traffic operations and safety.

B. Project Description

To address deficiencies with the existing bridge, the Mathilda Avenue Bridge Rehabilitation Project ("Project") is proposed to rehabilitate the existing Mathilda Avenue bridge and to improve access to downtown Sunnyvale. The Project is intended to address standards concerning bridge pier clearance and other standards concerning improving deceleration lane, shoulder width and bridge railings. The City of Sunnyvale further desires to improve access to Downtown Sunnyvale. Mathilda Avenue is recognized as one of the City's major arterials and functions as a critical access route to the downtown. The Project is intended to reduce queues in the left-turn lane at peak commute period and also improve congestion based on planned growth of the area.

In addition, the overcrossing bridge is listed on the Federal Highway Administration Eligible Bridge List for funding.

SECTION 3. Record of Proceedings

A. For purposes of CEQA, CEQA Guidelines section 15091(e), and these findings, the Record of Proceedings for the Project consists of the following documents, at a minimum: (1) The Notice of Preparation, Notice of Completion, Notice of Availability, and all other public notices issued by the City of Sunnyvale in connection with the Project; (2) the Draft EIR; (3) the Final EIR; (4) all comments and correspondence submitted by public agencies or members of the public during the public review and comment period (April 2001 through March 18, 2008) on the Draft EIR; (5) The EIR Addendum and comments to the EIR Addendum during the public review period from December 19, 2007 through February 4, 2008; (6) written and oral comments received or made at Bicycle and Pedestrian Advisory committee and public outreach meetings on August 25, 2004, (7) the Mitigation Monitoring and Reporting Program; (8) all findings and resolutions adopted by the City Council in connection with the Project, and all documents cited or referred to therein; (9) all final reports, studies, memoranda, maps, staff reports, or other planning documents relating to the Project prepared by the City of Sunnyvale, consultants, or responsible or trustee agencies with respect to the City of Sunnyvale's compliance with the requirements of CEQA, and with respect to the City of Sunnyvale's actions on the Project; (10) all documents timely submitted to the City of Sunnyvale by other public agencies or members of the public in connection with the Project; (11) minutes and/or verbatim transcripts of all public meetings and/or public hearings held by the City of Sunnyvale in connection with the Project; (12) matters of common knowledge to the City of Sunnyvale, including, but not limited to, federal, state, and local laws and regulations; (13) any documents expressly cited in these findings, in addition to those cited above; and (14) any other materials required to be in the record of proceedings by Public Resources Code section 21167.6(e).

B. The City issued a Notice of Preparation ("NOP") of an environmental impact report for the Project in November, 2005. The NOP was sent to all responsible agencies, trustee agencies, adjacent property owners, and members of the public who had previously requested notice. The NOP was published in the Sunnyvale Sun, a paper of general distribution. The City held a publicly noticed scoping meeting for the general public and public agencies on January 10, 2006. All aspects of the NOP process complied with Public Resources Code 21080.4. All comments received during the scoping process were considered in preparing the EIR.

C. A Draft Environmental Impact Report for the Mathilda Avenue Bridge Rehabilitation project, State Clearing House Number 2006012030, ("DEIR") was prepared for the Project and circulated for public comment on April 26, 2006 for a 45-day public comment period ending June 9, 2006. The DEIR includes a Traffic Report (Appendix C), a Hazardous Materials Report (Appendix D), and Noise Report (Appendix E). Copies of the DEIR were provided to all responsible agencies, trustee agencies, adjacent property owners, and members of the public who had previously requested notice. These agencies included, but were not limited to, the City of Mountain View, the Peninsula corridor Joint Power board, the California Department of Fish and Game (Region 3), the California Department of Transportation, the Santa Clara Valley Transportation Authority ("VTA"), the Santa Clara Valley Water District, the Regional Water Quality Control Board, the Department of Water Resources, the Department of Conservation, the Resources Agency, the Department of Parks and Recreation, the Office of Historic Preservation, the Native American Heritage Commission, and various departments within the City of Sunnyvale. Copies of the DEIR were also made available at the City of Sunnyvale Public Works Department, Traffic Division, the City of Sunnyvale Clerk-Recorder's Office, and the City of Sunnyvale public library. The City publicly noticed meeting for the general public and public agencies in November, 2005 to receive oral comments on the DEIR.

D. A Final Environmental Impact Report for the Mathilda Avenue Bridge Rehabilitation project, State Clearing House Number 2006012030 ("FEIR"), was published on August 24, 2006 and promptly provided to the public and all public agencies that commented on the project. The FEIR contains, among other things, the DEIR, responses to all oral and written comments received on the DEIR and text changes to the DEIR (Response to Comments Document), and a draft Mitigation Monitoring and Reporting Program.

E. On November 28, 2006, the Council voted to certify the FEIR, make the required CEQA findings, and adopt the Mitigation Monitoring and Reporting Program.

F. Following the issuance of a Writ of Mandate during the legal challenge of the EIR, the City prepared an EIR Addendum and circulated it for a 45-day public review period from December 19, 2007 through February 4, 2008. The City received a comment from petitioner on the EIR Addendum and the City prepared a response to Comments dated March 3, 2008. The City has also prepared a Mitigation Monitoring and Reporting Program (Revised) all of which are part of the EIR.

G. In addition to the public meetings and hearings described above, numerous other opportunities for public comment on and participation in Project decision-making were provided over the April, 2001 through January, 2006 time period, including duly noticed public meetings, community forums, town hall meetings, and community resource group meetings as shown in Table 7 of the DEIR at page 61.

H. In taking action on the Project, the City Council fully reviewed and considered the information contained in the EIR, the EIR Addendum, staff reports, oral and written testimony received from members of the public and other public agencies, and additional information contained in reports, correspondence, studies, proceedings, and other matters of record included or referenced in the administrative record of these proceedings.

I. Copies of all of the above-referenced documents, which constitute the record of proceedings upon which the City of Sunnyvale's decision on the Project is based, are and have been available upon request at the office of the Department of Public Works 456 W. Olive Street, Sunnyvale, California 94087.

SECTION 4. Adoption of Mitigation Monitoring and Reporting Program

(A) Pursuant to Public Resources Code section 21081.6, the City has prepared a Mitigation Monitoring and Reporting Program, as revised ("MMRP") which provides for implementation, monitoring reporting, and enforcement of all conditions and mitigation measures adopted to mitigate and/or avoid the Project's significant environmental impacts. The MMRP is attached as Exhibit "A" to this resolution and incorporated herein.

(B) The City Council hereby adopts the MMRP for the Project attached hereto and incorporated by reference, and finds, determines, and declares that adoption of the MMRP will ensure enforcement and continued imposition of the mitigation measures recommended in the EIR, and set forth in the MMRP, in order to mitigate or avoid significant impacts on the environment.

SECTION 5. Impacts Determined to be Less Than Significant

The Council has read and considered the EIR prepared for the Project, has considered each potential environmental impact of the Project, and has considered each mitigation measure and alternative evaluated in the EIR. In accordance with the requirements of CEQA and the Guidelines promulgated thereunder, the Council makes the following findings based upon substantial evidence in the record:

(A) A Notice of Preparation for the Project was prepared and distributed on November 2005 to all responsible and trustee agencies and interested parties. The notice solicited views of interested persons and agencies as to the scope and content of the environmental information to be studied in the Draft EIR. The City of Sunnyvale also held a public scoping meeting to receive public comments and suggestions on the Project on January 10, 2006. Through the

scoping process, which included both agency consultation pursuant to Public Resources Code section 21080.4(a) and CEQA Guidelines section 15082, and early public consultation pursuant to CEQA Guidelines section 15083, the City identified the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in depth in the Draft EIR, and eliminated from detailed study issues found not to be important.

(B) The City Council finds that the EIR (as augmented by the EIR Addendum) identifies no significant or potentially significant adverse impacts in the areas of land use, geology and soils, flooding and hydrology, hazardous materials, noise (post-construction), transportation and traffic, air quality, and cultural resources.

(C) The City Council hereby finds, determines, and declares that it has reviewed the EIR as augmented by the EIR Addendum with respect to the areas of potential impacts set forth above, and finds that the conclusions of the Draft EIR and Final EIR as augmented by the EIR Addendum are supported by substantial evidence in the record, including the detailed descriptions of potential impacts contained in the EIR, and the additional information and analysis contained in the Final EIR. The City Council further finds that no evidence has been introduced that would tend to call into question any of the conclusions of the Draft EIR or the Final EIR as augmented by the EIR Addendum with respect to such impacts. The City Council has independently exercised its judgment to conclude that each of the above impacts is less-than-significant or no impact, and therefore requires no mitigation except as embodied in the Project.

SECTION 6. Significant Impacts that Can be Avoided or Mitigated to a Less-Than-Significant Level.

The EIR concluded that the Project would result in potentially significant environmental impacts in the areas listed below. Through the imposition of the identified mitigation measures, the identified potentially significant environmental impacts will be reduced to less-than-significant impacts.

A. Biological Resources

(1) Biological Resources - Vegetation. With respect to biological resources, the EIR concludes that:

- the proposed design would require removal of 34 trees, of which 29 are defined as "protected tree" under the Sunnyvale Municipal Code

Mitigation for Loss of Trees includes (1) replacement trees will be planted in the immediate project area for each “protected” tree; (2) construction superintendent shall meet with City Arborist to discuss tree protection; (3) retained trees to be protected by fencing as approved by City Arborist; (4) preserved trees to be pruned for clean crown and clearance as supervised by City Arborist and adherence to Best Management Practices for Pruning of the International Society of Arboriculture; (5) no grading, construction, demolition or other work shall occur

within the tree protection zone and modification must be approved and monitored by the City Arborist; (6) any root pruning shall require approval by City Arborist; (7) supplemental irrigation shall be applied as determined by City Arborist; (8) injuries to trees shall be evaluated by City Arborist for appropriate treatments; (9) no excess soil, chemical, debris, equipment or other materials shall be dumped or stored within the tree protection zone; and (10) any tree pruning during construction must be supervised by City Arborist.

(2) Biological Resources - Wildlife. With respect to impacts to wildlife, the EIR concludes that:

- Trees to be removed by the project will create a significant impact to nesting habitat for raptors (e.g. eagles, hawks, and owls) and their nests are protected under federal and California laws and regulations.

Mitigation for Loss of Nesting Areas for Wildlife includes: (11) that preconstruction surveys for nesting raptors shall be conducted by a qualified ornithologist to ensure no nests will be disturbed during project implementation; (12) prior to February 15th, old nesting swallow nests will be removed from bridge/ramp structures before swallows return; (13) conduct preconstruction surveys for nesting swallows to ensure they are not utilizing areas to be disturbed during construction; and (14) permit from USFWS Division of Animal Damage Control will be secured if compelling justification exists that work is essential to public safety to remove eggs and require incubation by an approved wildlife rescue group.

B. Visual/Aesthetic Resources. With respect to impacts to visual/aesthetic resources, the EIR concludes that the following impacts are significant:

The bridge project will require: (1) the removal of 20 Canary Island trees located in the Northwest Quadrant; (2) the new loop off-ramp from southbound Mathilda Avenue to Evelyn Avenue will require the removal of two Sweet Gum trees from the northerly part of the existing Charles/Evelyn parking lot; (3) the reconstruction of the existing pedestrian ramp will result in the removal of one Victorian Box tree located on the north side of Evelyn Avenue; and (4) the replacement of the existing pedestrian ramp will require removal of eight Canary Island Pine trees located on the north side of Evelyn Avenue.

Mitigation for Loss of Trees which impacts Visual/Aesthetic Resources includes: incorporating architectural and visual elements into the design; providing substantial landscaping and tree replacement; and planting replacement trees with large trees of Redwood and Goldenrain on the east side of Angel Avenue.

The EIR analyzed all of the Project's potentially significant environmental impacts, including indirect environmental impacts associated with the Project's socioeconomic impacts. Based on information in the EIR and other documents in the record, the Council finds that the significant impacts to biological resources and to visual/aesthetic resources can be avoided or mitigated to a less than significant level.

SECTION 7. Significant and Unavoidable Impacts

The EIR, as augmented by the EIR Addendum, identifies the following potentially significant impacts that cannot be fully avoided or substantially lessened by the above-referenced mitigation measures.

A. Construction Noise. With respect to construction noise, the EIR Addendum concludes that it is not feasible to reduce all significant construction-generated noise impacts to a less-than-significant level for all groups of receptors. This conclusion is based on the fact that two residential neighborhoods are located in close proximity to the project, that the project will involve pile driving which can be disruptive to nearby residents despite the inclusion of feasible mitigation measures, that safety restrictions required by Caltrain require approximately six nights of construction, and that total duration of construction will be approximately 27 months.

B. Nighttime Construction. An estimated six nights of nighttime construction will be necessary over the course of the 27-month construction period. This work is required by the safety regulations of the CPUC and Caltrain, which regulations which prohibit construction occurring directly over the railroad tracks during Caltrain's operating hours. The potential for sleep disturbance will be further minimized by the mitigation measures, which include designating a construction disturbance coordinator with authority to address noise issues, including temporary accommodations, to address all construction-related noise complaints, and positioning stationary equipment away from homes and shielding such equipment with enclosures.

Mitigation for Construction Noise includes the following measures:

- Limitation on hours of pile driving
- Shrouding of pile drivers with acoustical blankets or barriers
- Utilization of two pile drivers to reduce the number of days of pile driving
- Pre-drilling pile foundation holes
- Limitations on hours of construction activities
- Noise suppression devices, mufflers on equipment
- Staging of equipment away from noise-sensitive land uses
- Temporary noise walls/barriers/enclosures around equipment
- Designation of a Noise Disturbance Coordinator to respond to any local complaints about noise. Authorizing the Coordinator to require reasonable measures to correct problems and to accommodate special circumstances or needs of the complainant (including temporary relocation)
- Notification to residents of planned construction activities, including conspicuous posting of contact information for the Noise Disturbance Coordinator
- Minimizing the presence of construction-related vehicles on residential streets, such as Angel Avenue and Charles Street

- All equipment shall be equipped with either audible self-adjusting backup alarms or manual adjustable alarms.

In addition to the above measures, the EIR Addendum describes and analyzes three mitigation measures that were suggested in the comments received but two of which were not included as infeasible. These measures are: 1) the construction of a 6-foot wall on top of a 15-foot berm adjacent to the residence at 360 Angel Avenue; and, 2) the relocation of families affected by construction noise for the 2-year construction period. The acoustic expert analyzed the wall/berm concept, finding that it would not be effective in reducing noise, and was therefore not feasible. The concept of relocating people was found to be a disruption impact in itself and therefore also not feasible. The comments also included a third possible mitigation measure which is included in the list of mitigations, namely that all equipment shall be equipped with either audible self-adjusting backup alarms or manual adjustable alarms.

SECTION 8. Analysis of Alternatives.

The EIR analyzes a reasonable range of alternatives to the Project and Project components sufficient to foster public participation and informed decision making and to permit a reasoned choice, and the EIR adequately discusses and evaluates the comparative merits of the alternatives. Of the eight alternatives assessed in the EIR, the alternative with the least environmental impact is the No Project – No Subsequent Development Alternative. Section 15126.6(e)(2) of the CEQA Guidelines state that if the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Among the other alternatives, Alternative 7 - Mitigated Project Alternative is determined to be slightly environmentally superior alternative because it meets the objectives of the Project and removes five fewer trees.

All other alternatives evaluated in the EIR are rejected because they would either impair or prevent attainment of the Project objectives or are not environmentally superior. The particular reasons for rejecting each of the alternatives include the following:

Alternative 2. *No Project– No Construction Alternative* - This alternative assumes the Project would not be constructed at the site, all site characteristics would remain in their existing condition, and the Mathilda Avenue Bridge Overcrossing would continue to be used as a major traffic corridor in its current deficient state of "functionally obsolete" as determined by Caltrans. This alternative would not provide for accommodating future traffic and circulation needs of the Mathilda Avenue junction at Evelyn Avenue and Caltrain overcrossing, and therefore, would not meet fundamental Project objectives.

Alternative 3. *Widen to the West* - This alternative is similar to the proposed Project, except that instead of the 25-foot bridge widening occurring on both sides of the existing bridge, all widening would occur on the western edge only. It avoids biological and visual impacts associated with the loss of eight mature Canary Island Pine trees, but loss of trees on the west side would increase the loss by 20 additional Canary Island Pines and two adjacent rows of

mature Coast Redwood Trees, four Elms and one London Plane. This alternative is also infeasible because it could not be constructed to comply with highway design standards.

Alternative 4. *Reduced Cross-Section* - This alternative proposes to further reduce a cross-section of the proposed project design and maintain compliance with current highway design criteria. The footprint of the proposed project design cannot be further reduced without violating American Association of State Highway & Transportation Official design standards for widths of traffic lanes, shoulders and sidewalks; and for these reasons does not meet fundamental Project objectives.

Alternative 5. *Realign Evelyn Avenue Only* - This alternative proposes to realign Evelyn Avenue in the vicinity of Mathilda Avenue to avoid impacts to trees and lessen construction-related noise impacts. This alternative corrects only one of the existing highway design deficiencies, namely inadequate horizontal clearance between Evelyn Avenue and one of the support columns for the bridge. It does not correct inadequate traffic lane and sidewalk widths, railings insufficient merging lengths and compliance with ADA for pedestrian and bicycle ramps, and for these reasons does not meet fundamental Project objectives.

Alternative 6. *Construct Roundabout* - This alternative proposes a variation of the Project by (a) constructing a roundabout on Evelyn Avenue at Pastoria Avenue, and (b) replacing the existing substandard off-ramp with a new loop off-ramp at a different location. This alternative avoids impacts to an existing parking lot, but it does not facilitate improved access to the downtown because the roundabout would require drivers from southbound Mathilda Avenue to travel west.

Alternative 7. *Separate Pedestrian Overcrossing* – This alternative assumes development of the proposed project with all EIR mitigation measures incorporated as part of the alternative with the proposed project (Impacts B.1, B.2a, B.2b, B.2c and B.3 – Construction noise, tree removal, nesting raptors and Visual (tree removal). This alternative will not impair or prevent attainment of the Project objectives. Under this alternative, the City would construct a separate pedestrian over-crossing. This alternative would avoid the removal of eight mature Canary Island Pines, thus is slightly environmentally superior; however the structure would be located within close proximity of several existing residence on Angel Avenue, which would have adverse visual and privacy impacts. One of the residences is located within twenty feet of a separate pedestrian overpass.

Alternative 8. *Separate Pedestrian Under Crossing* – This alternative proposes a variation of the Project in that it would construct an undercrossing for the pedestrian/bicycle paths. The structure would be located within Caltrain right-of-way and would require there be no interference with rail operations. Thus, only nighttime construction work would be allowed as a condition of any Caltrain permission, even if approval could be had, which is not at all assured. The environmental impacts associate with this alternative include significant nighttime construction noises to adjacent residential property owners of greater extent than that of the

proposed Project, as well as the removal of a large Coast Live Oak. While this alternative does avoid the removal of eight mature Canary Island Pines, it is not environmentally superior.

SECTION 10. Finding Regarding Mitigation or Avoidance of Impacts.

Based on the adopted mitigation measures and alternative components, changes or alterations have been required in, or incorporated into, the project which mitigate or avoid all of the Project's potentially significant environmental effects, except for construction related noise .

SECTION 11. Mitigation Measures for Which Other Agencies are Responsible.

There are no changes or alterations that are partially or wholly within the responsibility and jurisdiction of other public agencies and that can and should be adopted by those other agencies.

SECTION 12. Statement of Overriding Considerations

There will be one unavoidable significant environmental impact that will occur directly as a result of the implementation of the Mathilda Avenue Bridge Rehabilitation Project (the "Project"). This impact is the adverse effect of construction-generated noise on nearby residents.

Notwithstanding the existence of this significant environmental effect that cannot be mitigated to a less-than-significant level, the City Council of the City of Sunnyvale does hereby find that the benefits of the Project outweigh the above-identified unavoidable significant environmental impact of the Project and, therefore, finds the environmental effect to be acceptable.

The overriding consideration is the benefit to the residential and business community of Sunnyvale. The Project will provide the community with an improved transportation facility that will improve safety, traffic operations, pedestrian/bicycle access, and access to the Downtown. Specific benefits will include the following:

- improvements in traffic safety and operations through the addition of shoulders, longer merging areas, and a new off-ramp from southbound Mathilda Avenue to Evelyn Avenue that meets current design standards
- improvements in traffic operations and safety on Evelyn Avenue by increasing the horizontal clearance between the roadway and one of the bridge columns
- improvements in pedestrian/bicycle safety and access through the addition of wider shoulders, upgraded railings, and new ramps that comply with the requirements of the Americans with Disabilities Act (ADA)
- improvements in traffic circulation by allowing vehicles using Mathilda Avenue to access the Downtown using Evelyn Avenue
- reductions in traffic on Charles Avenue, a residential street, by constructing a cul-de-sac at its northerly end
- improvements in the visual/aesthetic character of the bridge, ramps, and sidewalks by adding

architectural features, including surface treatments (color, texture), new lighting, landscaping, signs, street furniture, planters, and pavers, as well as Woonerf-style treatment for San Andreas Court

The above improvements will correct the deficiencies cited by Caltrans in year 2000 when they determined that the existing bridge to be "functionally obsolete", meaning that the bridge structure and ramps do not meet current design criteria with regard to motorized and non-motorized traffic operations and safety.

The City Council finds that the Mathilda Avenue Bridge Rehabilitation Project is consistent with the City's General Plan because it complies with the following land use and transportation policies:

- *C3 - Attain a transportation system that is effective, safe, pleasant and convenient.* The project corrects existing deficiencies on the Mathilda Avenue bridge, the on- and off-ramps, and pedestrian ramps, as well as corrects horizontal clearance deficiencies on Evelyn Avenue.
- *C3.4 - Maintain roadways and traffic control devices in good operating condition.* The project upgrades the roadway and pedestrian facilities in accordance with modern design criteria.
- *C3.1.4 - Study and implement physical and operational improvements to optimize roadway and intersection capacities.* The project improves safety and operations on the Mathilda Avenue Bridge. It also constructs a new signalized intersection on Evelyn Avenue at the Mathilda Avenue off-ramp, which will improve traffic operations.
- *N1.5 - Support a roadway system that protects internal residential areas from City-wide and regional traffic.* The project limits thru traffic in the Charles Street neighborhood by constructing a cul-de-sac on Charles Street. The project will not divert traffic onto residential streets.
- *C3.5 - Support a variety of transportation modes.* The project improves the existing pedestrian ramps and nearby sidewalks, which will facilitate bicycle and pedestrian traffic in the area.

The City Council finds that each significant impact identified in the EIR is acceptable because mitigation measures have been required in order to reduce each effect to the extent feasible.

The City Council finds that on balance, of the eight alternatives that were evaluated in the EIR, the Project provides the greatest overall benefit to the community when considering environmental, social, technical, and economic factors. Of the eight alternatives, only three meet all of the project objectives: the Project, the Separate Pedestrian Overcrossing, and the Separate Pedestrian Undercrossing. Each of these three alternatives would result in significant unavoidable construction noise impacts, with the Separate Pedestrian Undercrossing requiring additional and substantial nighttime work. Of these three alternatives, the least costly is the Project ($14.4 million).

The costs of the Separate Pedestrian Overcrossing and Separate Pedestrian Undercrossing are $15.5 million and $19.5 million, respectively. The project is largely funded by Federal and State grants administered through Caltrans, which would otherwise be lost, with no improvements to the bridge, or bridge function.

PASSED AND ADOPTED by the City Council of the City of Sunnyvale, State of California, on March 18, 2008, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Tony Spitaleri
Mayor, City of Sunnyvale

ATTEST:

_____
Gail Borkowski
City Clerk

APPROVED AS TO FORM:

_____
David E. Kahn
City Attorney

Exhibits to this Resolution:

Exhibit A – Mitigation Monitoring and Reporting Program (Revised)